

FEDCO TREES 2026

Welcome to Fedco Trees's 42nd annual tree order!

Our goal is to provide the hardiest and healthiest plants available for cold climates, while supporting plant diversity, small-scale local agriculture, and a fair, cooperative and responsible workplace. We are a division of Fedco Seeds Inc, a small consumer/worker-owned cooperative founded in 1978. Consider joining our co-op or applying for employment with us!

Order by February 20 for best selection and priority shipment. We'll continue taking orders till we run out of plants. All orders are shipped in spring. Orders totaling \$1,200 or more qualify for bulk pricing, about 10% off across all Fedco product lines. If you are a member, you receive an additional 5% off. Get together with friends or neighbors to place one big order for more savings.

Every year, we vary our plant selections. We contract with dozens of growers, and the bulk of our supply is grown locally on small diversified farms in Maine and the Northeast. Nearly all of our fruit trees and many of our shrubs are grown by organic standards and tended by hand, and many of our crops are cultivated with horses. Look for the organic label on perennials that are certified organic.

If you haven't already, check out our Seeds & Supplies and Bulbs for Fall Planting catalogs.

Keep an eye out for an **in-person Surplus Sale** in later May if we have leftovers. Come say hi to us at the various events we will attend over the winter (check website for details). Look for more varieties online as we harvest our crops and post final inventory decisions.

As always, we welcome your comments.

You may say I'm a dreamer But I'm not the only one I hope someday you'll join us And the world will be as one

- John Lennon

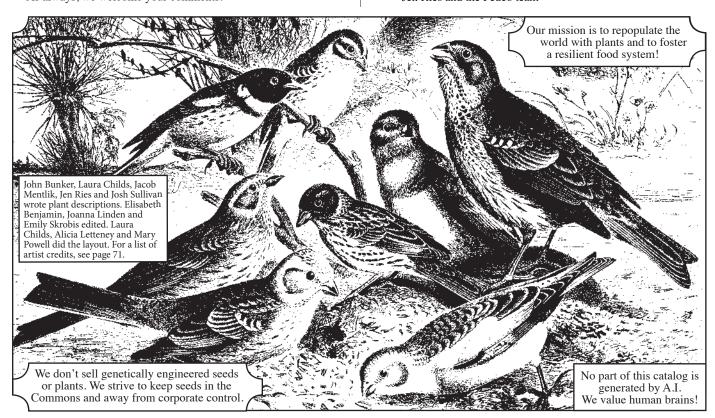
We imagine the flower before we ever see the buds. We imagine the fruit before the tree bears. It's an order of things that most gardeners understand intimately: to hold a seed or a fragile rooted cutting and know what it could become, and to love it into that becoming.

At the end of our last spring shipping season, we were tired to the bone and it seemed impossible to imagine the next season, even though it was time to start the cycle over again. I walked out into the sunlight after we bundled the last plants and most of the crew had gone home, and I saw a tree swallow quietly lift herself from the ground with a stray shred of paper from our box-packing materials. I smiled and thought, Ah, someone has found purpose in the mess. There is a season for everything, and the great wheel spins on. We have good work to do. I was grateful to the swallow for the reminder.

We've dedicated this catalog's theme to birds. They are all our proverbial canaries in the mine, our fellow travelers on this ride, and they need our support. Our winged friends would be content to eat or shelter in so many of the plants we offer in this catalog. If they don't eat them directly, they eat the bugs and caterpillars that do. We've highlighted some of the plants that are most beneficial to birds and hope you and your imagination will join us in our endeavor to fill the world with more plants, not just for ourselves, but for the other creatures as well.

Wishing you a fruitful 2026 season.

- Jen Ries and the Fedco team



Fedco Trees Guarantee Policy

We guarantee to ship you a plant that is healthy, will leaf out, and is true to name. Because we have no control over growing conditions such as weather, soil, cultural practices, pests, wildlife, or weed whackers, we cannot guarantee a plant's survival past leaf break. If you have thoroughly cared for the plant and it does not leaf out by July 31, we will issue a refund or gift certificate credit. We cannot offer replacements. We do not guarantee plants that are potted by you, except for perennials, which are the only plants we recommend for temporary potting. We are not responsible for the quality of plant material in the event your package is not promptly opened. For scionwood or rootstock orders, we do not issue refunds or replacements based on diameter of wood. We do not guarantee the survival of your grafts, the caliper or root size of the stock you receive or that rootstock will be fully dormant upon arrival.

We limit our liability in all instances to the purchase price. The liability of Fedco Seeds, Inc., for breach of warranty, or any loss or damages arising out of the purchase or use of our products, including loss or damages resulting from any negligence whatsoever on our part, or strict liability in tort, shall be limited to the purchase price. By acceptance of the merchandise, the buyer acknowledges that the limitations and disclaimers herein described are conditions of sale, and that they constitute the entire agreement between the parties regarding any warranty or liability.

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Claims for errors in your order must be presented within 30 days of receipt of your order. Claims for any product defects should be presented as soon as possible after discovery and must be made no later than July 31 of the year the plant was received. Failure to assert claims within the aforementioned time frames renders this warranty null and void.

Order by Friday, February 20, 2026

for best selection and priority spring shipment.

• If we have the inventory, we'll continue taking online orders after 2/20. No late paper order forms.

• Scionwood: Online orders only. See page 26.

• For shipping schedule, see page 36.



Where is everything?

| | begin on p | age |
|------------------|---|-----|
| 10 | Apples | 4 |
| Ì | Cider Apples | 16 |
| 1 | Crabapples | 18 |
| 1 | Pears | 19 |
| , | Quince | 21 |
| Ĭ | Stone Fruits | 22 |
| | Scionwood / Rootstock | 26 |
| 3 | Blueberries | 28 |
| 7 | Elderberries | 30 |
| 1 | Strawberries | 31 |
| V. | Raspberries | 32 |
| į | Grapes | 34 |
| ř | Pears Quince Stone Fruits Scionwood / Rootstock Blueberries Elderberries Strawberries Raspberries Grapes Vines Nuts Shade Trees | 35 |
| ì | Nuts | 39 |
| | Shade Trees | 41 |
| | Conifers | 43 |
| ٩ | Small Trees & Shrubs | 44 |
| 1 | Roses | 48 |
| 1 | Willows | 50 |
| 104 | Lilacs | 50 |
| , | Groundcovers | 51 |
| Š | Garden Roots | 53 |
| | Mushrooms | 54 |
| Y STATESON WINDS | Herbaceous Perennials | 55 |
| | Culinary & Medicinal Herbs | 63 |
| ŀ | Tender Summer Bulbs | 65 |
| | | |

p. 36 **Ordering Instructions** p. 37-38 Order Form Perennial Planting Guide p. 56 **Tree Planting Guide** p. 67-70 **Complete Index** p. 71

New for 2026

(or back after a long absence!)

- More Native Plants!
- New Tree Fruits, Grapes & Hops!
- New Highbush & Lowbush Blueberries!
- New Red, Yellow and Black Raspberries!
- New Crabapples!
- New Hickories!
- Osage Orange!
- Sweetbay Magnolia!
- Respect Your Elders Collection!
- Strawberry Jam Collection!
- Shirt-Stainer Cane Fruit Collection!
- Food Forest Collection!
- Birdsaver Shrub Collection!
- Tea Time Perennials Collection!
- Variegated Solomon Seal!
- New Daylilies, Irises, Peonies!
- Astilbes are BACK!
- New Begonias and Dahlias!

Ordering Instructions, see page 36.

- Order online at fedcoseeds.com. You can also check product availability and see color photos of most of our trees, shrubs and perennials.
- We no longer offer tree order pickups, but Maine customers pay only \$10 or \$25 flat-rate shipping! CHAIR PART STATE STATE CASE STATE OF ST

Indigenous Royalties

Fedco will donate 10% of sales on varieties bearing Native American names to Nibezun, a Wabanaki project in Maine that is working to rematriate Penobscot land and to create dialogue on healing throughout the extended community. For more about Indigenous Royalties, see page 25.

Our Variety Descriptions –

• All trees and plants are bare-rooted (except where noted).

Because of the nature of dealing with living commodities, size variations will naturally occur within each crop

• For fruit trees and berries, the exact dates of peak ripeness will vary from place to place.

• The zone hardiness rating will aid you in determining whether a plant will be hardy for you. The average minimum temperature in your area determines your zone (chart on p. 71). All plant descriptions list the coldest hardiness zone. Your own soil conditions, microclimate and topography will be equally important in determining the best varieties for you.

• Please note pollination requirements for fruits, nuts and berries. Some plants are self-pollinating, others require a second plant for pollination, and others require a second variety.

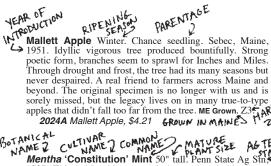
• We strive to give you accurate information

about all the plants we sell. If you notice inaccuracies, please let us know.

Abbreviations:

ME Grown = grown in Maine at one of our small local nurseries.

PPA = Plant Patent Act.



beyond. The original specimen is no longer with us and is sorely missed, but the legacy lives on in many true-to-type apples that didn't fall too far from the tree. ME Grown. Z3 TARDINE 2024A Mallett Apple, \$4.21 GROWN IN MAINES TO SERVE BOTANICAL CULTIVAR COMMON MATURE ASTE NAME 2 CULTIVAR NAME 2 COMMON MATURE ASTAT Mentha 'Constitution' Mint 50" tall. Penn State Ag Stn 1787. This bold cultivar spreads by seed and rhizome to

create deep roots that hold soil, prevent erosion, and thrive in diverse environments. New forces seek to restrict and trample it. Funding has been yanked from the research farm and historical notes scrapped, and many long-standing patches have been carelessly weed-whacked. With steadfast tending by devoted gardeners, it has a chance to regain integrity in due time. Hardy to all zones. (6-8" root clump)

2025B Constitution Mint, \$5.25 PLANT STOCK ITEM MBER

PICK THE RIGHT APPLE! All-Purpose Fresh Eating High Flavor Apple Variety Season Storage Cooking Pies Airlie Red Flesh fall • Ananas Reinette fall 7203 Api Etoile winter • Ashmead's Kernel winter • • 7205 Baldwin • winter Belle de Boskoop winter • • • • 7207 Black Oxford winter Black Twig fall 7209 Blue Pearmain fall • • • Burgundy fall • 72.11 Calville Blanc d'Hiver winter Canadian Strawberry fall • • 7213 Chenango Strawberry summer 7214 Cherryfield • winter 7215 Chestnut • fall 7216 Cortland fall. 7217 Cox's Orange Pippin fall • • 7221 Duchess of Oldenburg summer 7223 Enterprise winter Esopus Spitzenburg winter • • • 7227 Frostbite • • fall 7228 Golden Russet winter • • • 7229 GoldRush winter 7230 Gravenstein summer 7231 Gray Pearmain winter • • • • Grimes Golden fall 7233 Haralson winter • • • Honeycrisp winter Hudson's Golden Gem • • • fall 7238 Idared winter 7239 Karmijn de Sonnaville fall • • 7240 Keepsake winter 7241 Kerr Crabapple summer • 7242 King David fall 7243 King of the Pippins • • fall 7244 Liberty fall • • 7246 Macoun fall 7247 McIntosh fall • • 7248 Milo Gibson fall 7249 Northern Spy winter 7250 Pinova fall • • 7251 Pipsqueak fall 7252 Pristine summer 7253 Red Astrachan • summer 7254 Redfield • • fall 7255 Rhode Island Greening fall Roxbury Russet • • winter 7258 • Scout fall 7259 Shizuka winter • Sops of Wine summer 7265 Sweet Sixteen • fall. 7267 Trailman summer • • 7268 Tumanga fall-winter 7271 Wickson fall • • Williams Pride • summer Windham Russet fall • 7274 Winekist summer • • Wolf River fall 7279 Zabergau Reinette winter 7280 Zestar

Choosing the right apple

Summer apples ripen in summer, are generally firm only for a short period, do not store well, and are often best for cooking.

Fall apples store longer and are useful for a wide variety of purposes.

Winter apples ripen mid to late fall, store well, and reach their best flavor after weeks, or even months, of storage.

Dessert apples are delicious eaten raw.

Cider apples are especially suited to making fermented "hard" cider. Some cider apples are also good dessert fruit, but most are not. Find cider apples on pages 16-17.

Crabapples are 2" or smaller. Some are tasty, or **culinary**. See page 18. **Subacid** means tart!

Russet is a skin texture (fairly common on apple varieties and on a few pears and potatoes) that looks and feels somewhat like suede.

Bloom is a naturally occurring dust-like yeast film on the skin of some varieties of apples, plums, grapes and blueberries.

Choosing a variety: Not every variety may be right for you. All-purpose apples are just that—they're good for a bunch of jobs. If you're planting just one tree, perhaps start there. However, if you're a history buff, consider the historical varieties and maybe plant one that originated nearby. If you don't eat many apples fresh but love pies, go for the pie apples. If you're a dessert connoisseur, skip all the others and go for the highly flavored dessert varieties. Some are strictly for cider. Some are great to put out at the camp for summer use. Some are perfect for those who want fall fruit but don't have a root cellar. Others keep all winter and into the following summer. Read the descriptions and consult the chart. If you have a question about a specific variety, drop us an email: questions@fedcoseeds.com. We'll try to help!

Varieties that bear fruit annually are noted in the descriptions; others are biennial, usually bearing every other year. However with diligent annual pruning and thinning, most trees will produce an annual crop, heavy one year, light the next.

Hardiness zone: The USDA plant zone hardiness map (see page 71 for chart) is a guide designed to assist gardeners and orchardists in choosing suitable plants. The zones are based on the average annual minimum winter temperature. The lower the temperature, the lower the zone rating number, and the "hardier" the plant. Zone 3 is about as cold as it gets in any part of New York and New England. Most of northern New York Vermont, New Hampshire and Maine would all be Zone 3. The central part of the four states would be Zone 4. The southern half of each state would be Zone 5 or 6. This can vary from site to site depending on elevation, proximity to the coast and other microclimatic factors.

When choosing apple varieties, note the zone rating at the end of each description. If an apple has a Z3 rating, you will be able to grow it successfully in the coldest locations in Maine, as well as two or three zones "south." In other words, if the rating is Z3, it may be in its prime in Z3, but should do well down to Z5 or 6. Typically, it will not perform well outside of that approximate range. Note that hardiness works both ways: you can't grow mangoes in Maine, and you can't grow most apples in Florida.

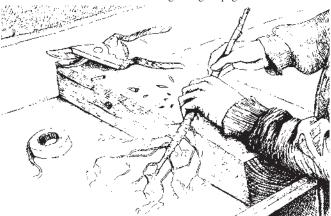
Bloom times: Early season, midseason, late season bloomers—should you be in a tizzy about pollination? No. If there is at least one other apple tree somewhere in your neighborhood, the bees will do their thing, and you'll get fruit. It can be a wild roadside apple tree. It can be an ornamental crab. It can be old or young, in your yard or your neighbor's. But it must be different from yours. In other words, avoid planting ten Honeycrisps if no other apples are in sight.

Most apples flower at about the same time, so timing is almost never an issue. However, if you live on a desert island with only an early bloomer and a late bloomer, you should plant a midseason bloomer, too.

Choosing an apple rootstock

Rootstock determines the size, longevity, hardiness and growth habits of a tree. After enthusiastic response from customers, we continue to offer an assortment of dwarf and semi-dwarf rootstocks in addition to the standard.

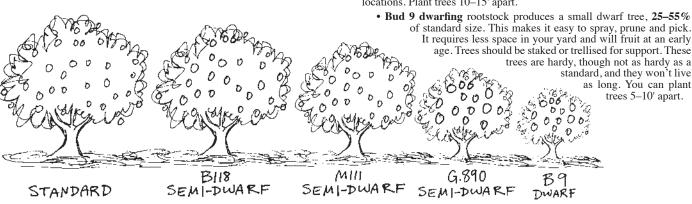
We offer bundles of rootstock for grafting on page 27.



Standard rootstock: Most of the apples we offer are on standard full-sized *Malus domestica* or Antonovka rootstock. Standard trees have deep, substantial—and therefore hardier—root systems. By selecting the varieties appropriate to your district, grafted on standard rootstock, you may well be planting a tree that will be picked by your grandchildren's grandchildren. Standard trees will grow to be large, but you can manage the size with pruning. The largest trees in our orchards are now about 30 years old, yet the tallest are well under 20' due to careful pruning. Although standard-sized apple trees may be planted as close as 10–15' apart, they were typically planted 30' apart in 19th-c. orchards. We generally plant standard trees 20–25' apart with good results. (Trees on standard stock are shipped at 3-6'.)

Semi-dwarf and dwarf rootstocks: We offer an assortment of semi-dwarf and dwarf apple trees on Bud 118, M111, G890 and Bud 9 rootstocks. Each has great advantages for some growers, but these size-controlling rootstocks also have their limitations. Please read on and decide if they are what you want. If you are uncertain, stick with the good old standards, which are extremely rugged, hardier, more tolerant of drought and poor soils, very long-lived, and more capable of thriving under a regime of benign neglect. (Trees on semi-dwarf and dwarf stock are shipped at 2½-5¹.)

- Bud 118 semi-dwarfing rootstock produces a tree about 85–90% of standard size or even larger. Sometimes Bud 118 trees are called semi-standards or even standards. Considered to be more precocious (fruiting at a young age) than standards, and probably more productive. Very hardy, though not as hardy as a standard. Plant about 20–25' apart.
- M111 semi-dwarfing rootstock produces a tree about 65–80% of standard size. Sometimes M111 trees are called semi-standards. More precocious than standards. M111 has a relatively shallow spreading root system, does well in light soils, and is relatively drought tolerant. Prone to suckering; not as long-lived or hardy as a standard tree. You can plant them closer together than standards, about 15–20' apart.
- G890 semi-dwarfing rootstock produces a tree about 55–65% of standard size. Adaptable to different climates and soil types, deeply rooted and hardy. Highly resistant to fireblight—the varieties we offer on G890 are ones we've found to be susceptible to fireblight in some locations. Plant trees 10–15' apart.



APPLE TREES - \$36.00 EACH

Apple Rootstocks

We offer most apple varieties on standard-sized rootstock. Where

A follows the item number in the apple section, the variety is on standard rootstock (*Malus domestica* or Antonovka).

B is on Bud 118 semi-dwarf rootstock,

C is on M111 semi-dwarf rootstock.

D is on G890 semi-dwarf rootstock,

E is on Bud 9 dwarf rootstock.

For more about rootstock, see pages 5 and 27.

Airlie Red Flesh Fall. Possibly a seedling of the European red-fleshed apple Surprise. Airlie, OR, about 1960. Also known as **Aerlies Red Flesh** and **Schwartz Apple**. The medium-sized roundish-conic sometimes elongated fruit is greenish yellow with a pink-apricot blush. Bite into it to find that the flesh is a surprising and beautiful deep salmon color. As friends of ours said, "This is an apple for gazing at, admiring and fresh eating." Probably the sweetest of all the red-fleshed varieties we've tried. Thought to have been discovered by Lucky and Audrey Newelli mairlie, OR. Introduced 40 years later and trademarked as **Hidden Rose** by Thomas Paine Farms in 2001. Sometimes confused with Albert Etter's Pink Pearl. Uncertain bloom time. Z4. **ME Grown**.

7201B on Bud 118 rootstock

Ananas Reinette Late Fall. Unknown parentage. Thought to have originated in France or Belgium as early as the 16th c. Became popular and widely planted in Germany during the 1800s. Medium-sized rounded-conic, sometimes oblong, fruit has rich golden skin dotted with russet freckles. The name translates to 'Royal Pineapple' and the crisp fine-grained flesh is tangy, tart and sweet right off the tree with a citrusy pineapple flavor. These are good keepers; in storage the golden skin deepens to almost orange, while the flesh gets noticeably sweeter without losing its zest. Also good for cooking and pressing. Used as a pollen parent for its bold flavors by famous breeder Albert Etter. Naturally small trees are nice for home gardens. Blooms midseason. Z4. ME Grown.

7202A on standard rootstock

Api Etoile Winter. Known in Europe since the 1600s, probably originating in France. This rare apple, also known as Star Lady Apple, has similar coloring, flavor and aromatics to the more common Lady apple, with one distinct difference: its unusual shape. While all apple cores display a star when cut in half horizontally, Api Etoile's fruit shape is a flattened rounded star, like an apple's stumpy rendition of a star fruit. The five carpels, or seed pockets, make prominent knobs to create this unusual form. A bright red blush over yellow skin further adds to the striking visual appeal of this apple. Api Etoile was extremely popular as a decorative feature on Victorian tables but was also prized for its flavor and storage ability. Scionwood provided by Gidon Coll of the Hudson Valley Apple Project. Blooms midseason. Z4. ME Grown.

7203B on Bud 118 rootstock

Ashmead's Kernel Winter. Unknown parentage. Gloucester, England, about 1700. Possibly a seedling of Nonpareil. An after-dinner apple of unparalleled quality. Not for those who like sweet mild apples. Each bite is an intense aromatic sting of sharp and sweet, with hints of other

indescribable but absolutely wonderful tastes and aftertastes. Beginning to show up here and there in commercial orchards. A good sharp addition to hard cider. Mediumsmall oblate and lopsided orange-goldgreen russet fruits ripen in October. Store until the New Year to reach perfection. Keeps until they're all gone. Moderately vigorous tree may bear irregularly, but it's worth the wait. Somewhat scab resistant. Blooms midseason. Z4.

7204 A: on standard **C:** on M111 rootstock

ME Grown = grown in Maine at one of our small local nurseries.

Baldwin Winter. Wilmington, MA, about 1740. Also called Butters Apple or Woodpecker. Discovered on the Butters Farm by a surveyor planning the Middlesex Canal and noted as a favorite site for local woodpeckers. By 1850 Baldwin was the standard all-purpose home and commercial variety wherever it was grown. It remained dominant in Maine until the terrible winter of 1934 when tens of thousands of trees perished and McIntosh became king. Large round-conic thick-skinned fruit, almost entirely blushed, mottled and striped with red and deep carmine. Hard crisp juicy yellowish flesh makes excellent eating and cooking. Makes top-quality hard cider, blended or alone. Keeps till spring. Vigorous adaptable hugely productive long-lived healthy tree. The late renowned entomologist Ron Prokopy described Baldwin as "not practical commercially due to biennialism but the only apple that is both disease and insect resistant." Blooms early to midseason. Z4. ME Grown.

7205 A: on standard rootstock E: on Bud 9 rootstock

Belle de Boskoop Winter. Bud mutation of Montfort. Boskoop, Holland, 1856. For generations every European backyard had a Boskoop. Even today, chefs in Europe know Boskoop, which cooks and bakes beautifully. Quickly reduces to a nice sauce: yellow, soft and medium tart. Big blocky somewhat ribbed fruit largely patched with green and russet, sometimes with a reddish blush. Grower David Maxwell of Nova Scotia calls it "an absolutely outstanding apple...seemingly resistant to everything. I didn't spray them at all and they are absolutely clean. The taste is equally outstanding." Rather tart right off the tree. In storage the acidity softens and it becomes quite tasty fresh. Keeps well. Triploid: not a pollinator for other varieties. Blooms early. Z4. ME Grown.

7206A on standard rootstock

Black Oxford Winter. Hunt Russet x Blue Pearmain. Paris, Oxford County, ME, about 1790. This outstanding apple, a favorite long ago around much of Maine, has made a huge comeback. Neck and neck with Honeycrisp as our bestselling apple. Medium-sized round fruit, deep purple with a blackish bloom. From a distance you might think you'd discovered a huge plum tree. Excellent pies, superb late cider. Leave the skins on for a delightful pink sauce. Best fresh eating late December to March, but we've eaten them in July and they were still quite firm and tasty. They get sweeter and sweeter as the months go by. Good cooking until early summer. Some insect and disease resistance. Unusual light pink blooms early to midseason. Z4. **ME Grown**.

7207 A: on standard rootstock C: on M111 rootstock E: on Bud 9 rootstock

Black Twig Fall. Seedling of Winesap. Fayetteville, TN, c. 1830. Also known as **Paragon**. This apple has a muddled history with much debate over whether it is distinct from Mammoth Black Twig, aka Arkansas. Also commonly mixed up with another famous southern apple, Arkansas Black. Confusing origins and nomenclature aside, Black Twig became one of the most popular apples in the South and was among the favorites of Lee Calhoun, famed apple hunter and author of *Old Southern Apples*. Made its way up North, and we've discovered some ancient trees in an old overgrown orchard row in central Maine. Medium to large, somewhat flattened and oblate, deep red with some striping over a green ground

color. Yellowish flesh is firm but juicy, subacid and aromatic. Great for fresh eating, cider and cooking. Great keeper, and like Arkansas Black it reaches peak flavor after some time in storage. Productive trees show natural resistance to many pests and diseases including fireblight and rust. Blooms midseason.

Z4. ME Grown

7208A on standard rootstock

Growing Apples

Soil: Adaptable, but prefers well-drained fertile soil.

Sun: Full.

Pollination: Requires a second variety for pollination. Any apple or crabapple blooming within a quarter mile will probably do.

Spacing:

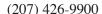
For trees on standard and Bud 118, 20–25' apart.

M111 semi-dwarf, 15-20' apart.

G890 semi-dwarf, 10–15' apart.

Bud 9 dwarf, 5-10' apart.

Planting and Pruning: See pages 67-70 for instructions on soil prep, planting, pruning and pest control.



Blue Pearmain Fall-Winter. Thought to be from Middlesex County, MA, 1700s. Our favorite for baked apples—it was made to be stuffed. Moderately juicy flesh, firm, dense and slightly crisp, sweet with a bit of a tart background flavor. Incredibly beautiful medium to very large fruit is streaked and splashed with purplish red, mottled with russet and covered with a distinct dusty blue bloom. In a pie, it has just enough firmness and a good balance of sweet and tart with hints of pear. Tart coarse yellow sauce cooks up in a couple minutes. Tasty eaten out of hand. One of New England's most famous varieties. Mentioned by Henry David Thoreau as a favorite in his wonderful essay "Wild Apples." Grown throughout much of Maine for well over 200 years. Massive trees still found here and there. Keeps in the root cellar until midwinter. Blooms midseason. Z4. ME Grown.

7209A on standard rootstock

Burgundy Late Summer-Early Fall. NY 161 Monroe x NY 18491 (Macoun x Antonovka) NY Ag Exp Stn, 1974. Northern Aroostook County fruit growers Steve and Barb Miller introduced Burgundy to us as their favorite cooking apple. Striking for its large 3" size and glossy purplish-red roundish fruit. Waves and rays of red in the firm juicy flesh. Strong distinctive aroma and a pleasantly unique flavor with a tart zingy aftertaste. One taste tester said, "Wow, hey, that's really different!" Steve said, "It reaches out and grabs you!" Makes an aromatic well-balanced early cider. Bears annually, and fruit hangs on for extended picking. Stores about two months. Recommended for all northern districts. Extremely hardy. Blooms late. Z3. **ME Grown**.

7210D on G890 rootstock

Calville Blanc d'Hiver Winter. Unknown parentage. France or Germany, 16th c. Also called White Winter Calville. Famous as a dessert and cooking apple for more than 400 years. Steve Wood of Poverty Lane Orchards in Lebanon, NH, called it "the best culinary apple in the world." Large flattish pale green-yellow fruit with deep ribs and a dotted orangered blush. Creamy-white aromatic fine-grained juicy flesh with a sweet distinctive effervescent flavor. Also recommended for vinegar, fresh cider and as a sharp (acid) component in hard cider. Should be stored a month to reach peak flavor. Will keep until midwinter. Very vigorous strongly upright vase-shaped tree with good branch angles. Not for the coldest areas though certainly hardy to Zone 4. Blooms midseason. Z4. ME Grown.

7211 A: on standard rootstock C: on M111 rootstock

Canadian Strawberry Fall. Unknown parentage. Solon, ME. Beautiful superb-tasting dessert apple. Surprisingly juicy distinctly tart full-flavored medium-to-large round-conic fruit. Rich butteryyellow skin overspread with a veil of vibrant red-orange. Very good early season cider. Perfectly ripe at the end of September in central Maine where, in a good year, you won't find a better apple. At our Common Ground Fair taste tests, it usually vies for the crown with Cox's Orange Pippin. It was the overwhelming favorite in 2017 and runner-up in 2018 and 2019. In 1996 the late Roy Slamm convinced us to visit and subsequently propagate nursery stock from the three ancient "Strawberry" trees on his South Solon farm, thus saving the apple from almost certain extinction. Popularized throughout Fedcoland as "Canadian Strawberry" but recently found to be a DNA match with the old New York apple Washington Strawberry from the mid-1800s. Fruit keeps about a month. Triploid: not suitable for pollinating other varieties. Blooms midseason. Z4. **ME Grown**.

7212A on standard rootstock

Chenango Strawberry Late Summer. Lebanon, NY, or possibly Connecticut, c. 1850. Excellent tender-skinned tender-fleshed dessert and cooking apple ripens over several weeks in September. Subacid and aromatic. Yellowish-white skin covered with soft pastel pinky-red "strawberry" stripes and a very long famously distinctive conic strawberry shape. One of the more famous American heirlooms—there's no other apple like it. Originally called Frank, after the man who first introduced the variety. Another early synonym was Jackson Apple, possibly his last name. Also known by several other synonyms including Zepherus Chernogous. Wow! Tends to bear annually. Keeps only a week or two. Blooms midseason. Z4. Indigenous Royalties. ME Grown.

7213B on B118 rootstock

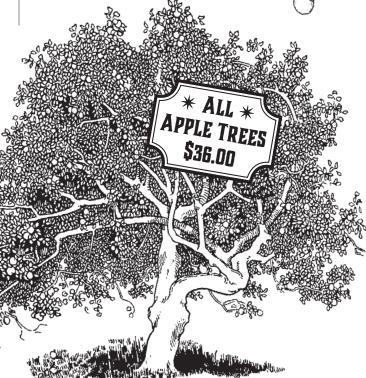
Cherryfield Fall-Winter. Westfield Seek-No-Further x unknown. Wyman B. Collins intro, Cherryfield, ME, about 1850. Also called Collins. Popularized more than 100 years ago by David Wass Campbell of Cherryfield and Welton Munson of UMaine. This all-purpose variety does everything well. We love it. Relatively tart with only a hint of sweetness. Makes a fairly quick tart sauce with a smooth texture-the skins mostly dissolve. Good in salads. Makes a highly flavored pie with great color and texture. Excellent sliced up on pizza. Irregular conic shape, washed and striped with pink. Ripens mid-October and keeps until the end of March. Rediscovered with the help of Margery Brown, Larry Brown, and Kathy Upton, all of Cherryfield, ME. Recent DNA profiling appears to show that what we know in Maine as Cherryfield could be a local synonym for the Illinois apple Salome and may also have been known as **Benton Red** around Maine's Kennebec County. It's also possible that we have not yet found the true Cherryfield. As we learn more about this connection, we'll keep you posted. Tree is vigorous, hardy, spreading and productive. Blooms early-midseason. Z4. ME Grown.

7214A on standard rootstock

Chestnut Early Fall. MN 240 (Malinda x open-pollinated) U Minn, 1946. A dessert crab with truly excellent fruit for fresh eating, pickles and sauce. Round 2" yellow and bronze-red apple with some russeting. Firm crisp juicy fine-grained very sweet yellowish flesh. For a growing number of people in central Maine, late September is

Chestnut apple time. A lot of people love this apple and it always scores high at our Common Ground Country Fair taste tests. Chestnut alone with no sugar makes a sweet and subtle sauce. Not a keeper, but can be stored for a month or two. Vigorous, somewhat weeping, medium-sized productive tree tends to bear annually. Disease resistant. Beautiful in bloom, mid-late season. Z3. ME Grown.

7215A on standard rootstock



Fertilizer Mixes for Fruit Trees Young and Old Available from Fedco's Organic Growers Supply!

Our house-blended mixes make feeding your fruit trees a cinch.

- Hole-Istic Spring Planting Mix Recommended for fruit trees at planting time. Add 3 lb per tree hole. Available in 3-lb and 30-lb bags.
- Fruition Mix Bearing fruit trees may not require fertilization every year, but if your tree put on 4" or less of terminal growth in the previous season then our Fruition Mix will put new spring in its step. In spring apply 10 lb per 1" trunk diameter, or a 45-lb bag per tree 5" and over, out to the drip line, and then cover it with mulch.
- Ancients Rise Mix A unique blend for revitalizing old apple trees. Apply in fall or spring, ideally in conjunction with a thoughtful pruning program. Apply one 45-lb bag per old tree.

Find these mixes and more at fedcoseeds.com



Cortland Fall-Winter. Ben Davis x McIntosh. NY Stn, 1915. Although never as important as McIntosh, Cortland remains very popular throughout northern New England even in this era of many new introductions. Medium-large slightly ribbed dull red fruit with a purple blush. Excellent eating and cooking. Slow-oxidizing white fine-grained crisp tender juicy flesh: very good in salads. Produces a surprisingly delightful cider, fresh or fermented, in a mix or even on its own. Stores for a month or so. Vigorous tall upright spreading tree. Annual producer of heavy crops. A recent UMass study showed Cortland's resistance to apple maggot fly. Bears young; remove fruit for the first year or two to avoid stunting growth. Susceptible to scab. Blooms midseason. Z4. ME Grown.

7216 A: on standard rootstock C: on M111 rootstock E: on Bud 9 rootstock

Cox's Orange Pippin Fall. Possibly a seedling of Ribston Pippin. Near Slough, Bucks, England, around 1825. Deservedly one of the most famous of all apples. Not only one of the best eating apples ever but also one of the most sought-after in modern apple breeding; parent or grandparent of many other varieties. Revered in the U.K. Medium-sized all-purpose aromatic fruit is red-orange to red with orange russet striping and wash. Perfectly balanced slightly subacid flavor and crisp juicy tendere flesh improve with storage. Moderately vigorous moderately productive tree bears young and annually. Prefers cooler climates and higher pH. The oldest Maine Cox's we know is about 60, thriving in Mercer. Scab resistant. Blooms midseason. Z4. ME Grown.

7217 A: on standard rootstock C: on M111 rootstock

Duchess of Oldenburg Late Summer. Russia, well before 1800. Also called **Duchess** or simply **Dutch**. Imported to North America in 1835 and named in honor of Catherine Pavlovna, Grand Duchess of Oldenburg, sister of Czar Alexander. Extremely hardy. Medium-sized round red-striped fruit is crisp, tender, juicy, subacid and aromatic. Highly recommended for all sorts of cooking, especially pies and sauce. If you live where it's cold and you're looking for one apple, this is it. Historically planted extensively wherever growers needed extreme hardiness. Still popular in Aroostook county and other northern districts. Small to medium-sized adaptable tree. Duchess seedlings come relatively true to type, are rugged and hardy, and make good rootstock for grafting (known as 'Borowinka' in the nursery trade). Scab resistant. Does not perform well in warmer districts. Blooms early-midseason. Z3. **ME Grown**.

7221A on standard rootstock

Enterprise Fall-Winter. Coop 30 [PRI 2693-1=(PRI 1661-2 x PRI 1661-1)] PRI Coop, 1993. From the well-known Purdue-Rutgers-Illinois apple-breeding program, a highly recommended fresh-eating apple. Medium-large roundish red-orange fruit is crisp, firm, juicy with a rich spicy flavor. Stores for 6 months or more. Flavor improves in storage, with best eating about a month into winter. Longtime readers of the Fedco Trees catalog know we can be a bit skeptical when it comes to modern varieties. We were reluctant to pay much attention to Enterprise for years, but now have added it to our list of varieties worth planting. Two of our favorite Maine growers, Steve Meyerhans of Fairfield and Joe Vachon of Stetson, are among those who have raved about this fruit. Annual bearing, scab immune, resistant to powdery mildew, cider-apple rust and fireblight. Blooms late-season. Z4. ME Grown.

7223A on standard rootstock

Esopus Spitzenburg Fall-Winter. Reinette Franche x unknown. Esopus, NY, before 1776. For more than 200 years "Spitz" has been a choice dessert and culinary variety, mentioned in nearly every list of best-flavored apples. Slightly subacid, crisp and juicy. Excellent acid source for sweet or fermented cider. Medium-large bright red round-conic fruit, covered with russet dots. Moderately vigorous tree with easily trained wide-angle branches. Forever famous as Thomas Jefferson's favorite apple though performs much better in New York and New England than Virginia. Moderately susceptible to scab though we have never sprayed ours with fungicides and the fruit has been great. Blooms mid-late season. Z4. ME Grown.

7224 A: on standard rootstock C: on M111 rootstock

Frostbite Fall-Winter. MN 447. Unknown parentage. First fruited in 1921; named and introduced by U Minn in 2008. A massively flavored dessert apple, among those we most look forward to each fall. Likely the most distinctive, complex and unusually flavored apple you'll ever try. Astonished eaters have described it as tasting like molasses, olives, sugar cane, cheap whiskey, yogurt, tobacco juice, and so on. We love it. The aromatic crisp crystalline apricot-orange flesh, with its occasional red staining, is so juicy it might run down your hand. The roundish fruit is medium-sized and entirely covered with dark bluish-purple stripes. Lost in the dustbin of weird apples for nearly 90 years before it was finally named and released. Extremely hardy, productive and reliable; at its best in colder districts. A parent of the popular Sweet Sixteen and Keepsake, and grandparent to Honeycrisp. Blooms midseason. Z3. ME Grown.

7227 A: on standard rootstock
E: on Bud 9 rootstock

C: on M111 rootstock

Golden Russet Winter. Uncertain origin. Thought to be from England, New York or New England, before 1800. Round medium-sized russet fruit. Excellent eating; keeps all winter and well into spring. One of the best apples dried. The champagne of cider apples, ripening late in

fall when the best sweet cider is ready to be made: sweet, balanced, thick and smooth. Also recommended as a sharp component for fermented cider. For more than 100 years, orchardists have been attempting to sort out the various russets. Several different apples have been called Golden Russet. Most resemble one another visually but differ in fruit qualities and tree habits. This

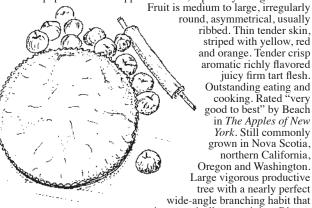
is most likely the Golden Russet of western New York—we continue to work on unraveling this mystery by DNA testing various "Golden Russet" types. Vigorous diverging up-curving tree with long willowy branches. Scab resistant. Blooms early to midseason. Z4. ME Grown.

7228 A: on standard rootstock C: on M111 rootstock E: on Bud 9 rootstock

GoldRush Winter. Co-op 38 {PRI 2750-6=[Co-op 17 (PRI 1689-100) x Golden Delicious]} PRI Co-op, 1994. The first of the disease-resistant varieties from the Purdue-Rutgers-Illinois apple breeding program to have superior storage qualities. Not only that, it's probably the best-tasting apple to come out of that program. Medium to large round-conic fruit has uniform deep greenish-yellow opaque chewy skin that turns golden in storage. Creamy-white green-flecked flesh is hard, very crisp, juicy and tart. Excellent flavor. Serve them for dessert in February and March and no one will be disappointed. Becoming very popular with cidermakers and commercial orchardists. Ripens late but successfully in central Maine. Ours have stayed firm and delicious through early June in the root cellar. Highly resistant to scab and powdery mildew. Moderate fireblight resistance. Blooms midseason to late. Z4. ME Grown.

7229 A: on standard rootstock E: on Bud 9 rootstock

Gravenstein Late Summer. Thought to be of Russian, Italian or German origin, before 1700. Brought to the U.S. in the early 19th c. Probably the most famous of all pie apples. Rightly so. It's great. By 1880 it was also the most popular summer apple in Maine, especially along the coast.



requires practically no training. Ripens over several weeks. Too tender for the coldest areas of New England. Triploid: not suitable for pollinating other varieties. Blooms early, Z4/5.

ME Grown. 7230A on standard rootstock

Gray Pearmain Fall-Winter. Tolman Sweet x unknown. Probably Skowhegan, ME, before 1870. Absolutely delicious dessert apple with a distinct pear flavor and firm white juicy mildly tart flesh. Steadily gaining a devoted following. Medium-sized slightly ribbed and muffin-shaped

fruit has a soft opaque greenish-yellow skin with a rosy pink blush, a russet veil, and a greyish bloom. Produces excellent juice. Pick late and eat them in the fall and all winter. At a late-fall apple tasting at the Maine Heritage Orchard, we had to stop at Gray Pearmain because every apple that followed paled in comparison. Not long ago the only trees we knew of were at The Apple Farm in Fairfield, across the town line from Skowhegan. Through the generosity of Marilyn and Steve Meyerhans, the Gray Pearmain

is now grown throughout Maine and beyond. Annually bearing easy-to-grow medium-sized spreading tree. Blooms midseason. Z4. ME Grown.

7231A on standard rootstock

Grimes Golden Fall. Parentage unknown West Virginia, 1804. Tart citrusy crisp dense firm fruit is excellent for both dessert and cooking: wonderful spicy fresh eating, pies, applesauce and cider. Medium-sized roundish fruit with opaque yellow skin scattered with grey russet dots and an occasional faint blush. All-around excellent variety grown in old Maine orchards for more than 100 years. This is a perfect apple for the New England homestead

bonus is that the fruit doesn't ripen all at once. In central Maine they begin to drop mid-October. We collect the drops and use them right up. Around Halloween we pick the bulk of the crop to store in the root cellar until late winter. Productive precocious tree. Blooms mid-late season. Z4. ME Grown.

7232B on B118 rootstock

north to about Bangor. An added

Haralson Winter. MN 90 (Malinda x open-pollinated) U Minn, 1923. One of the first introductions from the Minnesota Horticultural Research Center and still the most commonly grown apple in Minnesota. A nearly perfect all-purpose apple for those in northernmost areas. Roundish-conic bright red-striped to mostly solid red fruit, with moderately conspicuous dots and some russeting. White firm crisp juicy flesh. Pleasant sprightly subacid flavor for fresh eating, pies, baking, sauce, freezing and cider. Highly productive and reliable. Harvest in October, keeps until March. Extremely hardy naturally small tree with a strong central leader and well-formed wide-angled branching habit. Sets fruit heavily; thin some of the small apples to ensure larger fruit size and encourage annual cropping. Fruit quality and size also seems to respond noticeably to better soils. Blooms late. Z3.

7233A on standard rootstock

Honeycrisp Winter. MN 1711 (Keepsake x open-pollinated) U Minn, 1991. Medium-large fruit, mottled and striped red over yellow. Sweet and juicy with hard snapping-crisp texture. Top quality in September. Improves steadily in storage. Unusual because it ripens in early fall yet keeps up to seven months in the root cellar. First of the many excellent University of Minnesota intros to receive large-scale commercial attention, now has a huge following. Rivals Black Oxford as our bestselling apple. Probably best planted north of Massachusetts; less suited to warmer districts. Tends towards annual bearing. Relatively small low-vigor upright spreading tree. Above-average scab resistance. Blooms mid-late season. Z3. **ME Grown**.

7234 A: on standard rootstock
C: on M111 rootstock
E: on Bud 9 rootstock

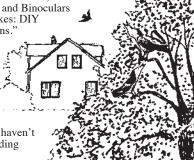
You may not have achieved Zen, but your windows can!

As we try to attract birds to our gardens with native plants or feeders, it's especially horrifying when our feathered friends slam into the kitchen window. Birds are up against a lot these days—habitat loss, climate change, housecats—so we were thrilled to discover the concept of Zen Curtains. More effective than paper cutouts taped to glass, the "curtains" are simply strands of paracord hung outside the window so birds can see them. Cheap and easy.

We made ours with Paracord Planet's "drab olive" cord. It elegantly blends in with the natural environment, and birds can still see it. (If your aesthetic is more hot pink, go for it.) There are a few ways to do this, but we liked the instructions on the Birdseed and Binoculars blog post "Reduce Bird Strikes: DIY Birdsavers Zen Wind Curtains."

The vertical cords are secured to a horizontal top cord. If your site is windy, you might want to secure the "curtains" at the bottom as well. Cords are spaced wide enough that they don't detract from the view. Since installing these curtains, we haven't witnessed a single bird colliding with our windows. It works!

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APPLE TREES - \$36.00 EACH

Hudson's Golden Gem Fall. AD Hudson's Wholesale Nurseries, Tangent, OR, 1931. A wild seedling discovered in a fence row and

rangent, OK, 1931. A with seedining discove introduced soon afterward. A truly fine dessert variety of unique appearance. Exceptional flavor, and sweet juicy crisp smooth firm-but- melting yellow pear-like flesh. Highly recommended for those who love to eat their apples out of hand. Nearly everyone loves the flavor after a single bite. Magnificent medium-to-large distinctly conical and beautifully russeted long-stemmed fruit. Skin a light yellow-tan overlaid with a fine weave of light and dark browns.

A favorite in Oregon, more recently gaining notice practically everywhere apples are grown. Stores several months. Productive scab-resistant tree resists powdery mildew and fireblight. Blooms mid-late. Z4. ME Grown.

7235B on B118 rootstock

Idared Winter. Jonathan x Wagener. Idaho Exp Stn, 1942. A popular all-purpose commercial apple in New England that has a lot going for it. Delicious for fresh eating, cooks well in pies and sauce, and keeps until late spring. One year on May 20 we pulled one out of the root cellar and it was still firm, tasty and spritely. Medium-large roundish ever-so-slightly ribbed fruit, almost entirely blushed with a solid bright cheerful "1940s red." Sometimes with a russet patch around the stem. Firm smooth finegrained juicy pure white flesh is mildly yet decidedly tart, with enough flavor to distinguish it from the more tasteless sweet inventions of recent times. Productive annual-bearing small to mid-sized tree. Early bloomer. Z4. ME Grown.

7238A on standard rootstock

NEW! Karmijn de Sonnaville Fall. Cox's Orange Pippin x Jonathan. Bred by Piet de Sonnaville, Wageningen Res Stn, Netherlands, 1949; released commercially in 1971. A stunner in both looks and flavor; one of the best of the Cox's types. Medium-to-large conical fruit has over a green-yellow base a bright orange-red blush, darker carmine stripes and lots of russet. High in both sugars and acidity, the intense flavors and arona can be overwhelming fresh off of the tree, but they mellow and even improve after some time in storage. Great for fresh eating and cider. Triploid: will not pollinate other varieties. Blooms midseason. Z4. ME Grown.

7239A on standard rootstock

Keepsake Winter. MN 1593 (MN 447 [Frostbite] x Northern Spy) U Minn, 1979. One of the best of all winter storage varieties. Fine-textured flesh is hard, crisp, juicy and sweet. Excellent aromatic flavor, but wait about a month after picking before eating. Well named—keeps until July in the root cellar. Irregular conic medium-sized fruit is almost entirely overlaid with stripes and a wash of very deep red. Same parentage as Sweet Sixteen. Resembles Frostbite and Sweet Sixteen in appearance and taste, although the flavor is not quite as intense. Fruit size can be somewhat small. Don't be afraid to thin the crop each year 3 or 4 weeks after petal fall. You'll be happy you did. Moderately vigorous medium-sized tree reaches its prime in northern New England and the Upper Midwest. Somewhat resistant to scab. Blooms late. Z3. **ME Grown**.

7240B on B118 rootstock

Kerr Crabapple Late Summer. Morden 352 (Dolgo x Haralson) Morden, Manitoba, Canada, 1938. Introduced by the famous Canadian plant breeder WL Kerr. Firm deep red ovate 2" fruits are a tasty snack fresh off the tree, and even better after storage. They keep well. Be sure to thin fruitlets so the remaining apples size up. We love culinary crabs, and this one is especially good for brandying. Pack fruit into a mason jar with a scoop of sugar and cover with your favorite vodka. Let stand a year or two; flip it upside-down now and then. Extremely productive and precocious, somewhat spreading vigorous medium-sized tree. Heavy annual long-lasting bloom of single white flowers makes this a great pollinator for other varieties. Early to midseason blooms. Exceedingly hardy. Z3 or maybe even Z2. **ME Grown**.

7241C on M111 rootstock

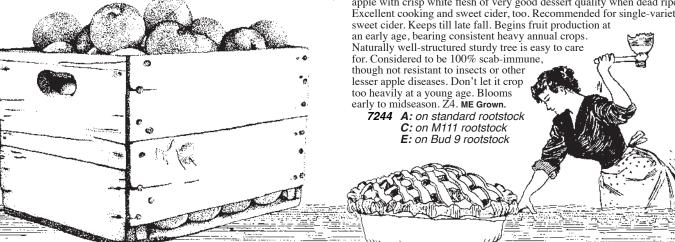
King David Fall-Winter. Chance seedling, thought to be Jonathan x Arkansas Black. Washington County, AR, 1893. Stark Brothers Nursery intro, 1904. King David has a reputation as an intensely flavored apple. The initial bite is an explosion of flavors—pineapple, tangerine, lemon, sweet, sour, tart, sharp, aromatic and spicy. You may wince or moan or scream. You may see stars. Fine juicy flesh is firm yet tender and distinctly yellow. Known primarily as a dessert apple, but also good for pies and sauce. Medium-sized round-oblate-conic fruit is very dark solid maroon—nearly black. Occasionally found in old Maine orchards. The tree is vigorous, bearing young and regularly. Ripens in fall and keeps



King of the Pippins Fall-Winter. England, 19th century. Introduced by Kirke of Brompton and previously known as Golden Winter Pearmain, first recorded in 1800. A fine dessert apple with a complex and aromatic flavor. Medium-sized apples are roundish-oblate and golden yellow with flushes of orange, streaks of red and prominent russet dots. Long slender stem in a deep funnel-shaped cavity. Ripens in October and keeps for a couple of months. Not to be confused with the French apple Reine de Reinette (translated as 'Queen of the Pippins'), which has been popularized by Scott Farm Orchard in Vermont. Bears annually in our central Maine trial orchard and has shown some natural disease resistance with no spray. Z4. ME Grown. BACK after a long absence!

7243B on B118 rootstock

Liberty Late Summer-Fall. NY 55140-19 [Macoun x PRI 54-12 (PRI Co-op complex cross includes Rome Beauty, Jersey Black, McIntosh, Wealthy and *M. floribunda*)] NY Stn, 1978. One of the best of the disease-resistant varieties, particularly in the Northeast. Somewhat similar to Macoun. Handsome medium-sized round-conic bluish-pinkish-red apple with crisp white flesh of very good dessert quality when dead ripe. Excellent cooking and sweet cider, too. Recommended for single-variety sweet cider. Keeps till late fall. Begins fruit production at



Macoun Fall. NY 547 (McIntosh x Jersey Black) NY Stn, 1923. This is an apple with a near cult following, even though practically no one seems to know how to pronounce the name. (It rhymes with *town*, not *tune!*) Especially good choice for those who like McIntosh but live south of Maine where Macs might not reach their prime. Medium-sized ribbed lobed truncate fruit, almost entirely covered with a dark purplishred blush. The very juicy aromatic white flesh is crisp with a rich sweet flavor. Excellent for fresh eating. Large vigorous upright spreading tree. Moderately productive. Although susceptible to scab, the fruit appears to be less affected than McIntosh. Macoun also shows some natural resistance to insect damage. Blooms mid-late season. Z4. **ME Grown**.

7246A on standard rootstock

McIntosh Fall. Thought to be a seedling of Fameuse or perhaps St. Lawrence. Dundela, Ontario, 1811. First discovered by John McIntosh on his farm near the St. Lawrence River. Originally called Granny's Apple, then McIntosh Red, sometimes Gem, and finally McIntosh or simply Mac. Beginning in about 1930, the most important apple in the Northeast until Honeycrisp appeared. Although not planted in many other locations, it grows to perfection in our cool climate. There are many strains of McIntosh, some selected for traits other than flavor, and the variety has gotten a bad reputation. Despite the criticism, this is a delicious aromatic apple. Excellent for sauce but turns to soup in a pie. Annual cropper. Large beautifully rounded spreading strong tree is easy to manage. Beware, however: it's extremely susceptible to scab. It also doesn't keep well in ordinary storage. Blooms midseason. Z4. ME Grown.

7247A on standard rootstock

Milo Gibson Late Fall-Winter. Northern Spy x Golden Delicious. Milo Gibson intro, Linnton, OR, before 1975. Originally called Linnton. Intensely flavored unusual dessert variety, in the same class as Frostbite, Hudson's Golden Gem, Sweet Sixteen and Wickson. In a good year the dense juicy flesh can taste unmistakably of licorice. Good enough to win late-fall taste tests. Still firm and flavorful in late December. Mediumlarge roundish fruit, partly greenish-yellow with an orange-red blush and an assortment of russet patches and netting. Presumably a wild seedling discovered by Gibson (1905-1974), one of the founders of the North American Fruit Explorers (NAFEX). A year after his death, his close friend Fred Ashworth organized the effort to change the apple's name to honor the longtime fruit explorer. Blooms midseason. Z4. ME Grown.

7248B on B118 rootstock

Northern Spy Winter. Chance seedling. East Bloomfield, NY, about 1800. One of the most famous of all heirloom apples. Very large delectable all-purpose fruit, covered with pink and light red stripes. Very juicy and tender. Even when the thin skin bruises, the fruit keeps extremely well. Cooks up quickly into a loose mild sauce. No need to remove the skins. Its reputation as a pie apple is well deserved: makes a very good single-variety pie! Recommended as a source of sharp juice in cider. Its one drawback is being slow to come into bearing, although for us it's been worth the wait. Medium-to-large moderately vigorous longlived tree. Good scab resistance. Leafs out late and blooms late season. Z4. **ME Grown**.

7249 A: on standard rootstock C: on M111 rootstock

Pinova Fall. Golden Delicious x Clivia (Cox's Orange Pippin x Duchess) Dresden-Pillnitz, Germany, 1986. Also called Corail and Sonata and sold commercially as Piñata. Delicious and highly attractive apple bred for three important characteristics: disease resistance, shelf life and flavor. It excels at all three. Medium-sized conic fruit is bright yellow with a pinkish-orange blush and crimson striping. Great fresh eating, it combines the sweetness of Golden Delicious and the complex flavors of Cox. Flesh stays white when sliced; a good choice for lunchbox snacks and salads. Scionwood courtesy of Fedco growers at the Wild Mountain Cooperative in Greene, ME, who highly recommend Pinova as an easy-to-grow annual producer. Scab and fireblight resistant. Blooms midseason. Z4. ME Grown.

7250A on standard rootstock

Pipsqueak Fall. Fedco intro! MN 447 (Frostbite) x Chestnut Super Chilly Farm, Palermo, ME, 2009. Small russeted dessert apple with a long stem and a few faint pinkishorange stripes. The rough skin almost feels like a kiwi. A large Pipsqueak might approach 2" in diameter. For such a diminutive fruit it packs a lot of flavor. We eat them raw or baked whole rolled in cinnamon and sugar. One of our friends called it "the best apple I've ever eaten." It's surprisingly juicy, full of good flavor—tropical like a piña colada. Great fresh-eating crabapple—rivals Trailman. Ripens around October 1 in central Maine. A favorite of the kids at the Community School on Mount Desert Island in the fall of 2015. Blooms midseason. Z4. ME Grown.

7251B on B118 rootstock



In the company of birds by Erin Robinson

My breath puffs crystal wisps into the winter air as I grumble at myself. I side-eye the now-frozen crop of Pinova apples, dulled red orbs hanging halted in their hopeful final steps. Guilt riddles me while I continue pruning the Belle de Boskoop nearby, unable to stop casting glances over at my error as a fruit grower: The crop was too big, I didn't have enough room or time for them, even if we had stripped them for cider it wouldn't cover the labor cost, all that work to grow them to be left suspended in waiting, never making their way to be enjoyed in one form or another, what a waste...

A shy flutter of wings and a few dozen glinting copper bellies catch my eye—a flock of American robins, who aside from the Pinova's waning red, paint the only other color across the crisp shades of white in the classic Vermont winterscape. The birds are eyeing me, warily, cautiously easing their crew closer and closer, chirping among themselves in discussions of strategy and courage. In the flick of a tail feather they swoop in, synchronized dark wings dancing in a flurried choreography upon the frigid air until they gracefully land on their intended destination, the crop of frozen apples. Avian glee erupts in force as they celebrate their success.

"Well I'll be," I whisper in pleasant surprise. "Not a waste at all." I am always in the company of the birds. Orchard work could be considered lonely but for birds' ever-presence, more heard than seen. They frolic and glide among the trees, teasing flashes of vibrant underbellies and bits of wing, calling out their unique songs to one another. Oak-a-Lee! Chip-chip! Chicka-dee-dee-dee! An unrehearsed euphony echoing throughout every row. They weave different versions of intricate nests for delicate speckled or brilliant blue eggs and become devoted parents when their precious young blindly emerge, all the while doing their fair share of pest mitigation. There is no creature more deserving to indulge in this frozen apple banquet than a feathered orchard tenant.

Over the course of a week, the unharvested Pinovas that had felt like a gnawing error, slowly disappeared. They became a beneficial slice of nourishment and joy for dozens of birds during a difficult season. With this valuable new perspective, I plan a future practice—a sacrificial offering of apples will be left hanging on, simply for the birds, a gift of thanks for their secret company.

 Erin is the orchardist at Scott Farm Orchard in Dummerston, VT, and one of our beloved collaborators and scionwood suppliers.

APPLE TREES - \$36.00 EACH

Pristine Summer. Coop 32 (Coop 10 x Camuzat). PRI Coop, 1994. Disease-resistant medium-large roundish-oblate clear-yellow fruit is mildly subacid, spicy and rich flavored. Sometimes with an orange blush. Resembles Yellow Transparent and Lodi but with better dessert quality for good tart fresh eating. Tasty in summer salads and also a fine cooking apple. A good choice for backyard growers because the fruit doesn't ripen all at once. You can pick them over a week or more. Keeps more than a month in refrigeration. The eleventh variety released by the well-known PRI disease-resistant apple breeding cooperative program at Perdue, Rutgers and Illinois Universities. The original seedling is a complex cross planted in 1975 at the Purdue Horticultural Research Farm in West Lafayette, IN. Has since been widely tested around the U.S. and across the world. Recommended for commercial orchards and hobbyists alike. Resistant to most apple diseases and scab immune; the name refers to its unblemished skin. Blooms mid-late season. Z4. **ME Grown**.

7252C on M111 rootstock

Red Astrachan Summer. Thought to be from Astrakhan on the Black Sea, prior to 1800. The standard Maine summer cooking apple for generations. Still found occasionally in old Maine dooryards. Juicy rich subacid white flesh frequently tinged with red makes a highly colored sauce. Especially loved for its distinctive flavor in pies. Medium-sized somewhat oblate fruit, splashed or sometimes solidly covered with dark red. An obvious russet patch surrounds the stem. Looks like a junior version of a Wolf River. Fruit ripens over a period of several weeks in midsummer, making it perfect for the home orchard and lousy for the commercial folks who want them all at once. After finding its way to Sweden, the apple traveled to England and finally to Massachusetts

7253A on standard rootstock

early. Z3. ME Grown.

ME Grown = grown in Maine at one of our small local nurseries.

in 1835. From there it quickly spread throughout New England and

beyond. Keeps for a few weeks with refrigeration. Very hardy. Blooms

Apple Maggot and plywood The late orchardist and rare apple collector Don Johnson made nifty apple maggot traps. We've gotten into doing so ourselves. In small orchards, the traps alone may be enough to reduce the AM pressure to a tolerable level. Here's how: Cut up plywood (3/8" or ") into 8x11" rectangles. Drill a hole along the top edge. Paint the plywood bright yellow with a 2–3" red spot (the apple) in the center. Coat with Stiky Stuff (an adhesive found on our website) and hang three in each tree in mid-June, positioning the traps

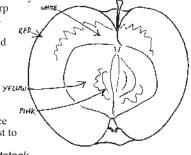
positioning the traps at about chest height.

Trim away any foliage that might stick to the trap. Check for trapped AM flies. Now and then, when they get too gnarly, scrape the traps and add

Remove traps around Labor Day.

Redfield Fall. Wolf River x Niedzwetzkyana. NY Stn, 1938. One of the best and largest of the red-fleshed apples. Although usually considered too tart for eating out of hand, the medium-large fruit with opaque solid rusty-red skin is absolutely great in pies, makes wonderful jelly and turns sauce and cider red. We love this apple. Gained fame in the hard-cider world thanks to the wonderful single-variety Redfield cider and Redfield blends made by the late Terry Maloney

of West County Cider. Very sharp and bitter in cidermakers' lingo. (SG 1.052) Flesh is two-toned: deep pink fading to white around the core. The flowers are also two-toned, deep pink, tipped with small white lightning bolts. And the bronze-red foliage adds further interest all season. Bears young, annually, and shows some insect resistance in our trials. One of the very first to bloom each year. Z3. ME Grown.



7254 A: on standard rootstock C: on M111 rootstock

Rhode Island Greening Fall-Winter. Green's Inn, near Newport, RI, about 1650. Also known as Greening. The classic New England cooking apple. Large roundish-conic-oblate green fruit often has a tannish blush. Light yellow-green flesh is crisp and tart. Great for pies, also excellent for fresh eating. The most well-known of the various Greenings, and the number one green apple for a few centuries before Granny Smith arrived from Down Under and stole the show. With its high-quality fruit and adaptability to a range of soil conditions, Rhode Island Greening established itself as one of the most important commercial varieties throughout the Northeast in the 19th c. Keeps well into winter. About as hardy as Baldwin. Old trees can still be found in central Maine. Not recommended for northernmost districts, but cooks everywhere else will love it. Blooms late season. Z4. ME Grown.

7255A on standard rootstock

Roxbury Russet Winter. Roxbury, MA, early 1600s. Said to be the first named American apple variety. One of the best late-winter dessert apples—it would be hard to live without a stash of them in our root cellar. Our favorite for winter sauce. Hard medium-large patchy green and russeted fruit not uniform in size, shape or color. Rich, spicy and juicy. Dried, it's nice and tart with a pleasant first sensation and a lingering good aftertaste. The aromatic juice has potential for cider, fresh or fermented. Medium to large vigorous spreading tree. One of the most popular commercial apples of the 19th century, largely because it can store until summer. Scab resistant. Blooms midseason. Z4. ME Grown.

7257 A: on standard rootstock C: on M111 rootstock

Pest Management in the Orchard

Lately, we've been trying to become more tolerant of imperfections in our gardens and orchards. We're leaving a little more for our bird and bug and mammal friends, and staying calmer when things go awry. Agriculture is full of challenges, but it doesn't need to be a battle.

But when should we intervene with pests and diseases? Check out our planting guide (pages 67-70), which highlights serious threats to the orchard. Often small measures can be taken early before disaster strikes. For example, if you don't check for apple borers, your young trees may die! A little scab on an apple is okay; when all the apples are covered in scab, you may want to get involved. If the young leaves of the peach tree are becoming puckered and curled, take the time to pick off and compost the infected leaves, and the tree will thank you.

Fedco's Organic Growers
Supply is standing by to help you with pest management when trouble

does arise. Lean also on your local cooperative extension agents who have a treasure trove of knowledge and often lots of bulletins with suggestions and advice about pest identification and mediation. Above all, try to relax and enjoy life with all its chaos.

Scout Late Fall. Fedco intro! Probably MN 447 (Frostbite) x open-pollinated. Palermo, ME, 2013. Exquisite dessert fruit ripens in late October and keeps until March. Won "Best Quality Eating" award at the 2022 Wild Apple Exhibition in western Mass. Large, roundish-oblate, deep red and russeted fruit. Flavor described by Matt Kaminsky in the Exhibition's catalog as "crisp fine-grained juicy and snappy...clean fruity finish with superior aromatics. A true knockout." Seedling selected on Super Chilly Farm by John Bunker and thenapprentice Emily Skrobis, who originally named the tree "Good Girl, Scout" to honor John's beloved collie. We're awaiting DNA profiling to confirm Scout's parentage. Blooms mid-late season. Likely hardy to Z3. ME Grown.

7258A on standard rootstock

NEW! Shizuka Fall-Winter. Golden Delicious x Indo. Kuroishi, Aomori, Japan, 1986. High-quality sweet dessert fruit is large to very large, conic and yellow with a pink blush. Although not as famous as Mutzu, another Japanese apple with the same parentage, Shizuka is one of those modern apples that could make it big one of these days in the grocery-store world. Gaining an enthusiastic following at the roadside stands of small commercial orchards. Worth a trial. Should keep most of the winter in your root cellar or controlled atmospheric vault. Triploid: will not pollinate other apples. Blooms midseason. Z4. ME Grown.

7259A on standard rootstock

NEW! Sops of Wine Mid-Late Summer. Unknown parentage. Southwest England, long ago. In Maine it's also known as Bell's Early and Sopsavine. "A very ancient English culinary and cider apple," according to Ephriam Goodale's Maine nursery description 200 years ago. Brought to Maine about 1800 and considered the leading summer apple for nearly a century thereafter. Flesh is juicy, soft, sweet, fine-grained, aromatic and heavily red stained. A fine summer dessert and cider apple. Carol Boynton of Jackson, NH, introduced it to us and said the medium-sized round deep purple fruit makes the best sauce. No need to remove the skins and no need for a ladder: just collect the ripe ones as they drop and make another batch of sauce, which is naturally pink. Tree is medium-large, vigorous, notably upright, precocious, very productive and usually annual bearing. Blooms midseason. Z4. ME Grown.

7260Å on standard rootstock

Sweet Sixteen Fall. MN 1630 (MN 447 [Frostbite] x Northern Spy) U Minn, 1979. The first bite into a Sweet Sixteen is always a surprise. Fine-textured crisp flesh contains an astounding unusually complex combination of sweet, nutty and spicy flavors with slight anise essence, sometimes described as cherry, vanilla or even bourbon. We always love Sweet Sixteen season. Truly excellent fresh eating, although it is too sweet for some palates. Also good for pies and sauce. Round-conic bronze-red medium-sized fruit, striped and washed with rose-red. Annual bearer if thinned. Very hardy moderate-sized vigorous vase-shaped tree grows upright with willowy branches that get loaded with fruit but do not break. Best grown in northern districts. Keeps till midwinter. Some resistance to scab. Blooms mid to late season. Z3. ME Grown.

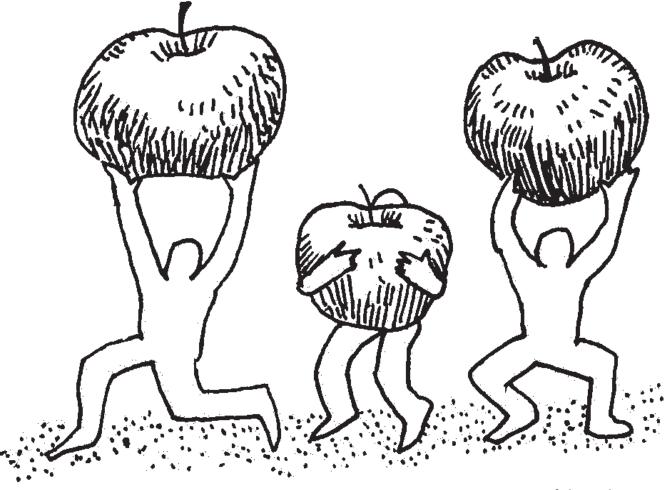
7265 A: on standard rootstock B: on B118 rootstock

Trailman Summer. Trail x Osman. Beaverlodge Research Farm, Alberta, Canada, 1973. In spite of its small size, this is an exceptionally delicious fruit for fresh eating. Spicy sweet crisp crunchy golden-yellow flesh. Visitors who try it in our orchard usually fall in love with it instantly. Some have called it the best summer apple they've ever tasted—some even call it their favorite apple of any season! Ripens around Aug. 20 in central Maine. Translucent yellow skin has a porcelain finish, white bloom and sometimes a brownish-red blush. Fruit the size and shape of an egg. Hangs on the tree for 2 weeks without softening. Precocious, annually productive, moderately vigorous spreading tree with somewhat drooping branches and distinctive greyish-beige twigs. Exceedingly hardy. Might be tasteless south of Zone 6. One of the first to bloom each year. Zone 3 or even 2. **ME Grown**.

7267B on B118 rootstock

Tumanga Fall-Winter. Cox's Orange Pippin x Schoner von Nordhausen. Kaiser Wilhelm Institut, Muncheberg, Germany, 1930. Crisp, juicy and sweet, this intense aromatic rich dessert and juice apple resembles its parent Cox's. Medium-sized round-to-oblate yellow fruit, half covered with a dusty mauve-red overcoat and a large ring of russet radiating out from the stem. Called Auralia in Germany, where it has been grown primarily for its excellent juice. Another of the fine varieties brought into the light for us by Mark Fulford of Teltane Farm in Monroe, ME, who also introduced us to Hudson's Golden Gem and Redfield. Not susceptible to scab. Stores until midwinter. Late midseason bloomer. Z5. **ME Grown**.

7268A on standard rootstock



APPLE TREES - \$36.00 EACH

Wickson Fall. Esopus Spitzenburg x Newtown Pippin. Albert Etter intro, Humboldt County, CA, 1944. One of the most intensely flavorful apples we list. Small roundish bright red fruit is crisp, juicy, tart, tangy and spicy. Highly recommended for dessert. Extremely high in both sugar and acid. Sugar level of the juice is around 25%. Becoming one of the most sought-after American cider apples. Makes perfect single-variety cider—the best there is! In September the tree looks like a mass of cherries. Bred and introduced by the generally unknown Albert Etter, one of America's most innovative and important fruit breeders of the 20th century. Keeps until January. Wickson bears young, heavily and mostly annually. Blooms midseason. Z4. **ME Grown**.

7271 A: on standard rootstock C: on M111 rootstock

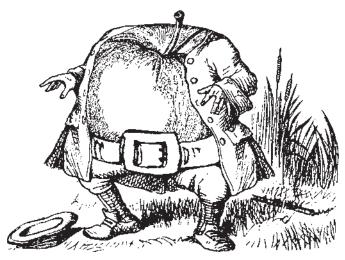
Williams Pride Summer. Coop 23 [PRI 2845-1=(PRI 1018-101 x NJ50)] PRI Coop, 1988. Probably the most popular summer apple among PRI's disease-resistant introductions. It's actually crisp, which is rare for a summer apple. Deep purple roundish-conic irregularly shaped fruit highlighted with areas of glowing rosy red and covered with a thin bloom. Light cream-colored flesh with red staining just under the skin. Firm, crisp and very juicy. Has a nice acidic blend of tart and sweet, reminiscent of Fameuse. Long ripening period means you don't have to eat them all at once. Vigorous annually bearing tree with some biennial tendency. Well shaped with strong right-angled branches that do not require careful training. Highly resistant to fireblight, cedar apple rust and sooty blotch; resistant to powdery mildew. Scab immune. Blooms early to midseason. Z4. ME Grown.

7272A on standard rootstock

Windham Russet Late Fall. Esopus Spitzenburg x unknown. Massachusetts before 1870. Excellent dessert apple for the connoisseur. The darkish brown russet skin has a distinctly bumpy rough texture, unlike any other russet we know. The stem area is sometimes lipped like Pewaukee. We brought it to the 2013 Franklin County CiderDays apple tasting and it won, beating out some really great apples. First brought to the attention of the Maine Pomological Society by DJ Briggs in 1885. ZA Gilbert, longtime president of the society, struggled to identify it—his best guess was Windham Russet. He wrote, "I have spent much time in search of a pointer to the identification of this variety. So choice a russet is worthy of attention." We agree. Said to be from Massachusetts although there is no Windham down there. Maybe it's the Windham in CT, NH, VT or ME. This apple is making a big comeback. Blooms midseason. Z4. ME Grown.

7273A on standard rootstock





Winekist Summer. Unknown parentage. Carl A. Hansen intro, Brookings, SD, 1949. Medium-sized fruit is wine red with patches and stripes of darker red and very small white dots. The very juicy coarse flesh is almost solid beet red, a deeper color than Redfield. Extremely tart tasty cranberry flavor. Makes a colorful addition to fresh cider or sauce. Good fresh eating for those who like it tart. For many years we assumed the apple was the creation of the Winthrop, ME, fruit explorer and collector Morris Towle, who had it in his collection. Dan Bussey's research has straightened that out. It must have come back east shortly after its introduction. Leaves are tomentose (soft and woolly) and have a dark reddish cast. Blossoms are light pink. Tree is a natural semi-dwarf. Blooms midseason. Z3. ME Grown.

7274B on B118 rootstock

Wolf River Fall. Alexander seedling. Near Wolf River, Wisconsin, 1875. Perhaps the most famous old-time apple in Maine, likely due to its catchy name and its extremely large—even huge—round-oblate fruit. These giant specimens always stand out in our apple displays at the Common Ground

Country Fair. Pale yellow-green skin mostly covered with pink, deep red and bright crimson with a vivid yellowish-greenish russet splash around the stem. Creamy-white coarse flesh is firm but tender. Aromatic subacid flavor is very good for cooking. Makes an excellent baked apple and a decent pie. Not much good for fresh eating, but particularly tasty when dried. Keeps until late fall. Large moderately vigorous productive spreading tree. Excellent scab resistance. Blooms mid to late season. Z3. ME Grown.

7276A on standard rootstock

Zabergau Reinette Winter. Württemberg, Germany, 1885. One of the most famous of all European heirlooms. Excellent fresh eating and good for cooking. Very large, sometimes huge, round-conic, sometimes lopsided, greenish-bronze russeted fruit with a red-orange blush. Similar to Pomme Grise in color, but much larger. Quite visible whitish russet spots cover the entire fruit. A very attractive apple. Firm white finegrained flesh with a rich nutty intense sweet-sharp flavor—fruity with hints of raspberry. Keeps well until midwinter and sweetens up in storage. Productive upright vigorous tree. Triploid: will not pollinate other varieties. Blooms midseason. Z4. ME Grown.

7279B on B118 rootstock

Zestar: Late Summer. State Fair x MN 1691. U Minn, 1999. Also called **Zestar**! Extremely hardy high-quality mid-late summer dessert apple. Medium-sized blocky round fruit covered with red stripes and blush. Juicy and crisp with a well-balanced acid-sweet flavor. As the late Michael Phillips, New Hampshire orchardist and author of *The Apple Grower*, said, "When you tree-ripen Zestar, it's fabulous." Northern Maine orchardist Steve Miller added, "That's an impressive apple. From the standpoint of appearance and quality, they're first rate." Keeps in cold storage up to 7 weeks. Tree has moderately vigorous upright form; excellent horizontal branching habit makes it easy to train and prune. Precocious and annual-bearing. Blooms early season. Z3. ME Grown.

7280 A: on standard rootstock C: on M111 rootstock B: on B118 rootstock E: on Bud 9 rootstock

APPLE COLLECTIONS

Overwhelmed by choices? Let us choose for you, and you'll save 10% on cost per tree. Collections are not customizable.

Heritage Apple Collection A bundle of 5 or 10 trees to begin your own heritage apple orchard. Each tree will be a different heirloom traditionally grown in northern New England. Rootstocks will be semi-dwarf and standard. Trees are individually labeled. All hardy to Z4

7793A Heritage Apple Collection, bundle of 5, \$162.00 7793B Heritage Apple Collection, bundle of 10, \$324.00

Cider Apple Collection A bundle of 5 or 10 trees to begin your cider orchard. Each tree will be a different cider variety, with an assortment of bittersharp and bittersweet apples. Rootstocks will be either semidwarf or standard. Trees are individually labeled.

All hardy to Z4. 7794A Cider Apple Collection, bundle of 5, \$162.00 7794B Cider Apple Collection, bundle of 10, \$324.00



Maine Heritage Orchard Stewardship Apple The Maine Organic Farmers and Gardeners Association (MOFGA) established the Maine Heritage Orchard (MHO) in a renovated gravel pit in Unity, with the first trees planted on Earth Day 2014. MHO is home to hundreds of heirloom varieties of apples that were known to be grown in Maine dating back as far as 1630, as well as a growing collection of noteworthy, provisionally named seedling varieties grafted from impressive ancient trees found across the state. Nearly 400 apple trees have been planted so far.

The orchard's trees are managed with innovative organic practices and planted on a terraced hillside alongside native flowers and shrubs to create a polyculture orchard unlike any other. MHO is an educational resource, open to the public during various workshops, tours and volunteer days throughout the year.

You can join in this effort by becoming an Apple Steward. By purchasing a Heritage Orchard Stewardship Apple, you become the proud keeper of one of the varieties growing at MHO. In the event that the orchard's tree dies, you'll have a backup so we can collect scionwood for grafting another.

We'll send you a historic apple tree with a description and a form to fill out. After planting your tree, you return the form with the tree's location to MOFGA. MOFGA will contact you from time to time

\$30 from the sale of each tree goes to support the Maine Heritage Orchard project. All trees best grown from Z4-6. ME Grown. (3-6' bare-root trees)

7282A Stewardship Apple,



at the Maine Heritage Orchard, and we were gladdened at the announcement that a new orchard endowment has been named to honor Fedco Trees founder John Bunker, who was instrumental in MHO's creation. Speeches were made, songs sung, poetry read (see below), and we all toasted our friend before

wandering among the apple blossoms. The endowment will protect the orchard for decades to come.

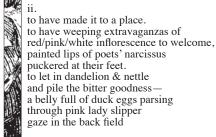
spring is not spring until every apple has blossomed

to learn an orchard as living sculpture park. reclamation/remediation/preservation fistfuls of elder swaying dark, pearly everlasting sweat shine glisten over the heart

- DUTTHONORUS SALLANDON SA

a crate of winekist ripe was unknown beginnings the dense red pericarp of love murmuring

"be here. vou could be here."



there is no being who can greet one into newness as an apple does.

take my bough when your heart is low; i will hold you

lean against my trunk when you are homesick; i will press softly on what aches

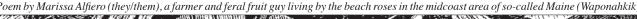
carry winter's brush from my base and i will carry you in my canopy

a perfect patch of sunlight over the cement cover of the well, just right for a perch, while redbud hangs over the garden, whispering half-formed dramas

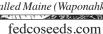
when bulbs & roots awake comes time for the clearing of the hearthang out floral patterns to air alongside the valves gone stodgy with unuttered words. the april rains are salt tears that charge blackout months of dormancy at an end, we have shorn away the parts of self that fester, that shade our spheres of growth

let the light inthe light, yes, even for all the harm of the waxing world, the blight/the beetle/the curculio we stare down the long game, the known trials of the years. knowing that to sow seed/graft scion/set fruitwith every possible risk of totalityis the necessary to an unthinkable alternative: no love no apples.

let our hearts be full dusted in kaolin clay be steeped in horsetail tea and donkey dung be shouting through every daily hurti am fleshy receptacle and fruit alike i am every possible sweetness i am every flowering flavor this world could know.







CIDER APPLE TREES - \$36.00 EACH

Cider Apples

Each year we offer a different assortment of the best European and American cider varieties, including new wild apple introductions from local fruit explorers and cidermakers. Many of these are NOT for fresh eating. They do however possess qualities that make them very desirable for fermented cider production.

Bramtot Fall. Bittersweet cider apple. Thought to be a seedling of the old variety Martin Fessar. M. Legrand intro, Yvetot, France, 1872. Brought to England by the Woolhope Naturalists Field Club in 1884. Not for fresh eating but an excellent bittersweet for blending in hard cider. Juicy firm cream-colored quite bitter very astringent flesh has a very high sugar content. (SG 1.069, acidity 0.23%, tannin 0.35%) Steve Wood of Farnum Hill Ciders in Lebanon, NH, called it "a lovely little apple with nice juice, interesting, aggressively tannic." Small conic green partially russeted fruit with a dull orange blush. Not very well known and rarely included in the literature. Blooms mid-to-late season. Z4. ME Grown.

7283C on M111 rootstock

Cellar Hole Bitter Fall. Full bittersweet cider apple.

Unknown parentage. Gene Cartwright, Whaleback Cider intro, 2015. Discovered near an old overgrown cellar hole down the road from Whaleback's orchard and cidery in Lincolnville, ME. Very bitter yellow fruit develops spots of pink and orange when fully ripe in mid-October. Gene says, "Intense tannins, not terribly juicy but can pack some sugars." He measured a whopping 21 Brix in some highly colored specimens from the sunny side of the tree. Gene has artfully pruned the wild mother tree, but he still has to compete with the porcupines for a share of the large annual crop. Another one of the local discoveries on trial at MOFGA's low-intervention no-spray South

Orchard, where hopefully the quill pigs will stay away. Z4. ME Grown.

7284C on M111 rootstock

Cranberry Fall. Bittersharp cider apple. Dolgo × Redflesh. Bred by R.L. Wodarz of Wyndmere, ND, 1953. Long, conic and often pointy dark red crabapples look like enlarged cranberries and taste a bit like them, too. Mostly tart and slightly sweet with a bitter finish. One of the varieties used in Michigan State University's red-flesh breeding program. A cider with a 1:4 blend of Cranberry and common commercial orchard varieties Red Delicious, Empire and Idared won the gold medal at the 2016 Great Lakes International Cider and Perry Competition. Blooms midseason. Z4. ME Grown.

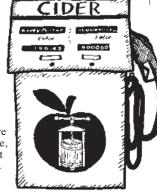
7285C on M111 rootstock

Dabinett Late Fall. Medium-bittersweet cider apple. Probably a seedling of Chisel Jersey. Middle Lambrook, Somerset, England. One of the most popular cider varieties in Somerset today and one of the mainstays of Poverty Lane Cider Orchards in NH. At a MOFGA workshop, Steve Wood of Poverty Lane and Farnum Hill Ciders said, "If you're going to plant one bittersweet, plant this one." Sugar content fair and fermentation moderate. High-quality well-balanced low-acid cider with a soft-tasting tannin. (SG 1.057, acidity 0.18%, tannin 0.29%) Medium-sized roundish fruit covered with brownish brick-red stripes and blush. Picked last week of October and usually blended with other late varieties. Crops annually. Grower-friendly tree with flat lateral branches may require help in developing a strong central leader. Not pollen compatible with Chisel Jersey. May be susceptible to fireblight in some locations. Midseason bloom. Z4.

7286D on G890 rootstock

Fuel Service Fall. **Bittersweet** cider apple. *Fedco intro!* Unknown parentage. Cammy Watts and John Bunker intro, Palermo, ME, 2015. Medium juicy, medium crisp and high in tannins. Begins to oxidize moments after cutting or grinding. (SG 1.062) Small 2" yellow fruit sometimes with a faint blush. Discovered on a fruit exploring mission in Hancock County, ME, in the fall of 2015. The small roadside wild seedling tree was loaded so we had to stop. Boy were we happy. You will be, too. Recommended for trial—we're liking it so far. Uncertain bloom time. Z4. ME Grown.

7287C on M111 rootstock



Harrison Mid-Late Fall. Vintage sharp cider apple. Parentage unknown. South Orange, Essex County, NJ, as early as 1712. One of the most renowned American cider apples, dating from the early days of domestic cidermaking. Harrison cider was famous and considered to be better than champagne. Medium-small oval yellow-skinned fruit. Rich firm dry yellow flesh. According to William Coxe in 1817, it makes a "high coloured, rich, and sweet cider of great strength, commanding a high price in New-York, frequently ten dollars and upwards per barrell. Vigorous productive tree. A Harrison revival is underway in several locations on the East Coast. Performing well in our central Maine trials. Appears to be plenty hardy. Blooms mid to late season. Z4. ME Grown.

7289C on M111 rootstock

Hewe's Virginia Crab Fall. Vintage sharp cider apple. Probably a seedling of the native M. angustifolia, the Southern Crab. Introduced about 1700 in Virginia. One of the most prized of all American cider apples. One of the rare varieties recommended for single varietal cider. In his 1817 A View of the Cultivation of Fruit Trees, William Coxe devoted an entire chapter to making cider with Hewe's. The red-skinned white-spotted fruit is small, round, juicy, tough, astringent and acidic. According to AJ Downing in 1848, Hewe's "makes a very high-flavored dry cider, which, by connoisseurs, is thought unsurpassed in flavor by any other, and retains its soundness a long time." Incredibly vigorous, productive and healthy in our trials. Quite hardy despite its name. Long ago used as a rootstock even as far north as Maine. Prolific large white blooms persist for a long time midseason, making it a great pollinator for other varieties. Z4

7291 A: on standard rootstock C: on M111 rootstock **Hyslop Crab** Early Fall. **Mild bittersharp** cider apple. See page 18 for

Kingston Black Fall. Vintage bittersharp cider apple. Parentage unknown. Somerset, England, early 19th c. High in tannin and acidity. (SG 1.061, acidity 0.58%, tannin 0.19%) Produces full-bodied vintage cider with a nice blend of acid, tannins and sugar. One of the noteworthy varieties that makes a high-quality single variety hard cider; also good in a blend. We became fans of Farnum Hill's tasty Kingston Black varietal. Now we make it ourselves. Also makes superb fresh cider. Even the fresh juice is a deep rich dark color. Medium-sized conical beautiful rich red fruit is mottled with red russet and deeper shades of maroon. Fairly decent fresh eating. The tree is a reliable bearer, but is gangly and needs careful pruning. Blooms midseason. Z4. ME Grown.

7292C on M111 rootstock

John and Cammy's Simple Hard Cider

Apple juice wants to ferment. Although there are many books, websites and conferences devoted to hard cider, the process is quite simple.

Our best ciders come from a mix of different apples. We combine small and somewhat bitter wild seedling apples with sweet low-acid apples like Sops of Wine, and bittersweets like Dabinett, Yarlington Mill, or other cider varieties. That said, just use what you have!

A bushel of apples will yield about 3.5 gallons of juice. You can buy,

borrow or build a cider press. You could also buy fresh cider from a local orchard in the fall.

Pour juice into a clean container, such as a glass gallon jug, a 5-gallon carboy, or a 50-gallon wooden whiskey or wine barrel. We clean our fermentation vessel with potassium metabisulfite, available at beer/wine supply stores.

Some cidermakers add yeast. Others add raisins, brown sugar, various fruits or even a piece of steak. Our cider is just juice. The natural yeasts on the farm are enough to make great

Seal the vessel with an airlock. When the airlock stops bubbling, the fermentation is done. This takes several months in the cool basement

where we ferment our cider.

Time to drink the cider or bottle it. We like to bottle ours and wait another few months because it keeps getting better. Sometimes we add ³/4 tsp sugar to each bottle to make the cider fizzy. Twist-top wine bottles or flip-top bottles are easy because you don't need to purchase bottle caps or corks. Enjoy!

Major Early Fall. **Full bittersweet** cider apple. Probably originated in central Somerset County, England, before 1900. Sweet, soft, woolly, juicy and bitter. (SG 1.054, acidity 0.18%, tannin 0.41%) Recommended for combining with other early cider varieties such as Ashton Bitter, Ellis Bitter and Nehou. Medium-sized pinkish-rosy-red roundish-oblate-conic fruit, sometimes ribbed and usually featuring a small yellowish russet splash around the stem. One of the English varieties now becoming popular in the U.S. Vigorous tree with a good central leader and a spreading branching habit. Similar to other Jersey-type cider varieties. Scab resistant. Late blooming. Z4. ME Grown.

7293C on M111 rootstock

Otterson Fall. Bittersharp cider apple. Fameuse x Niedzwetzkyana. Entered into USDA apple germplasm repository in 1992. Rediscovered and cultivated at Michigan State U by plant geneticist Dr. Steve van Nocker and botanist Chris Gottschalk, who have done extensive research and trials on red-fleshed apple varieties and started the Michigan PureRed breeding program. Otterson was selected as one of the best from more than a hundred varieties for its size, vigor and disease resistance, as well as its deep red juice, high in anthocyanins and antioxidants. Mediumsized round fruit are DARK red inside and out. Cidermakers have pressed and fermented Otterson into rosé cider, winning honors at the Great Lakes International Cider and Perry Competition. On trial around the U.S. and growing well in our local Maine orchards. Highly ornamental purple-red foliage and pink flowers. Early to midseason bloomer. Z4.

7295C on M111 rootstock

Redfield Fall. **Bittersharp** cider apple. Description on page 12.

Wickson Fall. Vintage sharp cider apple. Description on p. 14.

Shavel Sharp Fall. Bittersharp cider apple. Unknown parentage. Yarmouth, ME, c. 1960. In our ongoing search for local bitter cider apples, this is a current favorite. Introduced to us by cidermaker Steve Barr who declared it the most bitter apple he'd ever tasted. It's right up there. Small (11/2-2") red-striped fruit is very juicy, highly astringent and very difficult to eat. We dare you to try one and keep a straight face! The original tree may be a seedling or possibly a rootstock with a failed graft. Our name for it is a combination of the current owners' name and the farm's traditional name. Scionwood made available through the generosity of the Shavel family at the old Sharp Farm. Blooms mid-late season. Z4. ME Grown. BACK after a long absence!

7299C on M111 rootstock



Vilberie Late Fall. Full bittersweet cider apple. Probably originated in Brittany, France. Brought to England in the late 1800s by HP Bulmer. Medium-soft flesh is somewhat spongy with low acidity and a nice astringency. (SG 1.044; acidity 0.27%; tannin 0.41%; Brix 11.5) If you've been looking for late-ripening bittersweets as we have been, try this one. We're excited about it so far. Small-medium fruit is roundish and obscurely ribbed. Resembles Stark and Baldwin, about half covered with a brownish-red blush, with a few short darker red stripes. By mid-October the green has still not begun to turn yellow. The stem is quite long and thin. Our scionwood came from the USDA Ag Res Stn, Geneva, NY. Blooms late. Z4. ME Grown.

7301C on M111 rootstock

Yarlington Mill Fall. Medium-bittersweet cider apple. Yarlington, near North Cadbury, Somerset, England, 1898. Rich brown low-acid juice, mildly aromatic, fruity and not aggressively tannic. Above-average sugar content. (SG 1.053-1.075, acidity 0.22%, tannin 0.32%) Slow to medium fermentation. Medium-sized yellow distinctly conic fruit with a pinkish blush and overspreading darker red stripes. Considered an all-round excellent cider variety: reliable, productive and adaptable to varying conditions. We've heard reports of it thriving in Zone 3. Steve Wood's other favorite bittersweet (see Dabinett). Highly recommended for home and commercial cider plantings. You may need to head back the leader in early years to encourage strong laterals. Midseason bloomer. Susceptible to fireblight in some locations. Z3/4.

7303D on G890 rootstock

It's All in the Mix!

'From the great diversity of soil and climate in the United States of America, and the almost endless variety of its apples, it followed that much diversity of taste and flavor will be necessarily found in the cider that is made from them.

- Colin MacKenzie, 1829

For the best cider, plant several varieties. That's because when it comes to cider, it's all in the mix. Unlike beer, cider usually has only one ingredient: apples. They provide everything: acidity, sugar, tannin and flavor.

We classify the cider varieties into four categories

• Sharp (low in tannins, high in acid)

• Sweet (high in sugar, little or no tannin, low acid)

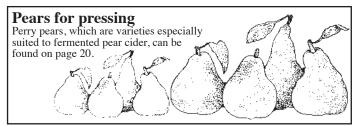
• Bittersharp (high in tannins and high acid) • Bittersweet (high tannins and sugar, low acid)

Tannin denotes naturally occurring compounds whose bitter astringency gives rounded full flavor body and golden color. Most cider is best blended. We recommend

you plant some sharp apples for acidity, some sweet apples for sugar and some bitter apples for the tannin. However, vintage refers to varieties with perfect qualities for single-variety cider. For those who are

really serious about it, we include where we can the percent malic acid (acidity), percent tannic acid (tannins) and specific gravity, or SG (sugars) for the individual varieties. Brix is another measure of sugar content.





CRABAPPLE TREES - \$36.00 EACH

Flowering & Culinary Crabapples Malus spp.

A crabapple is any apple with fruit smaller than 2" in diameter. All crabs bear edible fruit, some more favorable for culinary use than others. Some fruits are persistent, hanging on the branch through winter and providing forage for robins, jays and waxwings in the early spring. The flowers, tree form and even the shape of the leaves can vary subtly or profoundly. Most are magnificent in bloom and ornamental year round, especially in winter when the leaves drop and the trees show off their interesting forms. (21/2-6' trees)

Brandywine 20x20' *M. ioensis* 'Plena' Klehm's No. 8 (*M. x purpurea* Lemoinei x *M.* Klehm's Improved) Incredibly beautiful fragrant flowers followed by unbelievably bitter fruit. Deep pink buds open to fragrant 1" wide pink double rose-like blossoms. Put an arrangement of these flowers in a vase, and people will swear they are roses. Cidermakers love the unattractive 1–2" maroon-blushed green fruit that drops in the fall and makes a mess. Very high in tannin. In *Cider Digest* some years ago, one grower wrote, "You ought to try planting a crab called 'Brandywine'. WOW!!! what a real mouth-killer as far as tannin goes... Couldn't tell you the acidity because my tongue had gone dead." Along with Dolgo, our top-selling crab year after year. Loosely rounded tree blooms most years. Z4. ME Grown.

7305 A: on standard rootstock C: on M111 rootstock

Dolgo 25x30' From seed collected by NE Hansen of *M. x robusta* in 1897 at the Imperial Botanical Gardens, St. Petersburg, Russia. (*Dolgo* means 'long' in Russian.) Introduced in the U.S. in 1917. The classic **culinary** crab still found in old Maine dooryards. Apricot-pink buds, large fragrant 2" pure white single flowers bloom early. Beautiful purple ed 1¹/2" teardrop-shaped fruit makes flavorful clear ruby-red jelly. In recent years the aromatic sweet very acidic fruit has found favor with cidermakers. Great for canning, pickling and delicious sauce. Vigorous large blocky upright spreading tree consistently yields abundant summer crops. Very hardy. Z2. **ME Grown**.

7219 A: on standard rootstock C: on M111 rootstock

Hatchet Mountain 15-20' x 20' *Fedco intro!* Chance seedling discovered and named by John Bunker in Hope, ME, 2015. Magnificent large red flowers have almost no blue in the color, making it unusual for a red-flowering crab. The 1" fruit is a very pretty red-orange and has good **culinary** potential for filling the jelly jars quickly. Most fruits are solid colored but some are yellow-orange on one side with a beautiful deeper red on the blush side and a nice purple matte bloom. Young foliage emerges purple-red and fades to bronzy-maroon, finally becoming green with prominent red venation that gives the tree a summer-long multicolored effect. The cherry-red veins light up on a sunny day; when it's overcast, the whole tree has a silvery sheen. Stunning all the time. Z3/4. **ME Grown**.

7307A on standard rootstock

NEW! **Hung Hai Tung** From seed collected by PH Dorsett near the Buddhist temple of Fa Hua Ssu in the Yinshan Pagoda Forest near Beijing; Cheyenne Hort Field Stn grew out the seed in 1933. Rare. Large single 2" white flowers; ¹/₂ to ³/₄ red fruits in fall. Extremely rugged—a very old specimen has survived more than 70 years of harsh weather at the High Plains Arboretum in Wyoming. Our scionwood comes from an old tree in the Lyle Littlefield Garden in Orono, ME, thanks

the right Plains Arboretum in wyoming. Our scionwood comes frought tree in the Lyle Littlefield Garden in Orono, ME, thanks to caretaker Brad Libby. We're glad to offer this rare crab for future generations to enjoy. Z4. ME Grown.

7308C on M111 rootstock

Growing Crabapples

Soil: Adaptable, but prefers well-drained fertile soil.

Sun: Full sun, but will tolerate less if you pamper it.

Pollination:

Requires a second variety for pollination. Any

apple or crabapple blooming within a quarter mile will probably do.

Spacing: 15–20' apart.

Pruning: Crabs do not require formal pruning. Prune broken branches and suckers; moderately shape as you wish, but otherwise allow the tree to assume its natural form.

Planting: Same as other apples. See pages 67-70 for instructions on soil prep, planting and pest control.

NEW! **Hyslop** 25x30' Unknown origin, 18th or early 19th c., likely named by the Hyslop family of Boston, MA. Single white blossoms. Heavy clusters of $1^{1}/2^{n}$ roundish fruits, brilliant dark red with a dense

blue bloom, ripen in later summer or early fall. This culinary crab is one of the best for jelly and pickles. Fine-grained yellow flesh, sometimes with a red tinge just under the skin, is juicy but turns dry, mealy and astringent—just what the cidermaker ordered. It was already an heirloom by the time Beach described it in 1905 as "one of the best known and most widely cultivated of the crabappl

As culinary crabs fell out of general favor,
Hyslop receded into history. Fortunately some
orchards kept them going, like Lakeside Orchard in
Manchester, ME, which has a long row of Hyslop trees
Of historic value for us Mainers as the pollen parent of
the fine Castle Hill apple Dudley Winter. Vigorous
upright open spreading rounded tree. Susceptible
to fireblight. Z3. ME Grown.

7309C on M111 rootstock

NEW! Lyle Littlefield 20x50' M. baccata (Siberian crab). Probably originated in Orono, ME. Single 11/2" pure white flowers absolutely devour the branches in a magnificent spring show, followed by abundant 1/2" rosy-red fruit in clusters. John Bunker first came across this large unlabeled, unnamed seedling at Lyle Littlefield Garden in the 1990s. The specimen was at the time more than 20' tall and 50' feet across. The beautiful bloom and the impressive convoluted form inspired him to propagate the tree. Brad Libby of the Garden agreed with John that "Lyle Littlefield" would be an appropriate name. Littlefield was a U Maine horticulture professor who started the cold-hardy trial garden in the early 1960s as a place of education and beauty for the public to enjoy. M. baccata was first introduced in North America in the 18th c. and grown for its ornamental and culinary value. Huge old trees can still be found in Maine. The species has regained attention for its extreme hardiness and is now being used in breeding programs. It will typically fruit even if temps drop well below freezing during bloom. Z3. ME Grown.

7310A on standard rootstock

Polar Bear 20x20' Fedco exclusive! Henry Ross intro, Gardenview Horticultural Park, Strongsville, OH. Very large "polar bear"-sized double white flowers look like little white roses before they fully open. Medium-sized tree with upright rounded form. After first reading about Henry Ross in John Fiala's classic crabapple text, we wrote to Mr. Ross to ask him about offering some of his selections. Since then we have had the privilege of listing several, including this one. Seems to be rare in the trade as we haven't found it anywhere else. Persistent fruit. Z3/4. ME Grown. BACK after a long absence!

7314B on B118 rootstock

Don't worry. Be crabby!

Crabapples can be habit forming. If your interest in them borders on obsession, we fully support you. In fact, we encourage you to join some of our staff and growers in seeing how far you can go in collecting them.

Why are crabs worth collecting? For one, they are gorgeous in the spring. Nothing is lovelier. They are hardy and often very disease resistant compared to other fruit trees. But most of all, they produce fruits small enough for birds to eat. There is an old saying that the

snow flies three times on the robin's tail before spring. How true. Every spring after the robins return to the North to hunt for worms in the thawing soil, the ground gets buried in snow again. That's when we see all kinds of birds flocking to our crab trees to gobble up last year's mushy crop.

This year we are feeding our crab obsession by offering a few rare crabs grafted from scionwood we collected at the Lyle Littlefield Ornamentals Trial Garden & Research Center on the campus of U Maine

in Orono. We hadn't visited in many years and were delighted when garden manager Brad Libby welcomed us back with a fabulous tour. He and his team curate a collection of more than 2,500 cold-hardy ornamental plants.

Some of the parent trees of these rare crabs are old and struggling, and through our grafting we're returning younger versions back to the garden to preserve them. You'll find Lyle Littlefield crab on this page, and a very limited supply of few others from the collection will be available on our website.

EUROPEAN PEAR TREES - \$38.00 EACH

European Pears
Pyrus communis

Native to temperate Europe and Asia, pears can grow up to 100' tall in the wild. Many pear varieties are hardy in New England but tend to take longer to come into bearing than apples and might not bear every year. Farther south, pears tend to bear annually. Pick fruit when green and ripen it on the shelf. Or, for optimal eating, try this method, from Ed Fackler of Rocky Mountain Orchard: "...when fruits exhibit slight color changes, begin to test pressure (using your thumb) near the stem. When there is a slight 'give,' pick all the fruit, store at or near 35° for 7 or more days. Then remove them as needed, allow them to sit at room temps for 2-4 days which allows them to ripen to

peak flavor. Pears are on OHxF97 and will reach 25' or taller at maturity. (21/2-5' trees)

Bartlett Late Summer. Seedling found in Aldermaston, England. Introduced to the U.S. in the late 1700s. Also known as **Williams' Bon** Chrétien. The most widely planted and well known of all pears in U.S. commercial production. Adaptable to many climates and soils. Large classic pear-shaped greenish-yellow fruit; very good quality. Full reliable annual crops. Might be iffy north of Bangor. Large vigorous easy-to-grow long-lived tree bears young. Susceptible to fireblight. Good pollinator for Asian pears. Z4. ME Grown. #7331A

Bosc Fall. Seedling introduced by Van Mons, Lourain, Belgium, 1807. Also called **Beurre Bosc**. Long-necked fruit is dark rich yellow covered with cinnamon-brown russet. Distinctive sweet rich spicy buttery flavor. Melting juicy tender white flesh has smooth texture and a pleasing aroma. Somewhat gritty around the core. Large vigorous upright spreading tree bears huge crops annually. Good pollinator for other varieties. A longtime favorite throughout central Maine. Z4. #7332A

Cabot Vermont Fall. A superior old dessert pear, c. 1850, discovered in Cabot, VT, a few miles west of the New Hampshire border and about as far north as Bangor. Medium-large pear-shaped yellow-green fruit has a slight reddish blush. Yellowish sweet flesh is coarse grained, extremely juicy, with no grit cells. Not only is it a delicious dessert fruit, it is also remarkable for its very rare "double" flowers. Highly ornamental! Introduced to us many years ago by Armando Bona of Passumpsic, VT. Not to be confused with the old Massachusetts pear named Cabot. Annual and self-pollinating. Very hardy. Z4 or possibly even Z3. ME Grown. #7333A

Dana Hovey Winter. Thought to be a seedling of Seckel. Roxbury, MA, about 1854. Introduced by 19th-c. fruit enthusiast Francis Dana who dubbed it "Dana's Hovey" in honor of CM Hovey, Boston nurseryman and author of *The Fruits of America*. Sometimes called **Winter Seckel** because of its similarity to Seckel. Small squat rich golden-yellow russeted fruit. Intensely sweet highly aromatic tender storage pear has excellent flavor; possibly the best eating of all winter pears. Keeps extremely well. Harvest in October and store in a cool dry spot. Still great eating in December-sometimes even as late as February. Hardy vigorous moderately productive spreading tree adapts to a variety of soils. No scab and relatively few bugs. Z4. ME Grown. #7334A

Devoe Late Summer. Possibly a seedling of Clapp Favorite Marlboro, NY, 1947. Fine-grained buttery melting white flesh is juicy and sweet with notes of honey and vanilla. Very attractive large elongated pyriform fruit with a bright spotted reddish-pink blush—like a stretched out Bosc with the coloring of Clapp. The USDA's pear germplasm repository describes it as "pretty enough to pose for a still life. Best for fresh eating, does not keep well. Eat when it gets soft right around the stem.

Z4. ME Grown. #**7335A**

Giffard Summer. Chance seedling discovered by Also called **Beurre Giffard**. Introduced to the U.S. about 1850. Very high-quality dessert pear is one of the first to ripen in our orchard, in midsummer about a week before Staceyville. Soft melting slightly coarse flesh is very similar to Bartlett. Delicious. Medium-sized acute-pyriform fruit has tender greenish-yellow skin with a dotted red blush and conspicuous greenish or russet dots. Small core. Pick them a little green and ripen them inside, or pick them daily just as they ripen. Makes delicious pear-cardamon jam. The tree is medium with no detectable grit. Medium-sized fruit is yellow-green with a red blush. Ripens a few weeks before its parent Bartlett. Uncommonly

ME Grown = grown in

Maine at one of our

Kaspar's Winter Late Fall-Winter. Frankendorf, Germany. Very good tough-skinned storage pear

Nicolas Giffard, Foussieres, France, 1825

sized, vigorous, spreading and productive

Extremely hardy. Z3. ME Grown. #7336A

Harrow Delight Early Summer. Bartlett x Purdue 80-51 (Early Sweet x Old

Home). HA Quamme, Harrow, Ontario,

1982. Sweet juicy white flesh is smooth

productive: you may need to thin fruit to

prevent snapping limbs. Bred for hardiness and strong resistance to fireblight. Z4.

will keep until April in the root cellar. Greenish-mottled medium-small pear-shaped fruit with some russet splashes or dots. Coarse flesh with a floral vanilla-cake flavor. Very hard off the tree; don't begin to eat them until a month after picking. Years ago this nameless winter pear found its way from the roadside near Frankendorf to Unity, ME. The name came later, courtesy of grower Howard Wulf who calls it "the latest-keeping pear I've ever seen." Sturdy adaptable hardy precocious tree. Recommended for those who want pears into January. 4. ME Grown. #**7338A**

ME Grown. #7337A

Luscious Early Fall. SD E31 x Ewart. SD St U, 1967. Produces annual crops of delicious medium-sized classic pear-shaped fruit. The soft fine extra-juicy off-white flesh is sweet and flavorful with almost no grit cells. Thin yellowish skin is covered with small tan dots. Bears so heavily it can use support. Anecdotal evidence suggests that it may crop best when grown near Bartlett or one of the Asian pears. Will not pollinate other pears. Fireblight resistant. Z3. ME Grown. #7339A



Pear leaf blister mites can sometimes be a problem for pear growers in the U.S. The tiny mites overwinter under the bud scales and become active in spring. They are too small to see with the naked eye, but you'll know you have them if pear foliage looks like it has red blisters that eventually turn black. We recommend a dormant oil spray in spring just before the pears leaf out. You can also do a sulfur spray in the fall. (Apply appropriately, with protection. Read labels.) As a precaution, we spray Fedco pear trees with Organic JMS Stylet-Oil in the spring before shipping. You'll find organic treatments for fruit trees in our Seeds & Supplies catalog, or on our website. We have noticed that trees often outgrow the infection even if you do nothing

EUROPEAN AND PERRY PEAR TREES - \$38.00 EACH

more European Pears

Magness Late Summer, US 3866-E [Giant Seckel (SP149490) x Doyenne du Comice] USDA, 1960. Rich, melting, buttery, juicy, sugary, tender, highly perfumed and aromatic with almost no grit cells. Have a napkin on hand when you bite in because the juice will run down your chin. Renowned plant breeder Elwyn Meader rated Magness as the standard by which to judge other pears in taste and quality. Some call it the best-flavored pear ever. Medium-sized fruit is greenish-yellow with a light dull-bronze russeting, sometimes a crimson blush, and a short pyriform shape. Fruit set can be inconsistent, though we heard of one grower who got excellent results by mashing up flowers from other pear varieties and spraying them on his Magness when it was in full bloom. Keeps more than two months with refrigeration. Vigorous spreading tree. Will not pollinate other varieties. Some insect resistance and excellent fire blight resistance. Z4. ME Grown. #7340A

Patten Late Summer. Orel 15 x Anjou. CG Patten intro, IA St U, 1922. Very good fresh eating with sweet "high flavor." Oblong and greenish-yellow with a red blush. Vaguely reminiscent of Bosc in size and shape. Fine-grained soft flesh has minimal grit cells. Good canning pear. Tree is extremely adaptable, growing all over the Northeast. Long willowy very flexible branches won't break even under the weight of its heavy crops. Fared incredibly well during the cold "test winter" several years ago

when hundreds of northern Maine pear trees died to the roots. Extremely hardy and highly recommended for coldest districts. A good pollinator for other varieties. Scab resistant. Z3. ME Grown. #7341A

> Seckel Late Summer. Seedling found near Philadelphia, PA, early 1800s. Sometimes called Sugar Pear. Often considered the best-flavored of all pears; even the skin is delicious. Small squat fruit is russeted yellowish-brown often with a deep red blush. Juicy, spicy, distinctive and aromatic. Eat ripe off the tree, or pick firm and ripen later. We use Seckels to make our roasted pear sauce. It's wonderful. Very productive annual-bearing large tree, easy to grow. The most reliably bearing pear we have in our home orchard. Scab and fireblight resistant. Z4. ME Grown. #7342A

NEW! Summer Blood Birne Midsummer. An unusual ancient German red-fleshed pear. Mottled red flesh is mild and sweet with a subtle

cinnamon flavor. Of the handful of commonly available "blood" pears, this is the largest, though still on the small side as far as pears go. Squat round pear-shaped fruit is yellow, often with a pink blush. Ripens in early August and is good for fresh eating and drying. Beautiful sliced atop an arugula, walnut and goat cheese salad. A fun addition to any orchard. Resistant to scab. Z4. ME Grown. #7343A

Summercrisp Midsummer. MN N33201 (Gaspard No. 5) Brought to the MN Hort Res Stn by John Gaspard in 1933, likely discovered as a wild seedling. U Minn, 1986. Large fat very sweet dessert and canning pear with green skin and a red blush. Ripens in August in Maine. Eat them fresh, can them in quarters, and juice the rest. Precocious annually bearing tree, medium-sized with typically conic habit. Considered the hardiest variety in the Minnesota collection. Free from

fireblight. One of the most popular pears we offer. Z3. ME Grown. #7344A

Winter Nelis Winter. Seedling pear from Belgium, early 19th c. Brought to the U.S. from England in 1823. Storage pear with fantastic flavor—easily lasts in the cellar through February. Juicy, fine textured, flavorful, sweet and aromatic. Medium-sized squat pyriform fruits have a cinnamon-colored russet that almost fully covers the thick skin, which turns yellow when fully ripe. So shiny it glows! Fruit can remain on the high-yielding tree through leaf fall in late autumn. Highly regarded as a late-season storage pear by Victorian gardeners, and achieving popularity in the mid-20th c. as an export crop from warmer markets in California, Australia and New Zealand. Z4. ME Grown. #**7345**A

Perry Pears Pyrus communis Perry is fermented pear juice—the pear equivalent of hard cider. While you can ferment any pear juice, the best perry is made from small dry astringent varieties selected over the centuries just for that purpose. Most of these perry pears are not suitable for fresh eating or cooking. These trees are a good investment—they should live to be about 300 years old. Barnet Fall. Mild-bittersweet perry pear. Found south of Gloucester, England, early 1800s, and later grafted and distributed by the Long Ashton Research Center in Bristol. Small russeted egg-shaped fruit is greenish yellow and often blushed with orange-red. Fruits are easily shaken from the tree when ripe in early to mid-fall. Also called Hedgehog as the drops can resemble baby hedgehogs curled up in the grass.

Brandy Fall. Medium-sharp perry pear. Southwest England, about 1820. Too bitter for fresh eating but very good for making a strong aromatic perry. Also suitable for cooking. Medium acidity, low tannin. (SG 1.069) Small roundish-pyriform yellowish fruit with a reddish blush. Brandy was one of the pears used by James Marsden and Helen Woodman in the delicious perry we drank at their Gregg's Pit Orchard in Herefordshire. Their press had a large flat grooved stone base that looked to be about 300 years old. It probably was. Annual or tending to biennial. Medium-small spreading tree. Probably Z4. ME Grown. #7347A

Low in acid and tannin and a great sweet addition

to perry blends. (S.G. 1.052) Scab resistant and

precocious. Blooms late. Z4. #7346A

Butt Late Fall. Bittersharp traditional English perry pear. Unknown origin, possibly from Norton Village, Gloucestershire, England, before 1886. Also known as **Norton Butt**. Bittersharp with medium acidity and high tannin—everything you want for the perfect perry. Small (less than 2") yellow-green turbinate or roundish-obovate fruits ripen late. The old saying goes: "Gather your Butts one year, mill them the next and drink the year after." You pick them in the late fall this year, press them in January and drink the perry the year after that. Best blended with other perry pears. Z4. #7348A

Pear Collections

Overwhelmed by choices? Let us choose for you, and you'll save 10% on cost per tree. Collections are not customizable.

European Pear Collection A bundle of 5 different cultivars to start your culinary pear orchard. Will include a combination of heirloom and more modern pears. Trees are individually labeled. (Will not include any perry pears or Asian pears.) All hardy to Z4.

7795A European Pear Collection, bundle of 5, \$171.00

Perry Pear Collection A bundle of 3 different varieties to start your perry pear orchard. Most perry pears are not suitable for fresh eatingthey are for pressing and fermenting into an exquisite beverage. Trees are individually labeled. All hardy to Z4.

7796A Perry Pear Collection, bundle of 3, \$102.75

Growing Pears and Quince

Soil: Prefers well-drained fertile soil.

Sun: Full.

Pollination: Although some pears and quince may be self-fruitful, we recommend planting a second variety of the same species for best yields. (One exception is that Bartlett European pear will pollinate Asian pears.)

Spacing: 15–20' apart

Planting and Pruning: Protect young trunks of pears and quince from the roundheaded appletree borer. See pages 67-70 for instructions on soil prep, planting, pruning and pest control.



ASIAN PEAR TREES - \$39.00 EACH

Asian Pears Pyrus pyrifolia

There are thousands of named Asian pear cultivars in China, where they have been grown for more than 2000 years. They bear young and are long-lived. Asian pears differ from European pears: they are crisper and very juicy, sweet and mild with a nutty background, and are roundish in shape. Because they set heavily, thin the crop once or even twice during the first two months after bloom to ensure large fruit. Leave about one fruit per spur. Unlike European pears, they should be tree-ripened. When the seeds are black, the pears are ready. They ripen in late summer and keep for several weeks with refrigeration.

Asian pears reach 15–20' at maturity. (3-6' trees)

Hosui Late Summer. Ri-14 (Kikusui x Yakumo) x Yakumo. Nat'l Hort Res Stn, Tsukuba, Japan, 1972. Firm crisp fine-textured juicy mild subacid yet sweet rich-flavored white to off-white flesh is considered by some to be the best-flavored of all Asian pears. Large round-oblate long-stemmed fruit with medium-thick skin covered with glowing yellow-orange-golden brown russet and numerous light-russet dots. Standard commercial variety. Will store for a month. *Hosui* means 'much water.' Medium-sized very vigorous productive tree. Susceptible to fireblight. Z4/5. **#7350A**

Kosui Late Summer. Kikusui x Wasekozo. Natl Hort Res Stn, Tsukuba, Japan, 1959. Crisp, juicy and very sweet. Medium-sized fruit is mostly covered with golden-brown russet. Early ripening, two weeks before Hosui, and keeps for about two months. *Kosui* means 'good water.' Medium-sized vigorous spreading tree. Some resistance to scab. Z4/5. **#7351A**

Niitaka Late Summer. Amanogawa x Imamura-Aki. Akio Kikuchi intro, College of Ag, Tottori, Japan, 1927. Large roundish orange-brown russeted fruit with sweet crisp juicy flesh. Candy-sweet with aromatic flavors of caramel. Great for fresh eating and canning. Medium to low vigor, very upright, highly productive. Stores 2 months. Z4/5. **#7352A**

Shinko Fall. Nijisseiki seedling, Japan, 1941. Yellowish flesh is sweet, crisp and juicy, with very good flavor. Mediumlarge lumpy round brownish russeted fruit ripens late and stores up to 3 months. Shinko means 'new success' in Japanese. Moderately vigorous precocious annually bearing tree. Fireblight resistant. Z4/5. #7353A

Shinseiki Late Summer. Nijisseiki x Chojuro. Teiji Ishikawa intro, Okayama Prefecture Ag Exp Stn, Japan, 1945. White flesh is crisp, sweet and mildly tart with lots of juice. Medium-sized round-oblate light to medium-bright yellow fruit, with little to no russeting. Shinseiki means 'new century.' Keeps about 3 months in storage. Dense spreading precocious productive tree. Disease resistant. Z4/5. #7354A

Shinsui Summer. Kikusi x Kimizukawase. Hort Res Stn, Yatabe, Japan, 1967. Medium-sized round-oblate

yellowish-brown russeted fruit with crisp juicy fine-textured very sweet flesh. One of the earliest to ripen each year. Pennsylvania grower and Asian pear aficionado Ike Kerschner considers this a great pear. Keeps about 6 weeks in refrigeration. *Shinsui* is translated as 'new water,' 'adoration,' 'inundation' and more. It is also the pseudonym of one of Japan's most famous 20th-c. artists, Ito Shinsui (1888-1972), Z4/5. #7355A

Yoinashi Fall. Fowler Nurseries intro, Newcastle, CA, about 1987. Fine-textured off-white flesh is crisp, juicy, aromatic and sweet. Large conic light brown russeted fruit. Means 'good pear' in Japanese. It is a good variety! One of the folks at Fowler Nurseries described it to us as having "a little bit of a zip" to it. Harvest after Hosui and before Shinko. Upright medium-vigorous tree. Moderate tolerance to fireblight. Z4/5. **#7356A**

QUINCE TREES - \$42.00 EACH

Quince Cydonia oblonga

At one time, every Maine dooryard had a quince, a small tree with large tan or yellowish aromatic fruit with mild light yellow flesh. The fragrance is so intoxicating that just having a bowl of ripe fruit on the table might distract you from getting around to cooking them! Large lovely white to pink flow-

ers—not to be confused with the small-fruited Chaenomeles, Flowering Quince. The wood of mature trees becomes impressively gnarled and twisted. Quince are native to Asia. Great in stews and preserves. Makes a fragrant orangey-pink jelly—unlike anything we've tasted. Sometimes added to hard cider. We asked longtime Fedco friend Aktan Askin, who grew up in Turkey, the world's largest quince producer, what he most loves about the fruit: "I love the sound a big, fully ripe quince makes as it falls off the tree and hits the ground. So solid. So invincible. Thunk! But

that aside, I really just love eating

fresh quince with a spoon. Carving little balls out and chewing to juice them in my mouth."

Ripens in October in central Maine; may not ripen in coldest areas. Susceptible to fireblight and apple borers.

Trees reach 10-25' at maturity. (3-6' trees)

Aromatnaya A very hardy Russian variety, maybe the hardiest of them all. Selected for its pineapple-like flavor notes and disease resistance. Z4/5. #7361A

Pineapple Named by breeder Luther Burbank for the pineapple-like flavor of the fruit when made into jelly. Late bloomer ripens in late summer. Z4/5. #7363A

Smyrna Brought from Smyrna, Turkey, by Californian GC Roeding, whose father Fred brought the famous Smyrna fig to the U.S. Selected for excellent flavor and good keeping quality. Z4/5. #7364A

MULBERRY TREES - \$42.00 EACH

Mulberries Morus spp.

Sweet flavorful purple-black 1" blackberry-like fruit is delicious fresh, in sauces, pies, fruit leather or smoothies. What fruit you don't pick, the birds will. Great tree for viewing a huge variety of birds up close. Plant it next to the chicken pen where it will rain chicken feed into the yard for several weeks, or put down a sheet to collect the fruit as it falls.

Dense round-topped tree is one of the last to leaf out in the spring. Fast growing, even in poor soils. **Self-fruitful**. (3-6')

Illinois Everbearing 30x20' *M. alba* x *M. rubra* White County, IL., 1947. Sweet black fruit begins ripening in mid-July and continues for several weeks into late summer or longer. Aaron Parker of Edgewood Nursery in Falmouth, ME, had fruit on his tree into October! Z4/5.

Northrop 30x20' *Morus* hybrid. One of the hardiest mulberry varieties we've come across—known to survive winter temperatures of -50°. Tasty medium-sized black fruit ripens over a period of several weeks in midsummer, though does not have as long of a picking season as the everbearing types. Originally introduced by St. Lawrence

Nursery, the mother tree from upstate New York is now 70' tall and more than 170 years old! Z3. ME Grown. #7360A

Growing Mulberries

Soil: Adaptable, but prefers moist well-drained soil. Rugged! Withstands pollution, drought, wind and salt.

Sun: Full sun to part shade.

Pollination: Self-fruitful. You just

need one!

Spacing: 20–30' apart

Planting and Pruning: See pages 67-70 for instructions on soil prep, planting, pruning and pest control.



CHERRY TREES - \$38.50 EACH

Stone Fruits Prunus spp.
Widely cultivated around the world and adaptable to most of New England. Not highly particular as to soils. Clingstone means the fruit's flesh sticks to the pit (or stone) and a freestone pit drops cleanly away

Stone fruit cultivars are grafted trees. Seedlings are labeled.

from the flesh.

Sweet Cherries P. avium

Generally grow into large trees although the flowers are tender and fruiting can be iffy in central Maine and north. We are testing the hardiest varieties and hope to keep adding more varieties.

Mature trees reach 25–30' tall. (3-6' grafted trees)

Benton Summer. PC7146-8 Stella x Beaulieu. WSU, 2003. Highly flavorful large firm deep red cherry resembles Bing. Neighbors reported that the cherries on their young tree had a sweet chin-dripping heavenly flavor that made them think of little plums dressed up in cherry suits. Less susceptible to cracking than other varieties. Flowers almost a week later than other sweet cherries, potentially missing late frosts. Vigorous upright and spreading growth. Self-pollinating. Z5. #7365A

BlackGold Summer. NY 13791 (Stark Gold x Stella) NY Station, 2001. Also known as Ridgewood. Large beautiful glossy dark red heart-shaped sweet fruit of very high quality. Upright spreading growth habit. Much more adapted to eastern U.S. conditions than Bing cherry and other "western cherries." Late blooming and very hardy. Survived –33° in SW Minnesota. Self-pollinating. Disease and crack resistant. Z4. #7366A

Lapins Summer. Van x Stella. Summerland Res & Dev Ctr, BC, Canada, 1983. Large sweet high-quality black-mahogany-red fruit. Ripens a week after the popular variety Stella, by mid-July in warmer districts. Very vigorous, productive and upright; crops consistently in central Maine. **Self-pollinating**, but benefits from planting with another variety. Z4/5. **#7367A**

Rainier Summer. Wash. P1-680 (Bing x Van) Harold W. Fogel intro, WA Ag Exp Stn and USDA, 1960. Classic dessert cherry. Very large fruit, light yellow skin with red blush. Firm fine-textured flesh with a distinct delicious flavor. Colorless juice. Good fresh or canned. Quite resistant to cracking. Ripens midsummer. Vigorous productive tree. Early to come into bearing. **Requires a second variety for pollination.** Z4/5. **Indigenous Royalties.** #7369A

WhiteGold Summer. NY 13688 (Emperor Francis x Stella) NY Stn, 2001. Also known as Newfane. From the breeding program in Geneva, NY, another highly admired all-around excellent sweet cherry for the Northeast. Light red-yellow fruit with good size, great flavor and heavy cropping. Sweet light-colored flesh. Bob Purvis called it "the Rainier of the North." Disease and crack resistant. The first self-fertile light-fleshed cherry released commercially in the U.S. Self-pollinating. Z4. #7372A

Relative ripening dates

Although our catalog focuses on woody plants that do well in the northeast, we have customers all over the U.S.—up along the Canadian border, in the mid-Atlantic states, down in the mountains of North Carolina and out west in the high desert—anywhere hardiness is important. We love having customers so spread out, but it's not easy to tell when a variety will ripen in

every far-flung orchard. A fruit that ripens in September in northern
Maine might ripen a month earlier in Pennsylvania. Ripening
dates also vary from year to year
depending on conditions. Not only
that, the fruit might be exquisite
up north but rather blah farther
south. That's the nature of
these varieties, and it's part of
why we offer a wide selection.
We think you'll find varieties that
can thrive in your area.

Pie Cherries P. cerasus

Also called **Sour Cherries**. Delicious enough to eat right off the tree and especially good in pies. They fruit in early to midsummer and don't mind heavy soil. Pie cherries are groups lly divided into two groups. Morrello

generally divided into two groups: Morello types have dark red spherical fruit, dark juice and relatively small compact trees Montmorency (or Amarelle) types have light red slightly flattened fruit, clear juice and medium-sized somewhat open trees.

Pie cherries are typically hardier than sweet cherries, but flower buds may still be damaged in colder winters. We often encounter excellent crops in central Maine. Mature trees are 10–15' tall. (2¹/2-5' trees)

Balaton Summer. Parentage unknown. MSU, 1998.
Originated in Ujfeherto, Hungary; brought to the
U.S. by horticulture professor Amy Lezzoni
during her search for later blooming

cherries. Fruit is sweeter, larger and firmer than Montmorency, making it one of the best sour cherries for fresh eating. Dark-skinned, red-fleshed Morellotype cherry makes a dark red juice, excellent pie and incredible jam. After WWII, the Hungarian government created large cooperative farms throughout the country, and scientists went

around collecting sour-cherry scions for propagating regional varieties. The cherries from the village of Ujfeherto were considered the best.

When Lezzoni eventually brought the cherry to the U.S., she knew it needed a name that was easier to pronounce than Ujfehertoi Furtos. In an interview with NPR, she explained why the cherry was named after a lake on the opposite side of the country: "Well, if you look at a Hungarian map, about the only thing an American can pronounce is Lake Balaton." Fruiting in Zone 4 regions of Maine. Self-pollinating but more productive when pollinated by other cherries. Z4/5. #7373A

English Morello Summer. Netherlands or Germany, before 1860. Sometimes called Grosse Cerise à Ratafia, Grosse Lang Lothkirsche, Griotte du Nord, Morris and Colorado Morello. Excellent culinary cherry, recommended for pies and all other cookery. Very dark red-black skin. Dark red flesh and juice. Ripens late, after Montmorency. Distinctive small roundish tree with drooping branches. Brown-rot resistant. Despite the name we know it by, it is thought to have originated on the European mainland, eventually finding its way to England and then North America. Z4/5. **Self-pollinating.** #7374A

Montmorency Summer. Seedling of Cerise Hâtive or Cerise Commune. Montmorency Valley, France, before 1600. Introduced to the U.S. c. 1830. The most famous of all pie cherries, long considered the standard of excellence in the U.S. Aromatic firm-fleshed bright red fruit makes a clear light pink juice and is a favorite for processing. Tart but still enjoyable fresh off the tree when fully ripe. Birds love them, too. Surprisingly hardy, showing no signs of dieback in central Maine after the arctic blast of February 2023. In Aroostook County, trees fare better than Meteor. Appears to be resistant to brown rot. Vigorous productive medium-sized upright-spreading tree tolerates a variety of soils. **Self-pollinating.** Z3/4. **#7378A**

Growing Sweet and Pie Cherries

Soil: Prefers well-drained fertile soil; pie cherries are more forgiving and adaptable than sweet cherries.

Sun: Full.

Pollination: Most sweet cherries need a second variety for pollination, so plant two or more for best results. Pie cherries are self-pollinating.

Spacing: Plant sweet cherries 25' apart. Plant pie cherries 15–20' apart.

Planting: See pages 67-70 for instructions on soil prep, planting and pest control.



PEACH TREES - \$38.50 EACH

Peaches P. persica

Northern New England peach growing can be very successful. The trees often bear so heavily that the fruit needs thinning and the branches need support. Some winters can be hard on certain peach trees, and they may die. Other trees live for many years. Replant and try again. They are worth the trouble, and since they bear young, you won't have to wait too long! Mature trees will be 10–15' tall. (3-6' trees)

Belle of Georgia Late. Seedling of Chinese Cling. Marshallville, GA, about 1870. Also called **Georgia Belle**. Old-time white-fleshed favorite, surprisingly hardy in spite of its origin. Large beautiful roundish-oval cream-colored fruit with a bright red blush and thin tender skin. Flesh is white, tinged with red, and firm, melting, juicy. Freestone. Very good fresh eating, cooking and canning. Large vigorous productive tree. Resistant to bacterial spot, slight resistance to brown spot. Hardier than we originally thought; we now know of trees fruiting well almost as far north as Bangor. Z4/5. #7380A

Blushingstar Mid. Fruit Acres intro, Coloma, MI A newer white-fleshed release from the Stellar Peach breeding program in Michigan, late 1990s. Very good fresh eating. The flesh is white, tinged with pink, turning red at the pit. Completely freestone and slow to turn brown when cut. Ripens about 20 days after Redhaven. Tree is hardy, open-growing and resistant to bacterial spot. Doing well in our central Maine orchards and worth trialing in much of the Northeast. Z4/5. #7382A

Canadian Harmony Mid. Harrow Ag Res Stn, Ontario, Canada, 1968. Large fruit with a red blush over gold skin. Yellow flesh is sweet and juicy—an overall great all-purpose peach for fresh eating, canning or baking. Freestone. Buds are hardy to about –20°. Z5. #**7383A**

Contender Late. NCT 544 (Winblo x complex parentage of North Carolina selections) DJ Werner, JR Ballington and DF Ritchie intro, Ag Exp Stn, Raleigh, NC, 1988. Extend your peach season with this highquality variety that is proving to be hardy in northern Maine. Large round bright red and yellow freestone fruit with a slightly raised suture. Firm melting aromatic yellow flesh. Growth habit similar to Redhaven, but fruit ripens 3 weeks later. Resistant to leaf spot. Because it blooms quite late, it might escape late spring frosts. Z4 maybe Z3. #7384A

Garnet Beauty Early. A sport of Redhaven discovered by Garnet Bruner in 1951 and introduced in Ruthven, Ontario, 1958. Mediumto-large yellow-fleshed semi-clingstone fruit with excellent flavor. Causing buzz in northern peach-growing districts. The earliest peach we offer; ripens 12 days before Redhaven with similar hardiness. Vigorous and productive tree. Good bud hardiness. Took a beating during a -20° cold snap but bounced right back with full vigor. Z4/5. #7385A

Growing Peaches

Soil: Prefers well-drained fertile soil.

Sun: Full.

Pollination: Self-pollinating. Spacing: Plant 20' apart.

Planting: See pages 67-70 for instructions on soil prep, planting and pest control.

Pruning: Prune in spring after the buds begin to swell and show pink. Remove dead and inward-growing branches. Make a few bold cuts to bring main branches closer to the trunk. After cutting back any main branches, thin last year's shoots and cut them back to about 12–18". When you're done, the tree shape should look something like an open hand reaching for a peach, with the tree not much taller than 10' or so

The goal is to keep trees small and open. Peach trees grow vigorously each year and fruit on the previous year's wood. Leggy branches will break from the weight of fruit.

Pest Control: Peaches are usually unaffected by pests or diseases in northern areas, the occasional exception being **peach leaf curl.** PLC is not fatal but does need to be controlled. Look for crinkled or puckered foliage in spring, remove affected leaves, and compost them. Early the following spring (before buds open), spray the dormant tree with lime, sulfur or copper. Onion, garlic or horsetail spray while leafed-out may also be effective. It's common for peaches to have black gummy wounds. This is usually harmless and happens from any environmental stress, even when a bird or a bug looks sideways at the tree.

Glowingstar Late. One of the Stellar series peaches bred for cold hardiness, disease resistance, size and flavor. This one checks all the boxes! Medium-large attractive fruit is more than half blushed red. Firm juicy yellow flesh. Ripens 2-3 weeks after Redhaven, so around mid-September in central Maine. Hangs on the tree till it's ripe. Freestone. Resistant to bacterial spot. Z4/5. #7386A

Madison Late. Ideal x Redhaven. VA Stn, 1963. A fine peach for the North, with hardiness similar to Redhaven but ripening 3 weeks later. Medium-large fruit with bright orange skin and bright red blush. Orangeyellow firm fine-textured juicy flesh with excellent very sweet rich peach flavor. Skin peels easily. Freestone, excellent canner. Very

productive. Exceptional tolerance to blossomseason frost. Two winters ago deep freeze caused widespread dieback on all of our peach trees, but Madison fared well. A Fedco favorite! Z4.

#7389A

Redhaven Early-Mid. Halehaven x Kalhaven. MI Ag Exp Stn, 1940. Medium-sized round fruit with beautiful red and golden-yellow skin and sweet firm finetextured yellow flesh. Non-browning. Excellent for eating,

freezing, canning, shipping. Countless Fedco customers call this their favorite peach; also the world's most widely planted freestone peach. Hardy buds; trees have produced crops in southern Aroostook County orchards. Vigorous highly productive diseaseresistant spreading trees are tolerant to bacterial spot. Z4. #7390Å

Reliance Early-Mid. Open-pollinated seedling of Minn PHO 4559 x Meredith. NH Ag Exp Stn, 1964. Considered the hardiest peach, most recommended for coldest areas. Medium-sized, roundish, freestone. Rather dull red blush over greenish yellow. Bright yellow flesh, soft and juicy. Flavor usually considered fair, but we love it in Maine for its unfailingly reliable crops no matter what. Often produces large crops. Bears at an early age. May have some resistance to peach leaf curl. Z4 and pockets of Z3. #7391A

Saturn Early-Mid. NJF2 (NJ602903 x Pallas) Rutgers NJ Ag Exp Stn intro, 1985. From a category called Peento peaches, doughnut peaches or UFO peaches because they are flat! Looks like it came from the other side of the galaxy, or the bagel shop. Descended from the wild disc-shaped pan tao peaches in China. Bred for bud cold-hardiness while maintaining the pan tao's legendary sweet aromatic peachy deliciousness. Red blush over a creamy green background. Semi-freestone with sugary white flesh. Pick them a little firm. Great for drying into tropical-flavored gummy-like treats. Ripens around the same time as Redhaven. Heavy yields on vigorous tree. Resistant to leaf spot. Z4. #7392A

Peach Seedlings - priced separately

These trees were grown from seeds, rather than grafted onto rootstock like the other peach trees we offer. Plant them for processinggrade fruit, or topwork (graft) other varieties onto them. (3-6' trees)

Lovell Peach Seedling 15-25' A chance seedling selected in California in 1882 as a quality canning and drying peach. Yellow-fleshed freestone fruit is also decent for fresh eating. Grows relatively true to type from seed, retaining the desirable characteristics of the parent. Renowned for vigorous growth and low suckering, Lovell makes hardy disease-resistant rootstocks compatible with plums, nectarines and apricots. Z4. ME Grown.

7388A Lovell Peach Seedling, \$22.00 7388B Lovell Peach Seedlings, bundle of 5, \$99.00

NEW! Siberian C 12-15' Extremely hardy; originated in the extreme conditions of the Gobi Desert. Thrives where other peaches might fail. Long prized as a cold-resistant dwarfing rootstock, it's gaining popularity for its own abundant crops of small tasty yellow-skinned white-fleshed fruit. Rich, sweet and tart. Best for juicing and drying. Good fresh eating, though fruits tend to be a little hard. Ripens very late, a bit after Madison. Compact trees show resistance to brown rot and pests. Z3.

7393A Siberian C Peach Seedling, \$22.00 7393B Siberian C Peach Seedlings, bundle of 5, \$99.00

HYBRID PLUM TREES - \$39.00 EACH

Hybrid Plums Prunus spp.

Extremely hardy crosses between various Asian and American species; may fruit even after severe winters.

Hybrid plum fruiting can be inconsistent but it's worth the trouble! Warmer areas will see longer bloom times. Cold late springs may force blooming all at once. Both of these conditions can be optimal for plum crops. At other times, it can be a little hit or miss. Bloom times are similar for all the varieties we offer.

Hybrid plums are less susceptible to black knot than European plums and have few issues other than Japanese beetle and plum curculio attraction

At maturity, hybrid plums are roughly 15–20' tall. (3-6' trees)

Black Ice Midsummer. *P.* Lydecker [*P. besseyi* x (*P. salicina* Oka x *P. sal.* Z's Blue Giant)] U of WI, River Falls, 2006. Large 2" round early-ripening high-quality hardy blue-black dessert plum. Very sweet juicy reddish-purple semi-freestone flesh. Precocious and productive tree with a naturally compact growth habit. Bred by Brian Smith, whom we visited on a fruit exploration trip in the Upper Midwest. He graciously showed us around his amazing nursery in River Falls, WI. He was growing many of his plums in huge tubs, manipulating bloom time using greenhouses and coolers. This enabled him to cross species or varieties that would never normally flower together. The literature recommends Toka or La Crescent as a pollinator. PPA expired in 2024. Z3. #7396A

Kahinta Mid-Late Summer. Luther Burbank's *P. sal*. Apple x *P. a*. Terry. SD, 1912. Another intro by plant breeder NE Hansen. Large 1¹/2" roundish slightly pointed fruit is flattened at the stem end. Brilliant red-purple tart skin and translucent yellow-orange tart but quite flavorful flesh. Easy to peel; peeled fruit looks like a peeled tangerine. Or you can bite a small hole in the skin and suck out the juicy flesh. Clingstone. Very good for fresh eating or canning. Medium-sized spreading tree. Kept pruned, our old tree remains about 8' tall. Bears more reliably than most other varieties in our orchard. *Kahinta* is the Sioux word for 'sweep.' Rare. Z3. **ME Grown. Indigenous Royalties.** #7401A

La Crescent Late Summer. *P. sal.* Shiro x *P. a.* Howard Yellow. U Minn, 1923. Also known as **Golden La Crescent** or **Golden Minnesota**. Most of the hybrid plum varieties are colored with some variation of red and orange with a little purple tossed in. Yellow-skinned La Crescent is one notable exception. The beautiful roundish tender thin-skinned yellow fruit is sometimes blushed with a little pink.

Tender yellow juicy flesh of excellent quality is sweet, aromatic and suggestive of apricots. Freestone. Upright spreading vigorous tree. Z3/4. ME Grown. #7402A

Lavina Mid-Late Summer. *P. cerasifera* x *P. sal*. Developed in Lithuania, early 2000s. May also be known as **Avalanche**. Rare variety in the trade. Stunning golden-yellow skin is blushed dark red to pink when fully ripe—one of the most attractive plums in the orchard with fruit weighing in at just over an ounce. Amber flesh is meaty with unusual flavor notes of papaya and caramel. Ripens in mid-late September in central Maine. Seems to bloom around the same time as Toka. Grower Jesse Stevens' grafts survived a cold snap of -26° with only minor dieback. Highly vigorous growth. Semi-freestone and crack resistant. Z4. **ME Grown**.

Purple Heart Late Summer. Elwyn Meader intro, Enfield, NH, 1968. Medium-sized clingstone fruit with red-purple skin and flesh. Some say the most delicious plum we offer. Meaty, mild and rich with no astringency. It's wonderful. Origins shrouded in mystery. It was brought to the great plant breeder Professor Elwyn Meader by a fellow who passed away before Meader could ascertain the plum's origin. We planted ours next to Black Ice: both are fruiting well. Underwood also may be a good pollinator. Not as hardy as other hybrids. May show tip damage following colder winters in central Maine, some susceptibility to black knot. Z4/5. **ME Grown. #7407A**

Shiro Midsummer. Uncertain parentage (thought to be *P. simonii* x *P. sal.*). Luther Burbank intro, California, 1899. Although Shiro's parentage is unclear—it may be a pure Japanese type—it's hardy in much of Maine, especially along the coast and Portland south. The 1½" round-conic thin-skinned fruit is light yellow, deepening as the season progresses and sometimes colored with a pinkish blush. The sweet chin-dribbling light-yellow translucent flesh is so juicy it might soak your shirt. Or skip the mess and jam or can them. Broadly spreading picturesque tree will eventually span 30' or more but tops off at only 10 or 12'. Z5. **ME Grown**. **#7408A**

Waneta Midsummer. (*P. sal.* Apple x *P. a.* Terry) NE Hansen intro, SD Exp Stn, 1913. Released when hybrid plums were an important and commercially viable crop. Medium to large, somewhat pointed, 1½–2" reddish-maroon clingstone fruit. Sweet tender translucent orange flesh is very juicy but not dripping. Medium-thick skin, tart and easy to peel. Delicious overall taste. Hansen said of Waneta: "My belief is that in this variety I have combined the best points of the native and the Japanese plum. It is probably the largest [fruit] of over 10,000 seedlings." Early blooming healthy open spreading tree bears reliably in our orchard. Named after a Yanktonai youth who won fame in the War of 1812 and later became a great chief. Z3. **Indigenous Royalties.** #7411A

American Plum Seedling - priced separately These trees were grown from seeds, rather than grafted onto

These trees were grown from seeds, rather than grafted onto rootstock like the other plum trees we offer. Plant these seedling trees to pollinate other plums, or grow them for their own merits. You can also topwork (graft) Japanese plums, hybrid plums and peaches onto them.

American Plum Seedling P. americana 15-20' tall. The best pollinator for hybrid plums! Native to much of North America, grows in thickets and produces very decent red, yellow and orange 1" fruit, suitable for fresh eating, canning and freezing. Fruit will be variable. Spectacular white bloom in spring is highly ornamental. Red fall color. Plant singly as a graceful specimen, or let the branches intertwine with other plums for maximum pollination, with one American plum for every 3–4 hybrid trees. Tends to sucker freely. This tree stock is significantly larger than plum seedling rootstock (see page 27). Extremely hardy. Z3. ME Grown.

7394A American Plum Seedling, \$22.00

Growing Plums

Soil: Prefers well-drained fertile soil.

Sun: Full.
Pollination:

• Hybrid plums: Requires a second variety. We recommend planting at least 4 different hybrid varieties close together. Including an American Plum Seedling in your grove can help ensure pollination.

• European plums (*P. domestica*): Some varieties may be self-fruitful, but we recommend planting a second European plum variety to ensure pollination.

Spacing: 15–20' apart. For hybrids, you could plant them closer for a thicket.

Planting: See pages 67-70 for instructions on soil prep, planting and pest control.

Diseases: European plums are prone to the fungal disease black knot, which looks like black chewing gum and appears on branches. While not necessarily fatal, it must be kept in check by removing and destroying infected branches.

Plum Curculio... and garlic

Plum curculio is a small pesky insect, a terrible plum and apple pest, that deforms fruit and causes it to drop prematurely. We have read that laying sheets of cardboard under plum (and apple) trees will smother the pupae developing in the soil. Many organic growers spray Surround clay powder on their trees to combat this weevil. (See our Seeds & Supplies catalog or our website for this and more orcharding supplies.)

Many years ago we planted garlic near one of our apple trees and neglected to harvest all the bulbs. Now we have a small colony of garlic plants around the tree. Recent reports are touting garlic as a curculio deterrent. Anecdotal evidence suggests it may be working at our place. Plant more garlic!

EUROPEAN PLUMS - \$39.00 EACH

European Plums P. domestica
Delicious fresh and often grown
commercially for prunes. A true prune is a plum that can be dried without the pit fermenting. We've heard recommendations to blanch the plums for 45 seconds before drying them. European plums produce smaller fruit and are generally not as hardy as the hybrid plums, though they can handle heavier soils and are less prone to brown rot. Trees grow upright and are usually trained to a central leader. Mature trees are 15-20', or smaller. (3-6' trees) NEW! Bluebyrd Late Summer. NY H4 open-pollinated. Harold Fogle selection, USDA-Kearneysville, WV, 1998. Move

over old standbys! This relatively new plum is showing great promise in commercial and home orchards. Blue skin with golden-yellow juicy flesh is very sweet. Clingstone. Tree yields consistent vigorous crops and has shown strong resistance to black knot. Tested for cold hardiness in Geneva, NY, before its release. For pollination, it benefits from a different European plum (not Stanley, which blooms too late). Z5. #7412A

Stanley Late Summer. Agen x Grand Duke. NY Station, 1926. The most popular European prune plum in the U.S. with the possible exception of 'Italian'. Excellent for cooking, eating, canning and drying. Medium-to-large dark blue oval fruits are sweet and juicy with firm but tender green-yellow flesh. Reliably bearing fast-growing adaptable medium-to-large funnel-shaped tree produces healthy vigorous annual crops. Selfpollinating, but planting a second variety will improve pollination. Z4. #7417A

Valor Late Summer. Imperial Epineuse x Grand Duke. Vineland Stn, Ontario, 1967. An excellent all-purpose large semi-freestone fruit with purple-blue speckled skin and greenish-yellow flesh. Best for fresh eating but, like the others, also good dried or canned. In our central Maine trials, this plum has been productive, high quality, cold hardy and resistant to bacterial leaf spot. Ripens a bit after Stanley, in late September or early October. Benefits from a second European plum variety for pollination. Z4. #7418A

Stone Fruit Collections

Overwhelmed by choices? Let us choose for you, and you'll save 10% on cost per tree. Collections are not customizable.

NEW! Cherry Orchard Starter Collection A bundle of 4 different cultivars to start your cherry orchard. Each collection includes one pie cherry and three sweet cherries for a varietal mix and to support pollination requirements. Trees are individually labeled. All hardy to Z4.

7799A Cherry Orchard Starter Collection, bundle of 4, \$138.75

NEW! Peach Season-Extender Collection A bundle of 4 different cultivars to start your peach orchard. Collection will span the ripening season with early, midseason and late peaches to stagger your harvest. You'll get loads of peaches, but not all at once. Trees are individually labeled. All hardy to Z4.

7798A Peach Season-Extender Collection, bundle of 4, \$138.75

NEW! European Plum Collection A bundle of 3 different cultivars to start your European plum orchard. Euro plums are considered self-fertile but planting multiples increases crop yields. Trees are individually labeled. (Will not include any hybrid or American plums.) All hardy to Z5.

7797A European Plum Collection, bundle of 3, \$105.50



Apricots are available on our website!

As our climate changes we've been seeing good crops of apricots on later-blooming varieties in our region; planting apricots seems more worthwhile these days.

Although apricot trees are very hardy, large crops of fruit can be elusive in Maine because bloom time is so early. Consider planting them with northern exposures to delay flowering and improve chances of fruit set.

Apricots are self-pollinating—you only need one for fruit. Take a chance on apricots in the Northeast, and let us know how it goes

We're offering quite a few late-blooming cold-hardy apricot varieties on our website. Supply is limited—get online, and order early!



Indigenous Royalties

Fedco pays a portion of our seed sales of certain varieties—like Hopi Blue corn and Jacob's Cattle bean—to Nibezun, a Wabanaki project here in Maine that is working to rematriate Penobscot land and to create dialogue on healing throughout the extended community (nibezun.org) Our Indigenous Royalties program is one small way to appreciate and recognize the native breeders and seed keepers whose varieties continue to sustain us here on Turtle Island.

For our Trees catalog, we pay royalties on any plant that bears a Native American name. We recognize that Kahinta plum, for example, was given a Sioux name by a white person. These plants were likely named without permission. While this practice continues in the nursery trade, it is not something we embrace. At the same time, we can appreciate a plant as an innocent third party, holding merit in our landscape.

Long before breeding stations and universities, there were Tree Seed

Keepers. Many of our named cultivars likely carry the genetics of the old trees tended long before European arrival. Where you see Indigenous Royalties at the end of our description, you will know we are dedicating 10% of sales of these plants to Nibezun.



Scionwood for Grafting, online ordering only!



Order scionwood by February 20, 2026, for best selection. Scionwood must be ordered online.



Scionwood will be shipped to you in early March.

Rootstock (next page) can be sent with your scionwood order in early March if you select that option when you order, otherwise we'll ship it during our regular spring shipping season.

We sell scionwood in two ways:

By the stick: One 12" stick (\$6 each) can graft 4 to 6 trees.

By the foot: For orchardists grafting large numbers of trees, we also offer scionwood by the foot (\$5.50/foot, minimum order of 10 feet). In our own nursery work, we are usually able to graft 6-8 trees from one foot of scionwood.

Storage: You can graft right away or store scionwood for later use. It will keep quite well for several weeks in the fridge or in a cold dark basement, root cellar or shed. Storing scionwood close to freezing temps can be okay, but the very cold temperatures in a freezer will kill it. Scions will also die if they dry out or are stored without special protection from ripening veggies or fruits. We recommend triple plastic bagging your scionwood. There is no need to dampen the scionwood or to insert wet paper towels before bagging it, as this can lead to mold.

What does a person do with scionwood?

Scions are twigs. They have no roots and will not grow if you plant them. They are cuttings from dormant branch tips, intended for spring grafting.

Is grafting easy? Yes, once you get the hang of it. Experienced grafters often have 100% "take" with their grafting. Beginners often have less. While you can learn to graft from a book or video, we highly recommend the old-fashioned way: find a real person to teach you. MOFGA and other organizations have grafting classes every spring. Find one near you!

There are two general ways to graft fruit trees in spring. You can bench graft by grafting scionwood onto rootstock (see next page). Generally we do this indoors in late March or early April. We keep the little grafted trees packed into a bucket of damp sawdust in a warm spot in the house (77–86°) for a couple weeks to promote callus development. Then we harden them off in a colder (but not freezing) place for a week or two before planting out in nursery beds anytime from late April to mid-May. If trees have begun to leaf out before planting time, we slowly introduce them to direct sunlight before setting them out. In a couple of years when the trees are 3–6' tall, we plant them in the orchard. You can also **topwork** scionwood onto established trees. We do our

topworking after the trees have begun to show some green growth and the bark slips easily from the wood when cut, but before petal fall. The window for topworking is roughly the whole month of May in central Maine, but often can be successful for a week or so on either end.

Fedco's Organic Growers Supply offers everything you'll need for grafting and pruning—knives, pruners, saws, wax, tape and more. See our Seeds & Supplies catalog, or go to our website.

Scionwood Collection at Fedco

Scionwood season at Fedco is a truly hopeful time. Each tiny dormant bud on every stick we ship out has the potential to become a new grafted fruitbearing tree. Last winter we collected nearly 20,000 feet of scionwood from nearly 200 varieties of apples, pears and plums! We ship about half of those scions to customers across the country: first-time grafters, orchardists, apple collectors and cidermakers alike. The rest is distributed to our local growers to propagate most of the fruit trees found in this catalog.

During the frigid days of January and February, scionwood collection is in full swing. We bundle, label and seal the wood in bags to store in our cold warehouse. In March we measure, snip and label the scions for shipping. As our founder John Bunker says, we are passing the baton.

There is no single Fedco Orchard. Over many years John and others from Fedco have built friendly relationships and collaborated with orchards around Maine. In exchange for permission to collect scionwood, we have offered grafting in the spring, pruning in the winter, or traded some trees from the Fedco inventory. A win-win for all.

We have also sourced some of our rare and difficult-to-find varieties from out-of-state orchards. For instance, Poverty Lane Orchards in NH, home of Farnum Hill Ciders, was one of the first in the Northeast to grow many of the now popular European cider apple varieties. For years they shared generously with us while we built up our own scion banks. We continue to collect rare and important varieties and graft them into our own orchards to

ensure access in the future and to localize and streamline our winter scion collection

Sunday, March 29, 2026 Bring seeds and cuttings to share. If you don't have any, come anyway! See mofga.org for details

and to learn about other organic orcharding classes and events

Join us!

Scionwood Exchange

and Seed Swap

at MOFGA in Unity, ME

Scionwood Varieties 2026 Online only!

We expect to offer around 140 varieties on our website. Many of the apples we're listing as trees in this catalog will also be available as scionwood. Here's a sample of other apple scions we plan to collect:

Adam's Pearmain Aunt Penelope Winslow Ben Davis Bethel Black Gilliflower Blenheim Orange Bullock Centennial Claygate Pearmain Cora's Grand Greening Cornish Gilliflower Court Pendu Plat Ellis Bitter **Empire** Fireside Freedom Ginger Gold Gnarled Chapman Golden Delicious Grindstone Holstein Honeygold I_95 James Grieve Jonathan Kandil Sinap Kavanagh Kennebec Russet King of Tompkins County Liveland Raspberry Mantet Melba Milden Mother Mutsu Opalescent Otterson Pitmaston Pineapple Pomme d'Or Pomme Grise

Roman Stem Scott's Winter

Smokehouse Spencer

Swaar

Twenty Ounce

Winesap White Pippin Winn Russet

Comtesse Clara Frijs Pear Gorham Pear Stacyville Pear Elephant Heart Plum Green Gage Plum Hanska Hybrid Plum Illinois Everbearing Mulberry

Willow cuttings:

Burgundy Curly Willow Super Curl Red Curly Willow Green Curly Willow

... and many more, all available online!



ROOTSTOCK - BUNDLES OF 10 FOR \$38.00

Hardy Rootstocks for Grafting

We consider these to be some of the best rootstocks for home or commercial use. Even without grafting, any of these will produce fruit suitable for wildlife. For rootstocks not listed, or for larger calipers or larger quantities, please contact us for information.

Because of the way they are propagated, clonal rootstocks (B118, M111, G11, B9 apples and OHxF97 pear) rarely come with more than a few roots. Don't fret: they're alive and well, and with proper care and planting they will thrive.

You can receive your rootstock sooner—shipped early March—if you select the early shipment option online. Otherwise, your rootstock will be shipped later during our regular schedule.

Please note! We do our best to provide 1/4" caliper stock, but we cannot guarantee scion or rootstock caliper. Because of factors beyond our control (like weather!) stock may be 3/16-3/8".

Apple Rootstocks

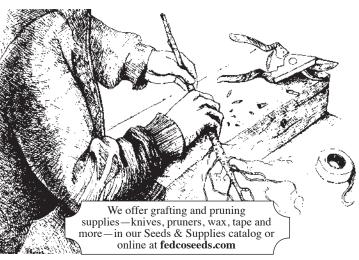
Malus domestica (Apple) Hardy seedling rootstock for full-sized "standard" apple trees. The hardiest rootstock we offer. This replaces Antonovka rootstock, which we've carried for decades but can no longer get because of war in Ukraine. Space trees 20–30' apart. Z3. **#7322A**

Malus 'Budagovsky 118' (Apple) [Moscow Pear x (M8 and M9 pollen)] Michurinsk College of Ag, Michurin, Russia. Also called Bud 118 or B118. Semi-dwarf rootstock, about 85–90% of standard. Sometimes referred to as a "semi-standard" or even a standard. Space trees 20–25' apart. More productive and precocious (fruits at a young age) than trees on standard rootstock. Very winter hardy and soil adaptable. Generally not used in commercial orchards due to its large size. Note that reddish cambium does not scrape green like other rootstocks. Moderately resistant to collar rot and fireblight. Z3. #7323A

Malus 'M111' (Apple) [Northern Spy x Merton 793 (Northern Spy x East Malling11)] Collaborative intro of East Malling Research Stn and the John Innes Institute, Merton, England, about 1950. Technically named MM111, the MM refers to Malling and Merton. Very popular semi-dwarf rootstock produces a tree about 65–80% of standard. Space trees 15–20' apart. No staking necessary. More precocious than standards. Well anchored and adaptable to a wide range of soils. Resistant to woolly aphid. Prone to suckering. Not nearly as long-lived as standards. Hardy to Z4, maybe Z3. **#7324A**

Malus 'Geneva 11' (Apple) Also called G11. Cornell U intro, NY. Dwarf rootstock produces a tree about a third the size of standard, about halfway between M9 and M26 (a bit larger than Bud 9). Space trees 8–10' apart. Suckers only slightly. Moderately susceptible to woolly aphid. Excellent fireblight resistance. Requires staking and irrigation in most locations. Z4/5. **#7325A**

Malus 'Budagovsky 9' (Apple) [M8 x Red Standard (Krasnij Standart)] Also called **Red-leafed Paradise** or **Bud 9**. Michurinsk College of Ag, Michurin, Russia, 1946. Dwarfing rootstock, produces a tree 25–55% the size of a standard tree. Highly productive and precocious with large fruit size. Very hardy though not as hardy as standard. In most locations, requires mulching, staking and irrigation. Space trees 5–10' apart. Note that reddish cambium does not scrape green like other rootstocks. Some resistance to fireblight. Z4. **#7326A**



Stone Fruits and Pear Rootstocks

Prunus americana (Plum) Seedling rootstock for American, Japanese or hybrid plums. Also recommended for grafting peaches. Seedling plum produces very decent 1" fruit without grafting. The best pollinator for hybrid plums. (See explanation in plum section on page 24.) **#7327A**

Prunus avium 'Mazzard' (Cherry) The rootstock we use for grafting sweet and pie cherries. Shallow spreading root system. Longer lived than Mahaleb though not as hardy. Does not do well in heavy poorly drained soils. Z4, sometimes Z3. #73284

Prunus cerasifera 'Myrobalan' (Plum) Seedling rootstock for European plums. Previously not recommended for American or hybrid plums, but we are seeing some compatibility in our trials. Z3. #73204

Pyrus 'OHxF97' (Pear) (Old Home x Farmingdale 97) Produces a vigorous hardy well-rooted almost-standard-sized tree. Superior to *Pyrus communis* in numerous ways, and can be used for both European and Asian pears. We use "97s" for most of our Fedco catalog offerings. Z3/4. #7330A

Rootstock Propagation at Fedco

Most of the rootstock we offer is produced commercially on a gigantic scale, clonally propagated and typically grown in large Pacific Northwest nurseries where fertile soil and milder winters create ideal growing conditions. Research institutions developed these varieties over many years to achieve the desirable characteristics, like cold hardiness, disease resistance and mature tree size. We've been experimenting with our own clonal rootstock propagation on a smaller scale, and this year we will offer our first-ever certified-organic Bud 118 rootstock, grown in stool beds here in the Northeast by Eve's Cidery in Van Etten, NY (check our website for **Organic Bud 118**).



Rootstocks can also be grown from seeds of hardy and resilient varieties. For decades Antonovka has been the mainstay of Fedco's line of standard-sized apple trees. Antonovka rootstock is grown from seed that has historically been sourced from Russia and Ukraine, where Antonovka apples are popular for cooking, fresh eating and processing. Due to the ongoing war and volatile political climate in Ukraine, this source of seed has become increasingly unreliable and difficult to get. For the first time in Fedco's history, we do not have a supply of Antonovka rootstock. In its place, we will be offering *Malus domestica* as our standard-sized rootstock. *M. domestica* seed is sourced from a variety of cold-hardy cultivars and is similar to Antonovka in most respects.

We have also been experimenting with growing Borowinka rootstocks from locally collected seed as a possible long-term alternative to Antonovka. Borowinka refers to any tree grown from the seeds of Duchess apples, which are unusual in that they grow out true-to-type. (The seeds of most apples will grow into trees with fruit that is different from the parents.) Duchess trees are abundant in Maine and have proven to be some of the toughest and hardiest around. We've had success grafting onto our own Borowinka stocks, and last fall we took this trial to the next level by sending nearly a pound of fresh seed to one of our commercial suppliers in the Pacific Northwest to grow out for us. We are excited to receive the stocks this spring for grafting trees for future catalogs!

BLUEBERRY PLANTS - \$19.00 EACH



Many of Maine's lakes are lined with massive stands of highbush blueberries, native to North America. Grazing the shore requires only time and a suitable vessel; we prefer kayak or canoe. The beautiful vigorous shrubs are extremely easy to grow at home, productive and reliable. By planting several varieties, you can harvest berries from early July through most of August. First crops come 3–5 years after planting. Productive for at least 20 or 30 years. Berries may turn blue before they reach their peak flavor. Leave them on the bush until they are fully ripe. Check a few before you pick them all! Parentages can be found on our website. (gallon pot, 15-20")

NEW! Aurora Late. 4-5'. Michigan, 2003.
Medium-large powder-blue berries are firm, delicious and have a good shelf life. Starts to ripen about a week after Elliott and has an extended picking season. Berries get darker with each passing week. Lateral form with slightly spreading branches. Z5. #7429A

Bluejay Early-Mid. 5-7'. MI St U, 1978. Medium-large firm mild-flavored light blue berries with high sugar content. One of the best blueberries for eating, freezing, canning and preserving. Loose clusters are easy to harvest. Productive bush is vigorous and upright, slightly spreading. Disease resistant. Z4. #7431A

Blueray Early-Mid. 4-6'. USDA, NJ, 1955. Large firm dark blue berries of high dessert quality in small clusters. Considered the best-tasting by nearly everyone who grows highbush blueberries. Very vigorous bush with upright spreading habit. Consistently productive. Z4. **#7432A**

Bonus Mid-Late. 5-6'. USDA seedling selected by Dr. Arthur Elliott of Otter Lake, MI. First sold to the public in 1990. Bright blue extra-large Bonus-sized sweet berries on a high-yielding upright bush. Ripens a little after Elizabeth. Good in the home garden and prized by U-pick operations for how fast it fills a quart. Showing good disease resistance. Z4. #**7433A**

NEW! Cara's Choice Early-Mid. 4' USDA, NJ, 2000. Medium-sized firm powder-blue berries are sweet and sweetly scented. Excellent post-harvest color retention makes them popular for markets. Plants contain some genes from V. darrowi, V. constablaei and V. ashei, all native blueberries of smaller stature, some more cold hardy and some more heat tolerant. Spreading form. Z5. #7434A

Chandler Mid-Late. 5-6'. USDA, NJ, 1994. Huge excellent dark blue berries. May be the largest berry on the market. Consistently high-yielding vigorous upright bushes. Extended growing season over 4–5 weeks. Berry size will be smaller during a heavy crop. Z5. **BACK after a long absence!** #7435A

Growing Highbush Blueberries

Soil: Light acid soil with plenty of organic matter. Keep them watered.

Pollination: Two varieties required, three or more recommended.

Spacing: Plant 6' apart (or closer for smaller lowbush-highbush types) in rows 8–10' apart.

Planting: We recommend amending garden soil at planting time with our **Blueberry Booster Fertilizer** (available on our website).

Mulch yearly with at least 3–6" pine needles, wood chips, hay, cardboard, even old slab wood. They don't like grass competition.

Pruning: Fruit is produced on one-year shoots off healthy canes. Older canes become twiggy and less productive. After three years, head back long sprigs of new growth for a bushier plant. Each bush should be allowed to grow 6–10 canes varying in age from 1–6 years old. Thereafter, remove dead canes and those over 6 years old to encourage new replacement canes. Bushes with regular moderate pruning produce the most berries.

NEW! Chanticleer Early. 6'. USDA, NJ, 1997. Mediumsized medium-blue berries are firm, mild and very sweet. Good shelf life, similar to its full sister Sunrise, but not as long-storing as Duke. Upright form. Showed strong resistance to mummyberry blight in its NJ trials. Z5. #7436A

Duke Early. 4-6'. USDA, NJ, 1987. Mediumlarge light blue firm fruit with excellent sweet flavor. Even after temps of –30° the winter of 2019, the branches were still loaded with fruit that summer. One of grower Seth Yentes's favorites in his U-pick. Flavor holds up better than other varieties in the freezer. Long stems and loose clusters. Vigorous upright highyielding bush. Z4. **#7437A**

Elizabeth Mid-Late. 5-6'. Discovered by
Elizabeth White, Whitesbog, NJ, and
released in 1966. Friend and avid fruit
grower Dan K. of Searsmont, ME,
grows 17 different varieties of highbush
and rates Elizabeth and Blueray as his
top favorites. He describes the bushes
as bearing dense clusters of large fruit
with a balanced flavor of sweet and tart.
Stores well in refrigeration. Large vigorous
upright shrub has strong spreading lateral
branches. Z4. #7438A

Jersey Mid-Late. 5-7'. USDA, 1928. The beloved old standard of blueberry introductions to which new varieties are compared. Medium to large dark blue berries in large loose clusters. Vigorous erect hardy bush. Productive, adapted to a wide range of soils, highly praised, easy to grow and suited to the New England climate. Z4.

#7439A

Legacy Mid. 6-8' x 5'. USDA, MD, 1993, selected in 1976. High-quality medium light blue berries are firm, sweet and low in acidity. High yielding. Upright bush has shown some tolerance to clay soils. Z5. #7440A

NEW! Little Giant Mid. 3x3' V. constablaei x V. ashei USDA, MD, 1995. Don't be fooled by the name! The dark-blue berries are petite—sweet and similar to lowbush berries. Moderate yields on an upright form, as wide as it is tall. Developed and selected primarily for its ability to hold up well in processing and freezing. Berries ripen uniformly. Favored for ornamental fall foliage and manageable plant size. Other highbush blueberries will indeed pollinate this one. Z4. #7442A

Patriot Early-Mid. 4'. U Maine, 1976. Partial lowbush parentage. Adaptable to many soil types. Large firm berries with excellent flavor. Productive upright open spreading bush. Tolerant or resistant to some strains of soil fungus. Hardy. Good pollinator for other lowbush-highbush types. Z3. #7443A

Talisman Mid-Late. 5-6'. Blueberry and Cranberry Res Stn, Rutgers, NJ, 2005. Medium-large berries are mild and sweet with low acidity. Best attributes are uniform ripening, heavy yields (around 12 lb per plant) and good resistance to mummyberry. Z4. **#7445A**

Fedco's Blueberry Booster Fertilizer Mix

Our house-blended mix is formulated to bring down the soil pH and provide the nutrients needed for healthy blueberry plants and good fruit. Contains granite meal, sulfur, Tennessee brown rock, Quoddy Blend Compost, and Azomite.

Mix 3# per plant into the soil when planting. As a sidedressing in spring or fall, apply 3# per established plant.

Find it in 3-lb and 30-lb bags at fedcoseeds.com



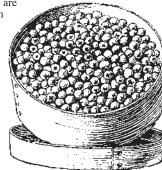
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LOWBUSH BLUEBERRY - \$19.00 EACH

Hybrid Lowbush Blueberries - NEW! Vaccinium corymbosum x angustifolium

For some Mainers, lowbush blueberries are the only blueberry. Though crossed with *V. corymbosum*, these hybrids flirt with groundcover status and ripen in late summer. Plant along borders and walkways, or make nice patch. Plant multiples for best fruit set; will cross-pollinate with all the highbush blueberries. (gallon pot)

NEW! Blue Sunset 4" Selected from a wild stand in Baraga County, Upper Peninsula, MI. Tiny bright blue sweet lowbush-type berries on a rugged Lilliputian plant. Striking fall foliage is orange and yellow. Z3. #7430A



NEW! Little Crisp 8-10" Original cutting from the shores of Lake Superior, Luce Co, Upper Peninsula, MI. Small light blue fruits. Fall foliage is burgundy red. Z3. **#7441A**

NEW! Ruby Carpet 6" Seeds collected in ME; grown out for selection in Grand Junction, MI. Blue-black berries are bursting with lowbush flavor. As the name suggests, plants are striking in their fall foliage. Z3. **#7444A**

Blueberry Collections Overwhelmed by choices? Let us choose for you,

Overwhelmed by choices? Let us choose for you, and you'll save 10% on cost per plant. Collections are not customizable.

NEW! Up High Blueberry Collection
A bundle of 3 different highbush cultivars to to support cross-pollination requirements and span the ripening season. Plants will be individually labeled. All hardy to Z4.

7792A Up High Blueberry Collection, bundle of 3, \$51.50

NEW! Down Low Blueberry Collection
A bundle of 3 different hybrid lowbush cultivars to support cross-pollination requirements. For the diehard lowbush fans out there. You know who you are. Plants will be individually labeled.
All hardy to Z4.

7791Å Down Low Blueberry Collection, bundle of 3, \$51.50

SASKATOONS - \$19.25 EACH

Saskatoons Amelanchier spp.

Also called Juneberry, Parsonberry, Serviceberry, Shadblow, Shadbush and Shad. Purplish-black sweet berries great for pies, cobblers, jellies, jams, smoothies and cakes. Fruits are about the size of a lowbush blueberry, or a bit larger. Botanically speaking, the "berries" are actually tiny pomes, more closely related to apples and pears than blueberries. The seeds are also larger and more noticeable than those of other berries and add a satisfying nutty crunch. Saskatoons are highly nutritional and were traditionally prized by Indigenous North American peoples for their medicinal properties and as a key ingredient in permican. Fruit ripens in mid-July in central Maine.

We've always admired our native Amelanchiers in the wilds of Maine where they grow along stream edges and rocky slopes. (See Allegheny Serviceberry, page 44.) Beautiful fragrant 5-petaled white flowers are early harbingers of spring. Nice red-orange fall foliage. We're learning more about saskatoons farmed commercially for fruit in Canada, much like how we grow highbush blueberries. In Canada there are saskatoon festivals, and even a baseball team, the Saskatoon Berries! (1-3')

Lee #8 6x6' *A. alnifolia.* Thiessen x Northline. Lee Lloyd selection, Barrhead, Alberta. Clusters of medium to large berries are mildly sweet and quite tasty. Large yields on a somewhat upright shrub with loose arching branches. New leaves are very light green and contrast beautifully against the older dark green lower leaves. Crossed between two popular cultivars, used for fruit and market production in Canada. Z3. **ME Grown. #7448A**

Parkhill 5-8' x 5' A. stolonifera x A. a. Bismark, ND, 1974. Dangling clusters of medium-large berries that are mildly sweet with no trace of acid. Hefty fruits showed very minimal cracking in a year with lots of rain. Very uniform ripening pattern. Shrub is somewhat upright with loose arching branches. Will sucker. Resistant to Entomosporium leaf spot. Z3. ME Grown. #7450A

Regent 4-6' x same. A. a. J. Candrian intro, Faribault, MN, 1997. An open-pollinated seedling originating near Regent, ND. Compact prolific shrub with sweet purple-magenta berries. Foliage somewhat susceptible to leaf spot or rust but this doesn't affect fruit. Z2. #7451A



Black Huckleberry Gaylussacia baccata

Cousin of the blueberry. Flowers in June and fruits in August. Nectar of the pink bell-shaped blossoms helps sustain the endangered adult Karner Blue butterfly and native bumblebees. Brilliant purple-red fall foliage. We've found many quiet little shrubs tucked in along pond edges and uplands woods, and also in great swaths among the sheep laurel and the lowbush blueberries of coastal Maine. Native to eastern U.S. and Canada.

Michigan 1-3' x 2-4' Hartmann's Plant Co intro, found growing in Allegan County, MI, among some lowbush blueberries. Shiny black huckleberries are mildly sweet with the slightest crunch from tiny seeds. Delicious fresh or in desserts. Forms colonies but does so very slowly. Plant multiples for a nice hedge. Z3/4. (gallon pot, 15-20")

7446A Michigan Black Huckleberry, \$19.75



variety for better yields.

Spacing: 5' apart.

Growing Lowbush Blueberries and Huckleberries

Soil: Light acidic well-drained soil. Drought tolerant once established. **Sun:** Best fruit set in full sun.

Pollination: Both are generally self-pollinating, but planting multiples will enhance fruit production.

Lowbush hybrids will cross-pollinate with highbush varieties.

Spacing:

Space lowbush blueberries 12" apart and cultivate as a groundcover. Space huckleberries 3–4' apart for a nice hedge.

ELDERBERRY PLANTS - \$22.00 EACH

Elderberries Sambucus spp.

Elderberry trees appear in myths from days of yore, thought to possess magical and protective powers. Dangling clusters of edible purple-black berries ripen in late summer on this broad vigorous multi-stemmed shrub. The fruit is highly nutritious and medicinal. A century ago, every grandmother knew how to make the perfect elderberry pie. Recipes for jam could be found in all the old farm cookbooks. Elderberries have made a big comeback as folks rediscover the scrumptiousness of elderberry jelly, cordial, elixir and wine. The large creamy-white flower clusters,

or cymes, that cover the shrub in early summer make delicious fritters. Dry them for a fragrant wintertime cold-and-flu remedy tea. For centuries, humans have used this plant's medicinal qualities to treat a wide range of ailments and to boost the immune system. Hippocrates is said to have called the elder tree his "medicine chest." Birds love the fruit, and the blossoms attract beneficial insects and pollinators.

ract beneficial insects and pollinators. No serious pest or disease issues. (1-3' shrubs)

American Black Elderberry S. canadensis

This species is native to North America. Hardier than the European *Sambucus nigra*, and fruits on first-year wood.

Adams No. 1 6-12' x same. NY Stn intro, 1926. Selected in 1915 from the wild by William Adams in Union Springs, NY, and sent to Geneva where it was introduced 11 years later. Large berries and fruit clusters make for easy and fast picking. If you're heading to a potluck and need to make a pie in a pinch, Adams is the shrub you want. Very large vigorous strong productive bush. Z3. **ME Grown. #7453A**

Bob Gordon 6-8' x same. MU intro, 2011. Wild seedling selected by Robert Gordon in Osceola, MO. Large clusters of large dark berries. High Brix levels makes this elderberry a good one for winemakers. Upright slightly spreading habit. Z4. ME Grown. #7454A

Goodbarn 5-10' x same. Chance seedling. Elwyn Meader intro, Rochester, NH. Professor Meader named this Goodbarn because it was the good elderberry growing under the eaves of his barn in New Hampshire. Another of the many fine plants Elwyn's son John has brought to our attention. Thanks, John! Hardy, vigorous with apparent self-fertility. It blooms heavily and produces large crops annually. Z3. **ME Grown. #7456A**

Johns 8-10' x same. Adams No. 1 or Adams No. 2 x open-pollinated. Nova Scotia Exp Stn, 1954. Very vigorous. One particular cutting in our garden grew 5' in one season and had berries and flowers at the same time late into the summer. Z3. **ME Grown. #7457A**

Mattawamkeag 6-12' x same. Fedco intro, 2014. Originally selected and propagated by Sue Szwed and Mitch Lansky of Wytopitlock, ME. Sourced from a wide swath of plants growing in Aroostook County between Wytopitlock and Bancroft near the Mattawamkeag River. Robust plants with consistently high fruit yields. Z3. **ME Grown.** #7458A

Nova 6-8' x same. Open-pollinated seedling of Adams No. 2. EL Eaton intro, Kentville, Nova Scotia, 1959. Selected in 1946 and named for its province of origin. Large sweet fruit matures early and uniformly. Suckers easily. Z3. ME Grown. #7460A

Wyldewood 6-12' x same. Selected from wild bushes in 1995, introduced in 2010, MU/MSU, by PL Byers and AL Thomas. A consistently high-yielding elderberry cultivar, popular in the Midwest. Some trials are showing it produces as much as Adams, if not more, and ripens a little bit later. Vigorous! Give it lots of room or whack it back. Z3. ME Grown. #7461A

York 4-10' x same. Ezyoff x Adams No. 2. NY Stn, 1964. An old reliable, considered by some to be the largest-fruited and heaviest-bearing cultivar. In most of our Maine trials, this shrub is more compact than Adams, topping out at 4–5', but we've seen a 10' specimen growing on a compost pile. Persistent and will bear well for many years alongside other varieties. Heavy clusters of mildly tart large berries that ripen after Adams. Z3. ME Grown. #7462A

American Elderberry Seedling Each one is grown from cold-hardy seed and will be a totally unique plant. Some of our best plants grew from batches of such seedlings. Z3. ME Grown.

7455A Elderberry Seedling, \$22.00 **7455B** Elderberry Seedlings, bundle of 5, \$99.00

European Elderberry S. nigra

This species is native to Europe. The medicinal berries are extremely high in immune-boosting anthocyanins. You can use them in all of the same wonderful ways you would use the *canadensis* species. More tender than *canadensis*, but ours in Zone 4 seem to be almost as hardy. Note that *nigras* produce on second-year wood—prune accordingly.

Korsor 6-8' x 2-5' Danish cultivar bred for heavy fruit clusters and excellent juicing quality. Leaves are broader and darker green than other elderberries and the plant gives off a musky scent when you brush past it. Upright habit, extremely vigorous. Z4/5. **ME Grown.** #7463A

Marge 4-6' x 4-5' An open-pollinated seedling of Haschburg, one of the most popular commercial varieties in Europe. A heavy-yielding *nigra* with extreme vigor, hardiness and pest resistance. Upright and nonsuckering. Named after Marge Millican of Wyldewood Cellars Winery, Mulvane, KS, also responsible for giving us the cultivar Wyldewood. Z4. **ME Grown.** #7464A

Samyl 5-8' x 2-5' Res Ctr for Hort intro, Aarslev, Denmark. Selected for juice production based on very high anthocyanin content and sweet flavor. Strong upright shoots yield dark glossy berries. Z4/5. **ME Grown.** #**7465A**

Elderberry Collection

NEW! Respect Your Elders Collection A bundle of 5 different *S. canadensis* cultivars to start an elderberry orchard or hedgerow for you and your winged friends. Plant a lot, and share what you've got! With this collection, you'll save 10% on cost per plant. Plants will be individually labeled. All hardy to Z4 and ME Grown.

7800A Respect Your Elders Collection, 5 plants, \$99.00



Growing Elderberries

Soil: Adaptable and low maintenance, but prefers moist fertile soil. Can tolerate drier soil, poor drainage and even temporary flooding.

Sun: Full, but will tolerate some shade.

Pollination: Self-fruitful, but plant more than one variety for better yields. *Canadensis* and *nigra* species will pollinate each other.

Spacing: 6-8' apart.

Planting: Add plenty of compost to the planting hole; sidedress with compost every spring. Mulch with a thick layer of hay, leaves or wood chips to control weeds and protect shallow roots. Do not invite the elderberry borer by allowing sod to grow at the base of the plant!

Pruning

- S. canadensis: Fruit on both new and old canes, with best sets on one- and two-year canes. In spring when plant is still dormant, prune out broken or dead canes, and periodically cut out the oldest wood. New canes will emerge. You may treat them like perennials and cut them to the ground each spring, and they will re-sprout that year.
- S. nigra: These fruit on second-year wood. It's ok to prune in spring, but be sure to leave first-year canes for the next season's yield.

STRAWBERRY PLANTS - BUNDLE OF 50 FOR \$30.00

Strawberries Fragaria x ananassa

A major highlight of every summer is picking strawberries. In central Maine strawberry season is usually around summer solstice.

Modern strawberries, developed about 1830, are a hybrid of *F. chiloensis* (native of Chile) and *F. virginiana* (native of North America). Royce Bringhurst of UC-Davis developed everbearing strawberries from wild plants found in Utah's Wasatch Mountains. He crossed these with modern varieties and introduced the first everbearers in 1980.

50 plants will plant from 50–100'. (virus-free bare-root crowns)

EVERBEARING STRAWBERRIES

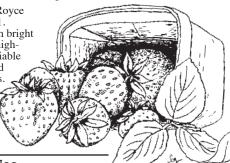
Everbearing, or day-neutral, strawberries flower regardless of day length as long as temperatures are between 35 and 85°, and produce fruit from June to October. They are uncommonly productive—about 1 lb of fruit per plant the first year, and slightly less the second year. Productivity peaks in August the first year. The second year, berry size decreases in the hottest weather and increases in cooler weather. After second year, turn under and start again.

Albion UC-Davis, 2006. Everbearing strawberry with very large conical firm fruit, excellent flavor and good shelf life. High yielding. "Albion is definitely no slouch for flavor," reported former Fedco staffer Alice. "It continues to bear reliably and produce large delicious berries in hot weather." Plants are large and need extra space to produce bigger berries. Resistant to verticillium wilt, phytophthora crown rot, and anthracnose crown rot. Z4. **#L7466A**

Evie 2 An "improved" everbearing variety from Edward Vinson Ltd, Kent, England, 2006. One of the most productive and easy-to-grow cultivars of the day-neutral strawberries. With ideal conditions each plant can produce more than a quart throughout the growing season. Glossy red berries are full of flavor and maintain good size. Less sensitive to warmer temperatures that often bring day-neutrals to a halt. Z4. **#L7467A**

Mara des Bois Hybridized by Jacques Marionett, Soings-en-Sologne, France, 1991. Everbearing strawberry claimed to be the most flavorful and fragrant of the day-neutrals, often referred to as "gourmet." Berries are high in methyl anthranilate, the volatile compound that gives them their strong fragrance. Commercially grown in France where they are sold at a premium. Shorter shelf life makes them better suited for local markets. Plants bear medium-small glossy red berries prolifically from summer into fall the first year. Second year bears a heavy spring crop with continuously ripening berries throughout the summer. Z4. #L7468A

Seascape Developed by Royce Bringhurst, UC-Davis, 1991. Everbearing strawberry with bright red medium-to-long conic high-yielding firm productive reliable fruit. Excellent flavor. Broad resistance to fungal diseases. Somewhat susceptible to common leaf spot and two-spotted spider mite. Very hardy. Z4. #L7469A



Growing Strawberries

Soil: Well-drained and fertile. Avoid planting sites where tomatoes, peppers or potatoes have grown in the past 4 years.

Sun: Full

Pollination: You need only one variety.

Planting and Spacing: Choose a site with good air flow. Plant at the same depth as they were in the nursery, with the middle of the crown at soil level. To optimize plant survival, plant crowns on cloudy days or in the evening. Soak roots in fish/kelp emulsion to lessen transplant shock.

- For Everbearing or Day-Neutral Strawberries: These heavy feeders benefit from 3–4" of manure worked into the soil prior to planting. Plant 6–12" apart. Remove flowers for the first 6 weeks, and remove all runners the first season. After harvest the second year, turn under and start again.
- For June-Bearing Strawberries: Use Matted Row system: Set plants 12–24" apart in rows 3' apart. Allow plants to produce runners freely and fill in the row. Remove all flowers the first year.

Harvest berries the second year, and immediately after harvest, fertilize liberally with compost or aged manure and renovate the row. By hand or with a tiller, narrow the row to 12" wide. Thin plants to 4–5" apart within the row. By this method a bed can last about 5 years.

Mulching: In late fall mulch with hay to protect plants over winter. In spring pull mulch off plants and place between rows to keep fruit dry and clean in summer. Floating row cover may be used for frost protection.

JUNE-BEARING STRAWBERRIES

When cultivated as described in sidebar below, June-bearing plants begin bearing their second year and can produce for up to 5 years.

AC Valley Sunset Late. Bred and selected by Andrew Jamieson, Kentville, Nova Scotia, 1999. If you ever find yourself in South China, ME, in late June, stop by the farmstand at Full Fork Farm for AC Valley Sunsets at their peak, so sweet and juicy you're sure to ruin your shirt! These bright red firm shiny berries are so big you could make a hand pie with just one. Resistant to leaf diseases. Z4. #L7470A

Cavendish Early-Mid. Canada Res Stn intro, Nova Scotia, 1990. Medium-large fruit, glossy deep red skin with firm flesh that is almost entirely red. Berries ripen with some white around the stem so don't be deceived: they might be ripe before they look it. Sweet melon-like flavor, less tart than Honeoye and ripens around the same time. Highly productive yields continue over a long season and have proven reliable even when other varieties don't come through. Sand Hill Farm grower Benji Knisley's favorite variety for making jam. Very hardy and climate adaptable. Resistant to red stele, powdery mildew and verticillium wilt. Z3. #L7472A

Earliglow Early. MD Ag Exp Stn, 1966. Medium-sized berries, best for fresh eating and freezing. Excellent flavor for an early berry. A favorite at Sand Hill Farm in Somerville, ME. Resistant to red stele and verticillium wilt. Hardy, but considerably more productive in southern New England than up north. Z3. #L7471A

Honeoye Early-Mid. NY Stn, 1979. We had been pronouncing it *honey-eye*, but longtime customer Clara M. from Honeoye Falls, NY, set us straight: she and her neighbors say *honey-oy*!

Tough, hardy, vigorous, extremely productive and easy to grow. The freezer-filler of the strawberry patch. Produces large conic bright red fruit over a long fruiting season. Firm flesh with tart—and surprisingly good—flavor. Excellent freezing quality. Probably the most popular commercial berry in the Northeast. Susceptible to verticillium wilt. Z3/4. #L7473A

Jewel Mid. NY Stn, 1985. Shaun Keenan of Sand Hill Farm suggested we add Jewel to our list; he even went so far as to say that Jewel tastes almost as good as Sparkle. Although we don't think we'd go quite that far, we were very impressed with the berry. Large shiny red perfectly shaped fruit is firm, sweet and slightly aromatic. Unlike Sparkle, Earliglow and many other varieties, Jewel keeps its size all season. Extremely popular with commercial growers and Gene's favorite. Good freezing quality. Low incidence of fruit rots and foliar diseases. Not resistant to verticillium or red stele. Z4. **#L7474A**

Sparkle Mid-Late. NJ Ag Exp Stn, 1942. We've yet to taste a strawberry that comes even remotely close to Sparkle. They possess a flavor that can only be described as the essence of strawberry. The best in an early year, the best in a late year, the best this year, last year, every year. Soft small-to-medium berries make delicious fresh eating and are also excellent for jams and freezing. One of its few drawbacks is that it tends to lose color in the freezer. Moderate crop yields. Resistant to most strains of red stele. Blooms late, rarely affected by spring frost. Z3. **#L7475A**

Strawberry Collection

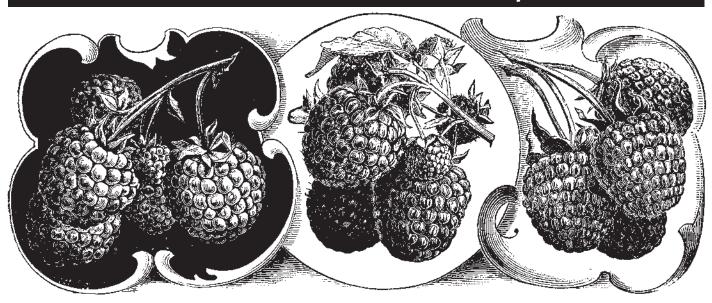
NEW! Strawberry Jam Collection

Includes 4 different June-bearing cultivars, 25 of each for a total of 100 crowns. Collection will span the ripening season to extend your harvest window and your jammaking party. With this collection, you'll save 10% on cost per plant. Cultivars will be individually labeled. All hardy to Z4.

7806A Strawberry Jam Collection, bundle of 100 crowns, \$54.00



RASPBERRY CANES - BUNDLE OF 5 FOR \$27.00



Raspberries Rubus spp.

We love raspberries: fresh or frozen, in smoothies, jam and especially pie. We even like the foliage—best taken from the first-year primocanes—which makes a delicious astringent healthful tea. Raspberry leaf and fruit vinegar is very high in minerals. The root bark is also medicinal.

Raspberry season in Maine is mid-July through fall. Native to North America, Europe and Asia, they are usually identified as *R. idaeus* or *R. i.* var. *strigosus*. 53 different *Rubus* species and subspecies live in Maine.

Please note: Raspberries have very fine, fibrous roots. Often they do not sprout from the plant stem after planting. This is normal. Be patient! Keep them well watered and they should all break dormancy, sprout from the roots and thrive for many years to come. (bare-root canes)

EVERBEARING RASPBERRIES

Everbearing raspberries bear on first-year canes (primocanes). Particularly desirable for northern growers because they can die (or be cut) to the ground and still produce a sizable crop the following year. In central Maine the first of these ripens in mid-late August and the latest can go through September.

Anne Late. U of MD, 1998. Everbearing sweet flavorful **pale yellow** raspberry ripens in fall. Large cohesive conic fruit stores decently and is firmer than other yellows. Semi-vertical canes may sucker less than most everbearing types. Cut it entirely to the ground after the season is over. Resistant to phytophthora root rot. Z4. **#7476A**

August Red Late. Developed by EM Meader, UNH, 1973. Considered the hardiest of the everbearing types—the last hope when no other raspberry will survive. Medium-large crimson fruit has excellent flavor. Compact 3' bush bears earlier than other everbearers, even Polana. Productive midsummer, about Aug. 10 in central Maine. We are very pleased to offer this rare variety. Z3. **ME Grown. #7477A**

NEW! Caroline Mid. JA Fiola intro, Rutgers, NJ, 1999. Large red firm flavorful berries with a long harvest window. An everbearing with consistently high yields. Z4. **#7478A**

NEW! **Double Gold** Mid-Late. Cornell, 2012. Golden-blushed **coral-colored** medium-sized conical berries turn pink when frozen. Vigorous everbearing plant produces multiple hardy shoots. Z4. **#7479A**

Joan J Late. Dark red medium-large berries of very good quality are firm, holding up well in the quart without slouching. Thornless (!) moderately vigorous canes. An early fall bearer, ripening about a week later than Polana. Notably good heat tolerance. Z4. **#7480A**

Polana Late. Res Inst of Pomology and Floriculture, Brzezna, Poland, 1991. Large firm red berries with very good flavor on vigorous and productive short canes. Early for an everbearing variety. In northern districts, it ripens in late August or September and has performed well in our Fedco trials. According to David Handley of UMaine, "as near a thing to a sure bet." Easy to pick: the berries hang off the tops of the plants. Suckers freely. Z4. #7481A

SUMMER-BEARING RASPBERRIES

Summer-bearing raspberries bear on second-year canes (floricanes). Midseason berries ripen around late July in central Maine.

Boyne Early-Mid. Morden Stn, Manitoba, Canada, 1960. Round-conic medium-sized berries with an intense deep dark almost purple color. Strong aromatic tart raspberry flavor and a perfect medium-soft texture. Grower John Meader speaks glowingly of Boyne, calling it "an excellent, excellent variety. Boyne is the one to beat if you're going to introduce a new raspberry." Leaves tend to curl down over the fruit making it harder to pick if you're in a hurry. According to friends who make honey and fruit butters, there is no better raspberry for processing. Disease resistant. Extremely hardy. Z3. **#7482A**

Encore Late. Cornell Small Fruit Breeding Program, Geneva, NY, 1980. Large red berries of good quality on highly vigorous sturdy canes. One of the most popular raspberries among home gardeners for being *nearly* thornless and for ripening late in the season. Stores well in the freezer. Z4. #7483A

Killarney Early-Mid. Morden Stn, Manitoba, Canada, 1961. Produces medium to large round crumbly fruit of excellent quality over a long season. Deep red summer-bearing cultivar ripens after Prelude and before Nova. Same parentage as Boyne but firmer texture and brighter color. Sturdy 4' canes. Hardy, and yields consistently. Z4. **#7484A**

Latham Mid. U Minn, 1920. A standard raspberry for more than a century, extremely popular and widely grown. Large bright red 1" fruit is roundish, firm, a little crumbly and sprightly sweet, full-flavored and aromatic. Great for fresh eating, canning, freezing, jam, juice or pie. Ripens over an extended season making it an ideal candidate for the home garden. Canes are 4–5' tall and highly productive. Not as spiny as most raspberries. Widely adaptable and very winter hardy. Disease resistant. Z3. #7485A

Nova Mid. Kentville, Nova Scotia, Canada, 1981. In our trials Nova appears as hardy, if not hardier, than Boyne and on par in fruit

quality, too. Medium-sized firm somewhat acid bright red fruit. Upright productive minimally spiny canes produce long fruiting laterals that make berries easy to pick. Z3. #7486A

Prelude Early. NY Stn, 1998. Ripens very early and produces a second small crop in the fall, just when we start to miss raspberries. Very large red conic high-quality firm fruit is tasty and mild with little acidity. Vigorous winter-hardy canes. After several years of trial in his nursery, grower emeritus John Meader wrote, "I'd strongly recommend Prelude. It showed hardiness equal to Boyne last winter and fruits the earliest of all varieties I've observed." Z4.

#7487A

OTHER CANE FRUITS BUNDLE OF 5 FOR \$38.00

Purple Raspberry Summer-bearing on second-year canes.

Royalty Purple Midseason. NY Stn, 1982. Their distinctive flavor is different from the red raspberries, with a hint of black raspberry. A favorite for fresh eating among those who know it. Cohesive fairly firm large berries make outstanding jam and jelly, too. Extremely robust minimally suckering plants are very productive and open-formed; the berries are eye-level and easy to pick. Ready to harvest when they are deep purple, somewhat later than the reds. Plant in hills like blackberries. Disease resistant. Occasional slight tip dieback in Zone 3. Z3/4. (plugs) #7488A

Blackberry Summer-bearing on second-year canes. Nelson Midsummer. Nelson has been surviving Maine winters for at least a century. Introduced to us by the descendants of Nelson Fronk, whose 1928 family photograph taken on their farm northeast of Farmington shows the blackberries growing by the barn. John Meader calls it "exceptionally hardy," one of the most enduring blackberries he knows. Tall sturdy upright inch-thick canes can be grown on posts or free standing. Fruit is moderately large and quite juicy with true blackberry taste. Highly productive with 16–18 blossoms on the central stalk—the most we've seen on any blackberry. Four good pickings over two weeks in mid-August. Excellent jelly and good fresh eating. Disease resistant. Like all blackberries, quickly so give it room. Z3/4. (plugs) #7494A

Black Raspberries

Black raspberries bear on second-year canes (except for everbearing Niwot, which bears on first-year canes). Also called black caps. Contain high levels of antioxidants and anthocyanins, strengthening the immune system when eaten regularly. Freeze excess berries for winter to help combat colds and flu. (plugs)

Bristol Midsummer. NY Stn intro, Geneva, NY, 1934. Medium-large firm glossy black fruit with excellent sweet blackberry-like flavor very distinct from reds. Hardy, vigorous and high-yielding. They ripen earlier in central Maine than most raspberries. Tolerant of powdery mildew. Z4. #7489A

Jewel Midsummer. Cornell, Geneva, NY, 1973. High-yielding variety with superb quality and flavor. Glossy large firm juicy fruit with rich sweet lingering flavor. Larger than Bristol. Excellent choice for fresh eating, jams and jellies. Cohesive texture holds shape with refrigeration. Vigorous disease-resistant canes. Z4. #**7490A**

Mac Late. Bred by Canadian bramble breeder Ed Lowden of Ontario. Makielski's Berry Farm intro, MI. Among the latest of the black raspberries, Mac is a season extender that ripens about a week or more after Jewel. Medium-large flavorful juicy berries have a firm cohesive texture. Upright productive canes benefit from trellising. May produce September fruit at the tips of unpruned firstyear canes in warmer areas. Z4/5. #7491A

NEW! **Niwot Everbearing** Early. P. Tallman intro, Longmont, CO, 2014. An **everbearing** black raspberry making its first appearance in our catalog and trial orchards! Highly productive shiny berries with mildly sweet flavor. First crop ripens one week before Jewel on first year canes. Will crop again in the fall once it's well established. Z5. #7492A

Tahi Early-Midsummer. Shekinah Berry, Auckland, New Zealand. The first ever thornless black raspberry available to home gardeners! Deep black large berries are moderately firm and tightly clustered. Vigorous upright canes. In Māori, tahi means 'number one.' Z5. #7493A

Cane Fruit Collections

Overwhelmed by choices? Let us choose for you, and you'll save 10% on cost per plant. Collections are not customizable.

NEW! Everbearing Raspberry Collection Includes 4 different cultivars, 5 of each for a total of 20 canes. Fill the freezer with this one! Everbearing raspberries ripen late summer. They fruit on first-year canes, so you can cut them to the ground each winter. Cultivars will be individually labeled. All hardy to Z4.

7802A Everbearing Raspberry Collection, bundle of 20, \$97.25

NEW! Summer-Bearing Raspberry Collection Includes 4 different cultivars, 5 of each for a total of 20 canes. Collection will span the ripening season to extend your harvest. Summer-bearing raspeberries fruit on second-year canes. Cultivars will be individually labeled. All hardy to Z4.

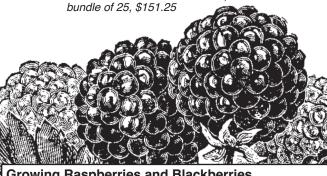
7803A Summer-Bearing Raspberry Collection, bundle of 20, \$97.25

NEW! Black Raspberry Collection Includes 4 different cultivars, 5 of each for a total of 20 canes. We are wild about black caps. Join the craze! These all fruit on second-year canes. Cultivars will be individually labeled. All hardy to Z5.

7801A Black Raspberry Collection, bundle of 20, \$137.00

NEW! Shirt-Stainer Cane Fruit Collection Includes 5 different cultivars, 5 of each for a total of 25 canes. Berries galore! Collection contains one summer-bearing red raspberry, one everbearing yellow raspberry, one purple raspberry, one black raspberry, and one blackberry. Cultivars will be individually labeled. All hardy to Z4.

7804A Shirt-Stainer Cane Fruit Collection,



Growing Raspberries and Blackberries

Soil: Well-drained soil rich in organic matter. Avoid planting sites where tomatoes, peppers, potatoes, strawberries or wild brambles have grown. For every 100 row feet, fertilize each spring with up to 100 lb manure or compost (or 8 lb blood meal or 14 lb soybean meal).

Sun: Full.

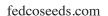
Pollination: You need only one variety.

Planting: Prepare holes wide enough to spread out roots. Don't let roots dry out—consider soaking roots in Agri-gel (available on our website) for 1–2 hours before planting. Add plenty of compost. Plant canes 1–2" deeper than the nursery line. Mulch with a thick layer of wood chips. Plants require 2" water per week during growing season.

- Everbearing raspberries: Plant 9-15" apart.
- Summer-bearing raspberries: Space 2' apart. To trellis, run a wire on either side of the 18–36" bed, with wires 3–4" high to support the tall canes.
- Purple and black raspberries and blackberries: Plant in hills 3-4' apart, 3-4 plants per hill. Tie to a center post if needed.

Pruning Raspberries and Blackberries:

- Everbearing raspberries: Cut all the canes to the ground in late fall or early spring. New first-year canes will fruit in mid-late summer. (In warmer districts, you can leave old canes, which could fruit lightly the following year.)
- Summer-bearing raspberries: In fall or early spring, prune out the canes that last carried fruit (they will be the branchy ones). Thin the fresh first-year canes to about 3–4" apart. During the growing season cut back canes to 5' if they are bending over severely.
- Purple and black raspberries and blackberries: In spring, thin to 5-8 canes per hill. In early summer, pinch back tip of first-year canes to 21/2-3' tall. This will encourage lateral fruiting branches. You may run a wire between hills for lateral branching but this is not necessary. The following spring, cut these fruiting laterals back to 8-12 buds.



GRAPE VINES - \$18.00 EACH



Grapes Vitis spp.
Grapes are easy to grow and can bear plentifully even in northern New England. They begin fruiting in the second or third year after planting. They are rugged and cold hardy. Our vines bear consistently every year. Although many people prefer seedless types for table use, seeded varieties can be quite enjoyable right off the vine if you don't mind "grape nuts. Grape seeds contain an antioxidant that is twice as powerful as vitamin C.

Most grape varieties are bred from a combination of different species, V. labrusca and V. vinifera being the most important. Labrusca is native to the eastern U.S., has a wild tart musky (foxy) flavor, and is hardy and disease resistant. Concord is the best-known of the labruscas. Vinifera, native to Europe, is extremely high quality, and is the most important wine grape in the world, but is not cold hardy and is prone to disease. V. riparia, native to North America, used as rootstock for grafted varieties and in hybridization with vinifera, is very adaptable to a wide range of soils, disease resistant and very cold hardy.

In central Maine, "very early" grapes begin ripening in mid-August, while "midseason" ripen mid-September. Late-season Concord, a standard elsewhere, does not ripen in many northern areas. (well-rooted vines)

Growing Grapes

Soil: Very well drained with moderate fertility. Every few years, fertilize liberally with granite meal. Mulch annually with hay or straw.

Pollination: Self-pollinating; you need only one for fruit.

Spacing: 8–12' apart in rows 8–12' apart.

Planting: Spread roots out in hole, planting the crown even with the soil surface. Pack soil, water and mulch well. After frost danger has passed, prune new vine back to 3-5 strong buds.

Pruning and Trellising: There are many systems for training grapes. and all involve annual pruning to remove most growth in late spring. This aggressive pruning encourages new fruiting canes. See next page for a few methods, or go to umaine.edu/highmoor/ and click on "videos

The current vineyard standard for wire is high-tensile-strength class III galvanized steel. The gauge should be 11 to 12.5. The wire is generally sold by weight. 100 lb of 11 gauge measures about 2600'. 100 lb of 12.5 measures

Optional Winter Protection:

If a variety is marginally hardy in your area, you can still grow it if you take special care in winter. Remove the vine from the trellis in fall, lay it on the ground, and bury with just enough soil to cover.

If you plan to do this, plant your new grapevine at a 45° angle. Train new shoots horizontally for at least one foot. Then, curve shoots upward to form a J shape. This creates a flexible hinge, allowing you to lay the vine down at the end of the season.

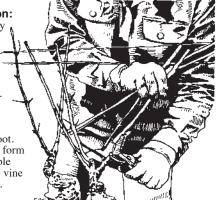


TABLE GRAPES

Bluebell Mid. Developed by JM Dorsey, U Minn, 1944. Our most popular seeded grape; it does everything well. Delicious flavor makes them excellent for fresh eating, jelly and juice. Clusters of mediumsized dark berries with a heavy blue bloom. Extremely hardy, to -30°, labrusca-type ripens 2-3 weeks earlier than Concord. While it ripens beautifully from central Maine south, it may not have time to ripen in some northernmost locales. Strong, productive, vigorous—but not rampant—vine. A joy to grow. Immune to most or all fungal diseases. Z3/4. #**7495A**

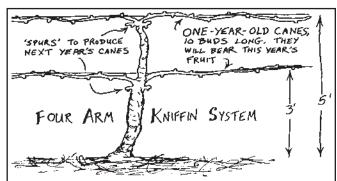
Brianna Early-Mid. IA St U, 2001. Bred by Elmer Swenson in WI, selected in 1989. High-quality white wine grape that is also great for fresh eating. Medium-large round thick-skinned gold berries in mediumsmall tight clusters. As a wine grape, imparts pineapple and grapefruit flavors with very floral characteristics. French-American hybrid including V. labrusca and V. riparia. Vigorous vines are easy to manage. Z3/4. #**7496A**

Mars Seedless Very Early. U of AR, 1984. Large seedless blue berries good for fresh eating, juice or raisins. Typical labrusca foxiness of Concord-like grapes. Big orbs, though might not accommodate a Rover. Thick slipskins are resistant to cracking and one of the best for disease resistance, performing well during hot wet summers. Very vigorous vine showed hardiness after -20°. Z5, but definitely worth trialing in Z4. #7499A

Reliance Seedless Very Early. AR Stn, 1982. Medium-sized berries are good for fresh eating or juice. Large loose clusters of tender melting sweet pinkish-red fruit with a strawberry-like flavor. Stores well in a root cellar for 1-2 months. Seems hardy although it has shown significant dieback in our Zone 4 trials. You may need to lay vines down for the winter in colder areas (see sidebar). While the literature cautions about Reliance's disease susceptibility, our vines have performed well and remained free of disease. Z4/5. #7501A

Somerset Seedless Early. Elmer Swenson intro. Somerset is likely one of the hardiest seedless dessert grapes available today. One of the last Swenson introductions before the renowned and beloved grape breeder passed away in December 2004. Medium-sized loose clusters with small sweet ruddy reddish-golden fruit. Crispy texture and great flavor. Easy to grow but not overly vigorous. Z4. #7502A

Vanessa Seedless Mid. Introduced by KH Fisher and OA Bradt, Vineland Stn, Ontario, 1983. Large bright firm seedless deep red grapes with a fruity flavor make the absolute best raisins we've ever eaten. Excellent fresh eating. Medium-sized well-filled clusters on vigorous vines. Ours had some dieback at -20° but they all re-sprouted from the base and grew back to where they left off the previous summer. Going strong in our central Maine vineyards. Z4/5. #7503A



Training Grapes in the Four-Arm Kniffin System First year: After the danger of frost has passed, cut newly planted vines

back to a single stem, 6" long with two to three buds.

Second year: Set up two wires, 3' and 5' high, stretched between posts. Cut plant back to a single stem, 6 feet long and tie it to the top wire. Leave 4–6 buds near each wire and remove others.

Third year: Select 8 canes, 4 for each wire, and remove the rest. Tie two canes to each wire, one in each direction. Cut these 4 canes back to 10 buds each. Cut the remaining 4 canes back to 1-2 buds each.

Later years: In late spring, remove last year's fruiting canes. Select eight new canes. Cut 4 of them to 10 buds each, and tie them to your wires. Cut the remaining 4 back to 2 buds each. These will produce next year's fruiting canes. Remove all other canes. The number of buds left on the fruiting canes may be adjusted to encourage more fruit (leave more buds) or larger size (leave fewer buds).

GRAPE VINES - \$18.00 EACH

WINE GRAPES

Frontenac Mid-Late. U Minn, 1996. A highly praised cold-hardy red-wine grape, also ex cellent for fresh eating. Recommended for dry full-bodied Merlot- or Bordeaux-style table wines, rosés and ports. Very large loose clusters of small berries. Intense juice color, low tannins, high sugar and high acid content. In a newsletter from the Minnesota Grape Growers Association, John Marshall said, "Though the sugar may rise to impressive levels early in September, the grapes are not nearly ripe. Ignore the sugar levels and wait until September 20. The acid will drop and the wonderful black-cherry flavors that will make this grape famous will multiply." Vigorous productive disease-resistant vines. Z4/5. BACK after a long absence! #7497A

Marquette Mid-Late. U Minn, 2006. An exciting grape for northern winemakers. The best variety this side of the Atlantic for a Pinot Noir–style red wine. One parent, MN 1094, has both *V. riparia*

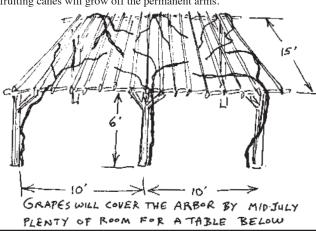
and *V. vinifera* in its background. The other, Rivat 262, is a French hybrid with Pinot Noir as one of its parents. Not only is Marquette heavy with *vinifera*, the vines are also extremely cold hardy. And there's more: sugar levels are high—in the range of 26.1 Brix—and the acid levels are lower than Frontenac. Substantial tannins add complexity. Small-medium bluish-black berries in small to medium-sized clusters. Ripens a few days before Frontenac. **PPA.** Z3. #7498A

Prairie Star Mid. Swenson intro, U Minn, 2000. Long slightly loose clusters of medium-sized lush white fruit. Excellent sugar content and acidity for winemaking. Makes a nice classy varietal with no foxy flavor but also can be added to enhance other more neutral wines. Tom Plocher and Bob Parke reported in *Notes from the North* that the wine has a "fullness in the mouth and finish that is uncommon among hybrids... In some years it develops a delicate floral nose that allows it to stand as a single variety wine. In most years however, Prairie Star is an ideal blending component to add body and finish to thin white wines." Moderate disease resistance. Extremely hardy to -40° . Z3. **BACK after a long absence!** #7500A

NEW! Verona Late. Plocher Vines, Hugo, MN, 2015. Rare in the trade and making its first appearance here! Large compact clusters of blue grapes are prized for full-bodied dry red wines and rosés. Low acid, high tannins, with tones of raspberry and chocolate. (19-22 Brix, 3.38 pH, 8.0 g/l TA) Ripens after Frontenac and Petit Pearl. Good resistance to downy mildew, powdery mildew and black rot. Vigorous grower. Cold hardy to at least –25°. Z4. #7504A

Training Grapes on an Arbor

Train one or more vines onto an arbor or gazebo; we have 8 vines, spaced about 10' apart. Prune each vine back to a single trunk. Encourage several permanent arms from each trunk. In late spring remove 70-90% of the past summer's growth. Next summer new fruiting canes will grow off the permanent arms.



Other Vines

Lonicera x brownii 'Dropmore Scarlet' Brown's Honeysuckle 10-20' long.

(*L. sempervirens* x *L. hirsuta*) Tall climbing (non-invasive!) honeysuckle developed by FL Skinner in Manitoba. Jazzy whimsical whorled clusters of 1¹/₂" scarlet-orange tubular flowers bloom profusely and tirelessly from early summer into late fall.

Attracts butterflies and bees but especially loved by our ruby-throated hummingbird. Striking bluegreen foliage is perfoliate, appearing as if the red stems

were growing through a single cupped disk. Finely shredded peeling bark makes an interesting winter display. Great for fence or arbor or cut back like a perennial for a low rangy mound in the garden. Easy to grow, generally free of problems, though susceptible to aphids. Flowers the first year. Likes average well-drained soil and full sun. Both parent species native to North America. Z3. (well-rooted vines)

7508A Dropmore Scarlet Brown's Honeysuckle, \$19.50

HOPS - BUNDLE OF 3 FOR \$21.25

Hops Humulus Iupulus

Up to 20-30' long. Beautiful twining vine covers a trellis, archway or the entire side of a barn. Our favorite live awning to shade out the summer sun. Green lobed leaves, bristly stems, and insignificant greenish flowers, followed in late summer by the hops: papery aromatic cone-like strobiles used medicinally and in brewing for more than 1000 years. Herbalist John Christopher recommended the strobile tea as "a powerful, stimulating and relaxing nerve tonic." For brewing, there are basically two types of hops. Aroma hops are used for flavoring, finishing or conditioning brews. Bitter hops have more alpha acids and are used to impart bitterness. Native to Eurasia. Z3. (female rhizomes)

Cascade OR St U, 1972. Contains 4–7% alpha acids. Fragrantly aromatic hop, low bittering value. For years Cascade has been the most widely used hop in the beer industry. Very productive with large cones, ready to harvest mid-late August in central Maine. A customer wrote, "Cascade has gained impeccable renown as the charismatic hop in such unsurpassable ales as Anchor's Liberty Ale, Sierra Nevada's Pale Ale and McNeill's Firehouse Amber Ale. Nothing 'light' about these." Resistant to downy mildew. #L7505A

Nugget Corvallis, OR, 1970. High-yielding high-alpha bittering hops for medium to dark ales and lagers. Very popular in IPA. Heavy spicy herbal aroma. Compact cones ripen midseason, late August to early September in central Maine, about two weeks after Cascade. Resistant to downy mildew and verticillium wilt. **#L7506A**

Willamette USDA, 1976. Alpha content 4–6%. Excellent all-purpose hop. Old English-style aroma with brewing characteristics similar to Fuggle. Low bittering. Spicy aroma. Good finishing hop for brewing English ales and stouts. Vigorous. Good disease resistance. **Indigenous Royalties.** #L7507A

Growing Hops

Soil: Adaptable, but prefers rich light well-drained soil. Top-dress with manure or compost each spring.

Sun: Full, but will tolerate some shade.

Pollination: You need only one variety.

Spacing: In hills 3' apart, 1 or 2 plants per hill.

Planting: Plant hops where you're sure you want them—they'll be hard to get rid of once established. Prepare planting holes with plenty of compost, manure or other slow-release organic fertilizer. Plant rhizomes with buds pointing up and cover with 1–2" loose soil. Appreciates frequent light waterings and mulch the first year.

Training: Vines may grow up to 25' in a single season, and do best if they are trained onto strong twine 12–30' high, supported by a trellis, wire, pole, tree branch or south-facing building.

When young vines are about 1' long, select the most vigorous 2 or 3 shoots per hill and remove the rest; gently wrap the vines clockwise on the twine to get it started.

Harvest: Pick the hops when they are papery but still slightly sticky and filled with yellow powder. Dry hops thoroughly before use. Spread on screens in a dry room, they will dry in a few weeks. Dried hops freeze well.

Pruning: Vines die back to the ground in fall and rebound vigorously in spring. Just cut back the dead vines after frost. To help control vigor, prune roots by cutting a 2–3' circle with a shovel around the base of the plant in spring.

Ordering Instructions

Order online at fedcoseeds.com

Or mail your order form:

Fedco Trees, PO Box 520, Clinton, ME 04927

- Use a current catalog, as prices and selection vary year to year!
- Use the 2026 order form; submit as many pages as you need using our exact format. Download a PDF of the order form to share or print at fedcoseeds.com/requests.htm
- · Keep a copy of your order for your records.
- · We do not take fax or phone orders.

Scionwood orders and March shipment of rootstock: Order online. If this poses a difficulty for you, give us a call at (207) 426-9900.

Bulk pricing on large orders

- Orders with subtotals over \$1,200 receive bulk pricing, which is approximately 10% less than retail pricing.
- Once you have ordered at least \$1,200 in products from Fedco, you will receive bulk pricing for a 12-month rolling cycle. Orders of any size from any Fedco division (Seeds, Trees, Bulbs, Potatoes, Supplies) will count toward this total.
- We encourage you to go in with friends and neighbors to save on shipping by submitting one regular order under one name. We can no longer bundle and label items separately—you'll sort that out yourselves.

Retailers and farms: We need a copy of your state resale certificate or farm exemption, otherwise we must collect sales tax.

- Mail orders: include a copy of your certificate with your paper order.
- Online orders: email us at questions@fedcoseeds.com with a scan of your tax exemption certificate <u>before</u> placing your order.

Shipping Restrictions

Some states have restrictions on imported plants. Please check this list to make sure you're not trying to order something restricted in your area.

- AZ: Carya spp. Hickory; Juglans spp. Walnut, Butternut, Heartnut
- CA: Carya spp. Hickory; Castanea spp. Chestnut; Diospyros spp. Persimmon; Juglans spp. Walnut, Butternut, Heartnut; Pinus spp. Pine; Quercus spp. Oak
 CO: Some counties prohibit Prunus spp. Cherry, Peach, Plum. Please check
- your county regulations.

 FL: Castanea mollisima Chinese Chestnut; Cornus spp. Dogwood
- **GA**: Vaccinium spp. Blueberry, American Cranberry, Lingonberry
- HI: Pinus spp. Pine
- ID: Allium spp. Chives, Flowering Onion; Humulus lupulus Hops; Mentha spp. Mint; Prunus spp. Cherry, Peach, Plum; Vitis spp. Grape
- IN: Fragaria spp. Strawberry; Rosa spp. Rose
- KS: Juglans spp. Walnut, Butternut, Heartnut
 MI: Abies spp. Fir; Vaccinium spp. Blueberry, American Cranberry, Lingonberry
 MT: Pinus spp. Pine
 NJ: Rosa spp. Rose

- NM: Carya spp. Hickory NV: Allium spp. Chives, Flowering Onion; Mentha spp. Mint
- OR: Allium spp. Chives, Flowering Onion; Castanea spp. Chestnut; Corylus spp. Hazelnut; Humulus lupulus Hops; Prumus spp. Cherry, Peach, Plum; Quercus spp. Oak; Sambucus nigra European Elderberry; Ulmus spp. Elm; Vaccinium spp. Blueberry, American Cranberry, Lingonberry; Vitis spp.
- TX: Carya spp. Hickory; Juglans spp. Walnut, Butternut, Heartnut
- WA: Allium spp. Chives, Flowering Onion; Castanea spp. Chestnut; Corylus spp. Hazelnut; Humulus lupulus Hops; Prunus spp. Cherry, Peach, Plum; Vaccinium spp. Blueberry, American Cranberry, Lingonberry; Vitis spp.
- WI: Abies spp. Fir; Pinus spp. Pine; Picea spp. Spruce

Plants in soil medium cannot be shipped to the following states: AK, AL, AR, AZ, CA, HI, ID, KS, MS, MT, ND, NM, NV, OK, OR, SD, TX, UT, WA.

The following plants come in soil: Achillea millefolium 'New Vintage Violet', 'Oertel's Rose' and 'Paprika'; Arctostaphylos uva-ursi Bearberry; Asarum canadense Wild Ginger; Calluna vulgaris Heather; Clethra alnifolia Summersweet; Delphinium elatum 'Dasante Blue'; Dryopteris marginalis Leatherwood Fern; Erica carnea Winter Heath; Gaultheria procumbens Wintergreen; Gaylussacia baccata Huckleberry; Geranium maculatum Spotted Cranesbill; Phlox 'Blue Moon' and 'May Breeze'; Rubus 'Royalty Purple', 'Nelson', all Black Raspberries; Sempervivum Hens & Chicks; V. corymbosum Highbush Blueberry; V. macrocarpon American Cranberry; V. vitis-idaea Lingonberry

* We do not ship any plants outside the U.S.

Order by February 20, 2026

for best selection and priority spring shipment. All orders after February 20 must be placed online. Scionwood: Online orders only. See page 26.

Shipping Rates

- We ship via FedEx or USPS Priority Mail, our choice.
- Maine customers pay only flat-rate shipping fees.
- · Alaska shipments are sent via USPS Priority Mail. Please include a postal address. This rate also applies to Hawaii and anyone in the Lower 48 who requires postal delivery.
- Small & Light shipping applies only to orders in the Lower 48 that exclusively contain item numbers beginning with L: perennials, bulbs, strawberries, rhubarb, hops, asparagus, scionwood, etc. If you order other items in addition to these, you must pay the higher shipping rate.

Shipping Schedule

- Scionwood and early rootstock orders ship in early March.
- · Bare-root plants ship from early March through early May, weather depending, warm states and priority orders first.
- If you provide an email address, you will receive an email update in March with the approximate ship date for your order. When your order ships, you'll receive an email with the tracking number.
- Please allow 1-3 business days for delivery in the Northeast, and 3-7 days for locations farther south and west.
- No Special Ship Dates! We cannot accommodate specific ship date requests or guarantee your order will arrive on a certain day. If you are away during our shipping dates, consider having your plants shipped to a friend or neighbor to care for them until you return.
- We've gone paperless! Your order will not include a packing slipinstead, you'll receive an email attachment with your shipping notification that has all the details, including any out-of-stock items.

Terms & Conditions

See our limited guarantee on page 2.

Out of Stock

We fill all orders on a first-come first-served basis. If an item on your order becomes out of stock and no reasonable substitution is available, we will issue you a refund.

Substitutions

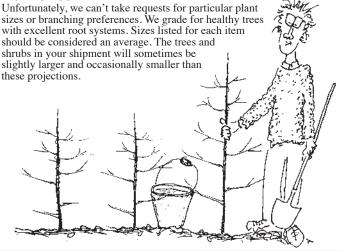
Our plants are subject to seasonal availability. We strive to provide accurate information regarding stock levels, but availability may change due to factors beyond our control. If a specific product becomes unavailable, we may substitute it with a similar variety of the same or greater value, at

Handling Charges

no additional cost.

We charge \$10 for handling each time you adjust your order. Additions and deletions are costly for us to process. You are welcome to place as many separate orders as you wish.

Plant Sizes



questions@fedcoseeds.com

Fedco Trees 2026 PO Box 520 Clinton, ME 04927 www.fedcoseeds.com

| (From mailing label) CC- | | | Paper order deadline: |
|--|--------|-----|---|
| Business Name (if applicable) | | | February 20, 2026 |
| Name | | | After 2/20, please order online. |
| Shipping Address | | | |
| Town | St | Zip | |
| Billing Address (if different) | | | |
| Town | St | Zip | Visit fedcoseeds.com |
| Phone | | | to check product availability. |
| Email | | | avanaomity. |
| Delivery: | | | |
| FedEx or Priority Mail (our choice) Mail to PO Box, AK, HI We cannot accommodate specific ship date requ | uests. | | utions: n your order becomes unavailable, ubstitute with a similar variety. |

| Item Total from reverse | |
|--|---|
| Bulk pricing orders \$1,200+ take 10% off | _ |
| Subtotal | = |
| Fedco Member? 5% Discount from Subtotal | _ |
| Adjusted Total | = |
| Shipping | + |
| Sales Tax (if your state is listed) | + |
| Grand Total | = |

| | | Ship | pping Rates | | | | | | |
|---|---|---|--|-------|--|--|--|--|--|
| | We ship via FedEx or Priority Mail, our choice. If you require postal delivery (all PO Boxes), use the Alaska/Hawaii rates. | | | | | | | | |
| | 1) | Maine | | | | | | | |
| | All item #s begin with L: Maine Small & Light flat rate \$10 Otherwise, Maine regular flat rate \$25 | | | | | | | | |
| ſ | 2) Alaska, Hawaii, or addresses that <i>require</i> postal delivery | | | | | | | | |
| | Adjusted Total up to \$129.00 \$27 Adj Total more than \$129.00 21% of Adj Total | | | | | | | | |
| ſ | 3) | All other U.S. states | | | | | | | |
| | | All item #s begin with L (Small & Light Shipping) | Adj Total up to \$59.00 \$10 Adj Total > \$59.00 17% of Adj | Total | | | | | |
| | | Otherwise, Regular Shipping | Adj Total up to \$147.00 \$25 Adj Total > \$147.00 17% of Adj | Total | | | | | |

| 4 | Sales Tax | | | | | | | | | |
|---|--|---|--|--|--|--|--|--|--|--|
| | ME addresses | _ | Pay 5.5% sales tax on Adjusted Total | | | | | | | |
| | CO, IL, MA, MD, MI, UT, VA | _ | Pay your local tax rate on Adj Total | | | | | | | |
| | AK, CT, GA, IN, KY, MN, NC, NJ, NY, OH, PA, RI, VT, WA, WI, WV | _ | Shipping is taxable – pay your local tax rate on Adj Total + Shipping | | | | | | | |

Payment:

- We accept payment by check, money order, or credit/debit card.
 Please make checks payable to Fedco Seeds, Inc. (We charge a \$25 fee for bounced checks.)
 If paying by card, be sure to include the CVV (3-digit security code on the back of card).

| We accept Visa, M | asterCard | l, America | n Expres | s and Disc | over C | ard. | Exp. Date | CVV |
|-------------------|-----------|------------|----------|------------|--------|------|-----------|-----|
| | | | | | | | | |

Fedco Trees 2026: Trees, Shrubs & other Plants For scionwood and early shipment of rootstock, order online.

| | Item # | Letter code | Quantity | Item Name | Price per item | Total Price |
|-----|--------|-------------|----------|---|----------------|-------------|
| ex. | 1234 | A | 2 | Fantabulous Fruit Tree | \$38.00 | \$76.00 |
| 1 | | | | | | |
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| 27 | | | | | | |
| 28 | | | | | | |
| | | | 20:4 | by this page or our format u can also download | Item Total | |

If you are ordering more than 28 items, copy this page or our format and submit as many pages as you need. You can also download another form at fedcoseeds.com/requests.htm.

If you order only item numbers beginning with ${\bf L}$, you qualify for our **Small & Light shipping rate**. See other side for details.

Order Comments:

Planting Nut Trees for a Sustainable Future

"...the natural engines of food production for hill lands are not wheat and other grasses, but trees. A single oak tree yields acorns... often by the hundred weight, sometimes by the ton. Some hickory and pecan trees give us nuts by the barrel; the walnut tree yields by the ten bushels."

- from *Tree Crops: A Permanent Agriculture* by J. Russell Smith

Nut trees can provide a bountiful and perennial source of protein and nutrient-rich food for humans, birds and other critters alike. They are long living, climate resilient, and can be incredibly productive in landscapes where other methods

of agriculture do not fit. In the Northeast we once had forests of fruitful chestnut trees as an abundant and self-sustaining food source. With those native stands gone, we think it's important to repopulate our landscape with new nut trees

for the future, not only with chestnuts, but also with hickories,

walnuts, hazels and various hybrids.

We are excited to expand our nut offering this year with trees from Yellowbud Farm in Northfield, MA. Yellowbud is a lot more than a farm. Growers there conduct extensive research, selection and breeding focused on viable tree-crop development, and they report that their seedling trees are "the result of 1,000s of hours of rigorous observation to find the most resilient consistent heavy bearing outliers with exceptional nut, fruit, and pod expressions." Grown in the Connecticut River Valley without any synthetic fertilizers or pesticides, Yellowbud's trees are vigorous and well adapted. These trees also represent some of the best genetics to be found and deserve our stewardship.

Yellowbud Farm is part of a larger movement to increase the role of tree crops as major agricultural products. Their friends and neighbors at Breadtree Farms are working to reestablish chestnuts not only as a main food source, but as a rich part of our culture. Breadtree is creating viable systems for farmers to grow, process and market their nut crops. They view chestnuts as a staple food in the same realm as rice, wheat, corn and potatoes, and they are working tirelessly planting and stewarding tens of thousands of trees in the Hudson Valley and southwest Vermont. In the works is an organic nut processing facility. Someday more of us will be able to prepare simple nutritious tree-crop foods like *necci* (thin Tuscan chestnut pancakes), which are gluten free and delicious both sweet and savory.

A future with accessible local flour from perennial tree crops is so exciting, but it doesn't stop with pancakes. We were fortunate enough to sample a bottle of Yellowbud hickory oil pressed by Northern Forest Foods in Vermont. Mild, rich and nutty, it's versatile like olive oil and good for cooking, baking and salad dressings. Northern Forest Foods has been advocating for an improved selection of bitternut hickory (*Carya cordiformis*, listed in our catalog as Yellowbud Hickory Seedling) as a crop for processing and producing as much of its own oil as possible.

A resurgent nut culture is forthcoming as we reimagine sustainable food sources. Let's plant more nut trees for our common future.

Food Forest Seedling Orchard Collection

Start a food forest for your community, for wildlife and for the future! Each collection of 8 trees includes:

two Hybrid Chestnut Seedlings, two Shagbark Hickory Seedlings, one Butternut Seedling,

one Washington Hawthorn Seedling, and two Persimmon Seedlings. With this collection, you'll save 10% on cost per tree. Trees will be individually

labeled. All hardy to Z4. **7808A** Food Forest

Collection,
bundle of 8, \$167.50



NUTS

The nut seedlings we're offering are grown from nuts harvested from the most productive specimens. Like all seedlings, each one is a little different, and nut quality may vary.

NEW! Carya cordiformis Yellowbud Hickory 50-80' x 30-50' Also known as Bitternut Hickory. Large deciduous tree with pinnately compound leaves is closely related to the pecan. Distinguished by its bright yellow winter buds; the namesake tree of Yellowbud Farm in Northfield, MA, our supplier of these high-quality seedling trees. Produces thin-shelled bitter nuts generally considered inedible to humans; yet the tannins are water soluble—similar to those in olives—and nuts can be pressed into a mild light nutty cooking oil. The kernels are 75–80% oil and high in oleic acid. Squirrels, chipmunks, bluejays, bears and many other critters love them. Has the widest distribution across North America of any tree in the Walnut family. Highly valued by indigenous peoples for thousands of years, yellowbud is climate-change resilient, drought and frost tolerant, and worthy of our stewardship as we look toward an uncertain future. Somewhat self-fertile, but plant two for best pollination. Z3. (21/2-5')

7515A Yellowbud Hickory, \$24.00

NEW! C. illinoinensis x ovata Hybrid Hickory 50-70' x 30-40' A cross between pecan and shagbark hickory, often referred to as **Hican**. Combines the thinner shell and sweeter flavor of pecans with the larger size and richness of shagbark nuts. May be pollinated by pure C. illinoinensis or C. ovata, but due to varying bloom times, **planting two or more hybrids is the best way to ensure good pollination**. Z4/5. (21/2-5')

7516A Hybrid Hickory, \$24.00

C. laciniosa Shellbark Hickory 60-80' x 40-60' Tall with a distinctly narrow crown resembles shagbark hickory but with somewhat less shaggy bark though it also exfoliates in strips when mature. Fruit husks are a bit thicker and shells are larger than its cousin's but still valued by humans and wildlife. A tree of bottomlands and floodplains, it prefers rich damp soils and tolerates seasonal flooding. Dark green odd-pinnate compound leaves with 4–8" leaflets are yellow or brown in fall. Give it lots of space to grow! Self-pollinating but planting multiples benefits crop yields. Native from NY south and west to the

Mississippi River plains. Z5. (21/2-5') 7517A Shellbark Hickory, \$23.00 C. ovata Shagbark Hickory 60-80' or taller. One of our most beautiful native nut trees. Straight trunked with branches that curve skyward at the tips. Not only does the bark shag, it looks like huge long strips are about to fall off. After the tree reaches bearing age, about 40 years, it will shower the yard with sweet edible nuts. Those left unharvested will likely be planted by local creatures, some four legged, some two. Rich yellow

fall foliage. Slow growing but very long-lived. Tough wood used for making tool handles. Prefers rich well-drained loam but is adaptable. **Self-pollinating.** Native to eastern U.S. Z4. (2¹/₂-5')

7518A Shagbark Hickory, \$23.00

More Nuts, next page.

Pollination clarification

Self-pollinating, **self-fertile** and **self-fruitful** all mean the same thing. You can plant a self-fertile tree and expect it to pollinate itself and set fruit alone (e.g. peaches and pie cherries). Many self-fertile trees' fruit sets are enhanced with multiple plantings (elderberries and saskatoons).

Self-sterile or **self-infertile** means that another tree of a different cultivar or variety is needed to set fruit (cross-pollinate). This is the case with most apples.

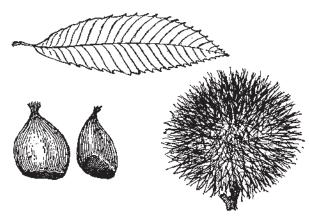
Monoecious (from Greek meaning 'one household') plants have their female and male parts on separate flowers both together on the same plant. In most cases, these plants are self-fertile. Dioecious ('two households') plants have either all male or all female flowers on separate individuals. You would need to plant one female and one male to achieve pollination. When you buy unsexed seedlings, you generally have a 50-50 chance of getting one sex or the other (e.g. spicebush and bayberry). Bisexual or perfect flowers contain both male and female components within the same flower. Some plants with perfect flowers will be self-fertile, some will not. Often, specific cultivars or varieties have perfect flowers but they cannot pollinate themselves and need other varieties to do it for them (apples and blueberries).

more Nut Trees

Castanea Chestnuts Delicious sweet chestnuts are an important food for both humans and wildlife. Use them for roasting, stuffing and soups, or dry them to make flour for baked goods. The tree's profuse fragrant white blossoms feed the pollinators. Lustrous dark green foliage is ribbed and sharp-toothed. Yellow fall color.

Before 1900 the American chestnut was one of the most important deciduous trees in the eastern U.S. Chestnut blight showed up in Brooklyn, NY, in 1904; within 50 years it killed virtually every chestnut tree in the eastern U.S. The blight does not kill the roots however, and rare stands of stump sprouts can still be found. Hybrid chestnuts and Chinese chestnuts are resistant to blight.

Chestnuts prefer loamy well-drained acidic soil and full sun. **Two or more needed for pollination** and all three chestnuts we're offering this year will cross-pollinate with each other. Z4.



C. dentata American Chestnut Up to 100' Our native chestnut, fast growing and straight trunked with a wide-branching magnificent rounded crown. Precocious, bearing heavy crops of nuts in 10 years. Arrow-straight rot-resistant wood was once used for everything from mine timbers to musical instruments. In July 2015, the tallest American chestnut in North America was discovered in Lovell, ME, by researchers who spotted the white blossoms from the air. The trees we offer are not immune to chestnut blight but are likely to thrive in a suitable site for 10–30 years. From each American chestnut purchase, Fedco will donate \$3 to support the American Chestnut Foundation Maine Chapter's traditional breeding program. Z4. ME Grown. (1-4')

7519A American Chestnut, \$29.50 **7519B** American Chestnut, bundle of 5, \$132.75

C. Hybrid Chestnut Seedling 40-60' x 30-40' Seed collected from orchards with potential crossings of *C. crenata* (Japanese), *C. mollissima* (Chinese) and *C. dentata* (American). Harvested from healthy trees showing excellent blight resistance—they are showing promise in our orchard settings. Great flavor and high annual nut production averaging

20–50 lb per mature tree. Typically begin flowering at age 3–5. Produce well even during harsh droughty conditions. Z4. (2¹/₂-5')

7520A Hybrid Chestnut Seedling, \$24.00 **7520B** Hybrid Chestnut Seedling, bundle of 5, \$108.00

C. mollisima Chinese Chestnut 40-60' x same. Low-branching broadly rounded open form with large long narrow sharp-toothed shiny green leaves. Curious catkins look like green fireworks sprouting from the branch tips. Grooved grey bark. Although variable because they are seedlings, they usually produce good-to-excellent nuts 5–7 years after planting. Immune or at least highly resistant to the dreaded chestnut blight and used in breeding work to develop a blight-immune American chestnut. Native to eastern Asia. Z4. (2¹/₂-5')

7521A Chinese Chestnut, \$22.00

7521B Chinese Chestnut, bundle of 5, \$99.00

Fedco does not support genetically engineered Seeds or Trees. At our 1996 Annual Meeting, our cooperative voted unanimously not to knowingly offer for sale any genetically engineered variety because the gene technologies may pose unacceptable risks to the environment. Similarly, we have supported the campaign to stop GE Trees and taken a stance against the release of genetically engineered chestnuts. For more about this pledge, our commitment to testing for GE contamination, and talks on GE by Fedco founder CR Lawn, please go to:

fedcoseeds.com/seeds/genetic_engineering.htm.
Please read our extended discussion of the genetically engineered chestnut at fedcoseeds.com/trees/ge-trees.htm

Corylus Hazelnut Squirrels, bluejays and humans alike relish the nuts of these multi-stemmed rounded shrubs. Collect the crop as soon as the husks begin to turn brown and lose their sticky yellowness.

In central Maine that's around the third week of September. Showy catkins in spring. Dark green serrated foliage in summer. A patchwork of reds, yellows, oranges and greens in autumn. Suckers from the roots.

Excellent for naturalizing in thickets. The main pest is nut weevil, which leaves a "hit" mark on the nut shell. (Raking up drops and spraying Surround may help with this.)

Hazelnuts prefer well-drained soils; pH adaptable. Full sun or light shade. May be self-fruitful but for best nut

sets, plant more than one, 4–6' apart. *C. americana* American Hazelnut 12-18' x 10-15' Also called American Filbert. Sweet tasty ½" nuts are ready for harvest late September in central Maine. Usually bears 3–5 years after planting. Native to central and eastern North America. Z4. (1-3')

7523A American Hazelnut, \$21.00 **7523B** American Hazelnut, bundle of 5, \$94.50

C. Hybrid Hazelnut Seedling 8-12' x same (mature plant size may vary). Seeds collected from orchards with potential crossing of three hazelnut species: American hazelnut, *C. americana*; beaked hazelnut, *C. cornuta*; European hazelnut, *C. avellana*. The nuts from these shrubs will likely be larger than those from other seedlings because they are crossed with the larger Europeans (the kind you can buy at the store). May be self-fruitful but for best nut sets, plant more than one, 4-6' apart. Highly resistant or immune to filbert blight. Z3. (1-3')

7524A Hybrid Hazelnut Seedling, \$21.00 **7524B** Hybrid Hazelnut Seedling, bundle of 5, \$94.50

Juglans ailantifolia var. *cordiformis* Heartnut $30-60^{\circ}$ x $30-40^{\circ}$ A sport of the Japanese walnut with an unusual form: the shell and its

nut are shaped like a heart. Clusters of 4–10 nuts containing sweet flavorful meat follow showy spring catkins. Ornamental yellow-green pinnate leaves. Husks can be used to make a yellow dye. Starts bearing fruit in 3–5 years. Very similar to our American butternut but resistant to canker disease. Will hybridize with butternuts to create buartnuts. Commercial orchards are planting grafted cultivars for nut uniformity. These are seedlings, so nut size and crackability will vary. Considered partially self-fertile; plant more than one to increase pollination success.

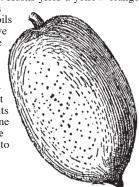
Space trees 30–40' apart in deep well-drained moist soil. Hardy but may not produce nuts after a late spring frost. Native to Japan and the Russian island Sakhalin. Z4/5. (2¹/2-5')

7525A Heartnut, \$23.00 **7525B** Heartnut, bundle of 5, \$103.50

J. cinerea Butternut 40-60' x same. Very large impressive rounded shade tree produces edible nuts. Broad open crown, distinctive compound leaves on large arching branches that can hang nearly to the ground. Leafs out relatively late in spring. Use the oblong edible nut to make oil, or pickle the soft young nut for snacking. Husks yield a yellow-orange dye. Very nice cabinet wood referred to as

White Walnut. Prefers moist rich deep soils but will grow in dry rocky conditions. Give it full sun and plenty of space. Susceptible to butternut canker, which has devastated many wild specimens. Some lovely old trees are thriving in Belfast, Belmont and Newburgh, ME, and may have been backcrossed long ago to include genes resistant to the canker. These seedlings are from nuts we harvested from some of those old Maine trees. Self-fertile, but plant two for more abundant crops. Native New Brunswick to Georgia. Z3. ME Grown. (1-3')

7526A Butternut, \$24.00



SHADE TREES

Betula nigra River Birch 60-80' x 40-60' With its graceful silhouette and attractive bark, river birch is a highly prized ornamental. Grows to be a very large rounded tree. Found along stream banks and riparian areas where conditions are wet in winter and spring, dry in summer and fall. The beautiful reddish-brown exfoliating bark reveals the equally ornamental multi-shaded inner bark. Dark green summer foliage yellows before dropping. Leaves, twigs and bark traditionally used to treat various stomach ailments. Birds eat the seeds and deer browse the foliage. Wood not as valuable as other birch. Prefers moist acid soil. Fast growing, trouble free. Native to eastern U.S. Z4. (2-4')

7531A River Birch, \$17.00

Catalpa speciosa Northern Catalpa 40-60' Also known as Western Catalpa, Elephant Ear Tree, Catawba and Cigar Tree. Fastgrowing coarse habit with a somewhat narrow open irregular crown and thick interesting undulant branches. Dense foliage of huge "elephant ear" heartshaped leaves provides excellent shade. Covered in early summer with clusters of ruffled incredibly fragrant jasmine-scented white blossoms, each dotted with purple and spotted with rich buttery yellow radiating from the throat. Flowers attract bees by day and moths by night. Fruits are long bean-like "cigar' pods. The wood is extremely rot resistant and was once used to make railroad ties in the Midwest. Prefers deep moist fertile soil, but thrives in almost any condition, sun or part shade. Grows rapidly. Remains dormant late into spring. **Self-fertile.** Native to central U.S. Z4. (2-4')

7533A Northern Catalpa, \$22.00

Gleditsia triacanthos Honeylocust 50' x 30-35'
Beautiful fast-growing pyramidal leguminous nitrogenfixing tree. Bright green lacy leaves provide filtered light, making it good for "two-story" agriculture or great shade for the lawn. Subtle greenish-white flowers turn to sugary pods suitable for cattle or pig forage or even ethanol. Traditionally pods were dried and ground as flour. Good for erosion control and often used as a street tree. Plant in full sun, well-drained soil. Tolerates drought, pollution, salt, disease and insects. May have thorns, which

some growers find to be one of its interesting features. Native to eastern U.S. Z4. (2-4')

7535A Honeylocust, \$22.00 Liriodendron tulipifera Tuliptree 60-90' x 30-50' Also called Tulip Poplar. Highly ornamental shade tree and largest native relative of the magnolia. Decorated in late spring with large tulip-like flowers that lure in the hummingbirds. Each 6-petaled light lime-yellow flower is ornamented with a bright orange band that extends from petal to petal, visible inside and out. Deeply grooved richly colored bark. Very attractive flat soft-green rounded leaf has a shape like a child's drawing of a tulip. Golden-yellow fall color. Fast-growing tree produces a very straight and clear trunk, hence its popularity with furniture makers and boat builders. One of the tallest trees in the eastern U.S. but it will adapt to the space you give it. Reaches full potential toward southern New England but we've seen a few impressively large specimens in central

acid loam. Native to eastern U.S. Z5 or maybe Z4. (2-4')

Maine. Full sun, moist well-drained slightly



Maclura pomifera Osage Orange 35-60' x same. Also called Hedge Apple, Bois d'Arc or Bodark. Fantastical native shade tree with a wide spreading canopy over a short eccentric trunk. The mature tree can live for hundreds of years and develop a surreal orange-brown bark with extreme fissures and gnarly knobby lumps that look like they are melting over themselves. Strong wood is orange and rivals black locust in rot resistance. Traditionally used for

fence posts and bows or as a hedge plant before

the invention of barbed wire. Keep it short and it will sucker freely with severe thorns sure to keep out all trespassers while allowing birds and migrating critters to take shelter. Neon-green grapefruit-sized fruits have a strange bumpy texture and ooze a sticky latex. Not palatable to humans but could be consumed by cattle or horses. Fossilized pollen records indicate a once extensive native range in North America when the megafauna who might have ingested its large fruit roamed the continent dispersing its seed. Now mostly found in river valleys of the Midwest and South. Prefers full to part sun and moist well-drained soil, but once established it is adaptable to a wide range of conditions including drought, clay, cold and pollution. Dioccious unsexed seedlings. The females bear the fruit so plant more than one to increase chances of a yield. Seed collected in Maine. Z4. Indigenous Royalties. BACK after a long absence! (2-4')

7583A Osage Orange, \$22.00

Plantanus occidentalis American Sycamore 75-100' x same.
Also called American Planetree, Water Beech or Buttonball-tree.
Extraordinary native shade tree considered to be the largest

indigenous hardwood in the U.S. The trunks and stems are a strikingly mottled patchwork of greenish-grey bark plates against chalky white background. Large 6"-wide lobed leaves resemble sugar maple. Little brown fruiting balls turn fuzzy, disperse in the winter wind and are eaten by finches and juncos. Branches twist and turn often at a sharp right angle. A remarkable show against the winter sky. We collected seed from the Hudson, NY, area and have been trialing in central Maine for the last seven years. Grows well in average moist well-drained soils in full sun but will tolerate light shade. They show no dieback in winter, are very fast growing and seem unperturbed by extreme heat or drought. Native to bottomlands and riverbanks Maine to Minnesota and south to Texas. Z4/5. (2-4')

More Shade Trees, next page.

7540A Sycamore, \$22.00

Special Plants for Challenging Locations

Wet Tolerant: **Drought Tolerant:** Bearberry Amelanchier Catmint Birch Chokeberry Highbush Blueberry Buttonbush Chestnut Eastern White Cedar Erica Chokeberry American Cranberry Grape Heather Dogwood Hens & Chicks Elderberry Honeylocust Elm Huckleberry Ferns Lavender Blue Flag Iris Sweetbay Magnolia Lilac Lingonberry Marshmallow Rosa rugosa hybrids Swamp Milkweed Carolina Rose Carolina Rose Spicebush Spruce Fragrant Sumac Steeplebush Sweetflag American Sycamore Trollius Willows Witch Hazel

Shade: Astilbe Dogwood Balsam Fir Bleeding Heart Leatherwood Fern Geranium Wild Ginger Hazelnut Hops Hosta Jack-in-the-Pulpit White Pine Woodland Phlox Pulmonaria Snowberry

Solomon's Seal Spicebush Summersweet Northern Wild Raisin Wintergreen Witch Hazel more Shade Trees

Quercus Oak Many oaks are native to New England. They are generally divided into two groups: the reds and the whites. The reds have pointier leaves and the whites have rounder ones. Most of them make absolutely breathtaking shade trees, creating a major presence in almost any landscape and providing bountiful forage for wildlife and for humans. The strongly astringent inner bark, foliage and acorn caps are all medicinal, and acorns were an extremely important human food source for thousands of years. Contrary to much of the literature, all acorns are edible, both reds and whites. (For instructions on acorn processing, see Samuel Thayer's book Nature's Garden.) The tannins from a handful of oak leaves added to homemade half-sours will keep pickles crisp for months. These oaks are all native to eastern North America. Oaks are monoecious so you need only one to get acorns. (2-4')

Q. alba White Oak 50-80' x same. Spectacular broad irregularly rounded oak with low-lying branches that stretch out horizontally from the trunk, sometimes as far as 50'. Bark is finely

grooved and etched. Wood is valued for lumber and firewood. Once common along the Maine coast, it was almost entirely stripped for boat-building lumber more than a century ago. Some extremely fine specimens in Maine grow on Swan Island in the Kennebec River. Soil adaptable, though prefers deep moist well-drained acid conditions, full sun. Thrives where fallen leaves can be left around the base; avoid soil compaction, even foot traffic

Disease and insect resistant, drought tolerant. Slow growing and extremely long-lived. Z3.

7541A White Oak, \$22.00

Q. bicolor Swamp White Oak 50-60' x same. Also called Bicolor Oak. A massive rounded shade tree with a short deeply ridged trunk and a fan of branches, the uppermost ascending and the lower drooping. The contrast between the light grey bark and the dark trunk fissures is particularly striking. Called Swamp White in recognition

of its affinity for the wild low wetlands that once peppered eastern North America before the days of the parking lot and the Big Box. Called Bicolor because its large thick leathery lobed leaves have a glossy dark green upper surface and a white to greyish-green hairy felty underside. Its large 11/2" sweet acorns are highly attractive to wildlife, particularly waterfowl, sapsuckers and squirrels. Yellow to

reddish-purple fall foliage persists until spring. Prefers moist acid soils where drainage is poor, but exhibits excellent drought resistance as well. Very fast growing once established. Z3.

7542A Swamp White Oak, \$19.00

Q. macrocarpa Bur Oak 70-80' x same. Hardiest of the white oaks with a deeply grooved massive trunk and a wide-spreading crown of huge branches. Small branches are distinctively corky, winged and tend to twist and kink. The habit is upright and somewhat vase-shaped. Lustrous dark green foliage and large 1-2" acorns, each almost entirely enclosed in a fringed cup. These are edible and low in tannic acid; when roasted they reportedly make a decent coffee substitute. The most urban-tolerant oak. Fairly fast growing. Needs full sun but adaptable to a wide range of soil types including clay. Z3.

7543A Bur Oak, \$22.00

Q. rubra Northern Red Oak $60-75' \times 45'$ The most common oak in northern New England. Typically a single large trunk dividing into several large ascending spreading branches. While the branches are not as massive as some of the other oaks, its open rounded crown is magnificent. The trunk is a deep grey textured web of surfaces overlaid one upon another. Sharply toothed foliage turns

orange-tan during apple season. Fast growing, up to 2' per year. Prefers well-drained sandy slightly acid soils; red oaks we planted in shallow ledgy ground are thriving. Tolerates shade, compacted soil salt, pollution and other urban conditions. Native to eastern

North America. Z4. 7544A Northern Red Oak, \$16.00

Salix pendulina f. salamonii 'Chrysocoma' Golden Weeping Willow 50x50' (S. babylonica Babylon x S. alba Vitellana) Selected by Späth, Berlin, Germany, 1888. For years we listed this as S. alba

'Tristis' Niobe Weeping Willow. The classic weeping willow. A very large majestic graceful wide-spreading tree with golden drooping branches that hang to the ground and sweep in a breeze. Buzzes with life when May flowers attract loads of pollinating bees. Very fast growing and hardy, may shed lower branches as it grows. Light green leaves turn yellow in fall. Prefers full sun and moist to wet soils but tolerates a range. When young, treat like an apple tree and protect the trunk with mouse guards in winter. Keep grass away from the base to deter voles in summer. Don't plant near septic fields; roots can break into the tank. Native to southern Europe and

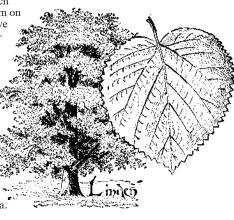
western Asia. Z3. (2-4') (More willows on page 50.)

7545A Golden Weeping Willow, \$23.00

Tilia americana American Linden 60-80' x same. Also known as Basswood, Butterwood and Lime. Tall stately long-lived tree with rounded crown and numerous low-hung spreading branches.

Sweetly fragrant yellow June flowers will attract all the bees in the neighborhood, make the best honey, and also make a popular afterdinner tea and stomach

remedy. Sprinkle them on your salad for a festive treat. The young halfsize foliage makes a high-quality salad green. Excellent carving wood. Fibrous inner bark used for making cordage. Yellow fall color. Prefers deep rich moist soils. Full sun or partial shade. Sensitive to salt and pollution. Native from New Brunswick to Virginia.



7546A American Linden, \$22.00

Ulmus americana 'Princeton' American Elm 60x70' Princeton Nursery intro, 1922. Large fast-growing graceful native once lined

virtually every street in New England but declined dramatically due to Dutch elm disease. Fortunately, several disease-resistant cultivars have been introduced. Princeton has been a standard in the trade for over a century, chosen for its high resistance to the disease. Good resistance to elm leaf beetles, too. At maturity the trunk can be 4' (even up to 8'!) in diameter with an immense vase-shaped canopy. Long pendent branches blow and sway in a hazy breeze on hot summer days. One of the most wonderful shade trees for northern climates. We're infatuated with them. If you find yourself in Castine,

ME, visit the huge old elms lining every street; you'll feel like you stepped back in time. Soil adaptable, prefers moist areas along rivers and streams but also grows well in drier places. Plant off the corners of a house and they'll provide all the shade you need. Salt and drought tolerant. Plant more

elms! Z4. **ME Grown.** (2-4') 7548A Princeton American Elm, \$35.00

CONIFERS

Abies balsamea Balsam Fir 45-75' One of the most abundant of our native conifers. Narrow, conical, smooth-barked. Twigs, inner bark, needles and sap are all medicinal. Small "blisters" contain a transparent aromatic resin that has been traditionally used as an inhalant for headaches and congestion, and as a salve for cuts and arthritis. Needle tea is rich in vitamin C. The fragrant boughs are a favorite for wreaths; the needles used in scented pillows and potpourri. The best of all conifers for a Christmas tree! Prefers well-drained moist acid soil. Avoid polluted areas. Semi-shade tolerant, slow growing. Good hedge or specimen tree, songbird nesting area or rabbit thicket. Native from Labrador to northeastern U.S. Z3. (6-12")

7549A Balsam Fir, bundle of 5, \$25.00

Picea abies Norway Spruce 80-100' Fast-growing wide-spreading upright picturesque tree with graceful long pendulous branches that often reach the ground. Largest of the spruces. If you go to the Mt. Auburn Cemetery in Cambridge, MA, don't miss the ancient Norway spruce just inside the front gate. Several of its massive drooping branches have rooted and turned into secondary trunks. It is truly amazing. Orange-brown scaly bark. Excellent lumber. Showy 4–6" cones. Bright green foliage. Plant in full sun to part shade. Prefers loam but tolerates poorer soils better than other spruces. Native to northern Europe. Z2. (16-24")

7552A Norway Spruce, bundle of 5, \$35.00

P. glauca White Spruce 60-80' One of the best trees for wind blocks and privacy screens. Trunk diameter reaches up to 2'. Wood commonly used for lumber, pulp and paddles. Harvest bright green spruce tips in late May to early June and process into citrusy sugar, syrup, vinegar or cordials. High in vitamin C. Adaptable and tolerant to wind, drought and cold. Full sun. Native to boreal forests, subalpine regions and Acadian forests of North America ranging from Alaska to Newfoundland. Northernmost trees nearly reach the Arctic and will withstand winter lows of -70°. Z2. (14-20")

7553A White Spruce, bundle of 5, \$38.00

Birds and Native Conifers

Conifers provide protected nesting sites and shelter for many birds, and they all offer plenty of forage. Birds eat the buds and seeds, and conifers also host an array of caterpillars and other insects for birds to feast upon.

The Audubon website features a nifty native plant database that generates plant lists for your area, along with which bird families are attracted to each species. We searched our part of central Maine and learned which birds rely on our native conifers:

Balsam Fir: Attracts finches, wrens, thrushes, chickadees and sparrows, among others.

White Spruce: Attracts thrushes, woodpeckers, chickadees and mockingbirds, among others.

Eastern White Cedar: Attracts wood warblers, cardinals, grosbeaks, woodpeckers and jays, among others.

Eastern White Pine:

Attracts chickadees, titmice, vireos, finches and waxwings, among others.

To search native plants and birds in your area, go to: audubon.org/native-plants

P. pungens var. glauca Colorado Blue Spruce 30-60'
Very popular specimen tree with frosty blue needles.
Excellent for privacy screens, as it is fast growing after 3'. A beautiful stand of blue spruce is on Rt. 139 in Benton, on the east side of the Sebasticook River. Plant in full sun to part shade. Does not like wet soil. Extra spring nitrogen will improve blue color, which doesn't appear for the first few years.

Native to western U.S. Z2. (12-18") **7554A** Colorado Blue Spruce, bundle of 5, \$39.50

Pinus strobus Eastern White Pine 100-130' or more. The largest northeastern conifer. Magnificent and massive when mature Smooth greyish-green bark becomes thick, rough and deeply furrowed with age. A cup of pine needle tea has more vitamin C than a cup of orange juice; Native Americans showed early white explorers how to brew it and stave off scurvy. The resin has numerous practical and medicinal applications. Excellent wood with a thousand uses. Grown in the forest it will typically be "clear" (no lateral branches) for the first 30–80'. Planted thickly and sheared, it makes a beautiful hedge that won't drop its lower branches. Likes ordinary to poor—even sandysoil. Shade tolerant, but does not like salt or roadsides.

7556A Eastern White Pine, bundle of 5, \$38.00

Fast growing. Native to eastern U.S. Z3. (12-24")

Thuja occidentalis Eastern White Cedar 20-60' Also called Arborvitae, which means 'tree of life.' Common throughout the entire state of Maine although some stands have been depleted by overcutting. Narrow and tall with twiggy branches, soft fibrous orange-brown bark, and flat foliage unlike that of any other conifer. Valuable light fragrant wood, the standard for fence posts and log cabins in Maine. Slow growing, lives up to 400 years. Good for screens and hedges. A favorite browse of deer. Pruning limbs and leaving them on the ground during a harsh winter helps sustain these animals and is a long-practiced tradition in the forests of Maine. Foliage and bark tea is high in vitamin C and helps fight infections. Twig decoction makes an antiviral antifungal skin wash.

Thrives in rich moist marshy neutral-to-alkaline soils. Z2. (18-24") **7557A** Eastern White Cedar, bundle of 5, \$39.50



Growing Conifers

Soil: Tolerate a wide range of soil conditions; most prefer slight acidity.

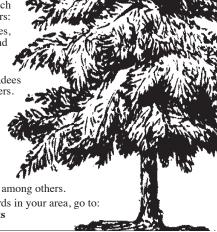
Sun: Most tolerate some shade.

Planting: If you are planting in dry or well-drained areas, dip tree roots in a solution of Agri-gel (available on our website) before planting to protect roots from drying out. Do not *soak* conifers in the Agri-gel solution; a good dipping is sufficient.

It is better to prune the roots than to crowd them in the hole; you can shear back roots by about a third of their length. Dig a small hole or make an incision with a spade and slip the tree in to the level it grew in the nursery. Fan the roots out. Water well and pack the earth down with your feet to remove air pockets.

Periodic deep watering is far more beneficial than frequent sprinkling. Fertilization is not necessary in the first year. In later years you may fertilize around the drip line.

Pruning: To make evergreens dense and compact, prune back the central leader and the center bud on the end of each side branch. Otherwise, leave them alone.



Bringing Nature Home: How Native Plants Help Maine's Birds Thrive

by Andrew Tufts, Program Manager, Maine Audubon

Maine's birds are in trouble. Across North America, bird populations have declined by nearly 3 billion since 1970. Habitat loss is the primary driver—and that includes the loss of native plant communities in the places where we live, work and play.

That's where Maine Audubon's Bringing Nature Home program

That's where Maine Audubon's Bringing Nature Home program comes in. Inspired by the work of entomologist Doug Tallamy, this initiative encourages Mainers to transform their landscapes into thriving habitats for birds, insects and other wildlife—one native plant at a time.

Why native plants? Because they are the foundation of local food webs. Native perennials, shrubs and trees have evolved alongside our insects, and they support far more biodiversity than non-native species. Take caterpillars, for example: the larvae of butterflies and moths are a vital food source for nesting songbirds. One clutch of chickadee chicks needs thousands of caterpillars to survive—and those caterpillars, in turn, need the right native host plants to complete their life cycles.

That's why an oak tree (*Quercus* spp.), which can host more than 400 species of caterpillars, does far more for birds than a gingko or Bradford pear ever could. In a similar way, native flowering perennials like goldenrods, asters, milkweeds and bee balms provide nectar for pollinators, seeds for finches and sparrows, and shelter for overwintering insects that ground-feeding birds rely on.

The benefits of planting native go far beyond food. Dense native thickets of viburnum, dogwood and elderberry provide critical cover and nesting sites. Native grasses like little bluestem and switchgrass offer winter roosting habitat. By building layered plantings, from groundcovers to canopy trees, gardeners can recreate the structural diversity of a healthy ecosystem in their own backyards.

Through plant sales, garden tours, hands-on workshops, and community science initiatives, Bringing Nature Home is helping thousands of Mainers get started. If you're interested in learning more about native plants of Maine, check out mainenative plants.org to explore our native plant finder and plant sale.

When you shop for plants through local growers like Fedco, you're supporting a movement that goes far beyond beautifying your yard. You're helping to build a resilient, ecologically rich landscape—one that sustains warblers, waxwings and woodpeckers for generations to come.

To learn more, visit maineaudubon.org/bringingnaturehome, and join us in bringing nature home.



Fedco's Birdsaver Shrub Collection

Each collection contains five pairs of native fruiting shrubs to help support avian foraging in your neighborhood:

two Elderberries,

two Saskatoons,

two Dogwoods,

two Viburnums, and

two Chokeberries, for a total of 10 shrubs. Plants will be individually labeled. **We will donate**

10% of all sales to the Maine Audubon. (This collection does not qualify for bulk pricing since this is a fundraiser.) All hardy to Z4.

7807A Fedco's Birdsaver Shrub Collection, bundle of 10, \$183.50

SMALL TREES & SHRUBS

As Green's Nursery catalog from 1904 explains, "There are many trees that by pruning can be made to resemble shrubs, and many shrubs that by different pruning may be made to produce medium-sized trees."

Amelanchier laevis Allegheny Serviceberry 15-25' The most common Amelanchier in Maine. Referred to as **Shad** or **Shadbush**

by old-timers because the blossoms coincide with the spring shad run in certain Maine streams. The unique purplish-orange bronzed color of the unfolding leaves on this understory tree is a favorite spring sight. Pendulous white 5-petaled blossoms precede the young leaves and are followed by small purplishblack sweet berries that ripen in midsummer. (For shrub Amelanchiers grown for fruit production, see Saskatoons on page 29.) Taxonomy of Amelanchiers is a point of confusion in the nursery trade where common names and even botanical names are used interchangeably. Furthermore, they easily hybridize with each other in

nature. Considered to be self-fruitful, but

we recommend planting more than one to ensure pollination. Likes well-drained acid soils along the edge of fields, streams and roads. Native Midwest to eastern U.S. and Canada. Z2. Indigenous Royalties. (1-3')

7558A Allegheny Serviceberry, \$16.50

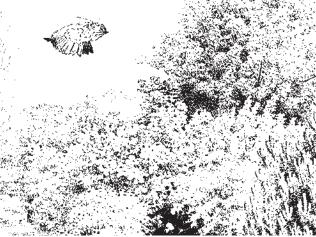
Aronia spp. Chokeberry Aronia has gotten a lot of press in recent years as a superfruit: it has wonderful medicinal qualities, works well in a range of culinary applications and is an important wildlife plant in the native landscape. Both red (A. arbutifolia) and black (A. melanocarpa) chokeberries are edible when cooked, but we emphasize the red for wildlife, while the black may be a better choice for medicine and food. Black chokeberries are commercially cultivated for their high levels of antioxidants and myriad health benefits. Both species are small rounded shrubs with blueberry-sized fruit and electric-red fall foliage. Begins to bear fruit in its third year and increases to full yield around five years. Ripens in late July or early August. If not harvested, the berries will hang on the bushes until songbirds eat them in late winter. Will form colonies, especially when planted in partial shade. Not particularly picky about where it grows: adaptable to moist or dry areas, sun or partial shade. Native to eastern U.S. Self-fruitful. Z3/4. (1-3')

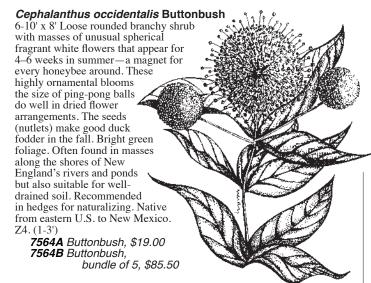
A. arbutifolia Red Chokeberry Seedlings 6-10' x 3-6' Each one is genetically unique. All produce stunning red fruit and fall foliage. Beautiful in mass plantings and borders. Plant several in a hedge and make the birds happy!

7559A Red Chokeberry Seedling, \$19.00

A. melanocarpa Black Chokeberry Seedlings 3-6' x same. Each one is genetically unique. Plant several for an attractive edible hedge for juice, jam and syrup production, or intermingle with perennials in a wildflower garden. Everything about this plant is lovely from spring foliage emergence, to flowering, to fall when the branches are pendulous with ripe fruit. Summer foliage stays glossy and bright, free of disease.

7560A Black Chokeberry Seedling, \$19.00 **7560B** Black Chokeberry Seedlings, bundle of 5, \$85.50





Clethra alnifolia 'Ruby Spice' Summersweet 4-5' x same. Sport of 'Pink Spires', Broken Arrow Nursery, Hamden, CT, 1992. Also known as **Sweet Pepperbush**. Red buds and beautiful spires of

heavenly scented deep-pink flowers appear on racemes for six weeks in midsummer. Bees and butterflies love it. Whorls of extremely attractive finely serrated distinctly veined glossy dark green foliage turn deep gold in fall. Dangling racemes of "black peppercorns" persist into the next growing season. Erect oval habit, often suckering to form dense colonies. Slow growing. Prefers acid moist welldrained soils. A good shrub to border streams and ponds. Will tolerate salty coastal conditions Full sun to shade. Easy to grow. Species native Maine to Florida. Z3. (plugs)

7566A Ruby Spice Summersweet, \$17.00

Make Space for Native Plants

We love incorporating native plants into our gardens and orchards. These plants are attractive, natural and beautifully suited to our growing conditions. They are also the best food sources for our butterflies, bees and other wildlife. Here are some you'll find in our catalog:

Amelanchier Pagoda Dogwood Mockorange Asters Redosier Dogwood Oaks Beach Plum Silky Dogwood Osage Orange Bearberry Echinacea White Pine American Plum Beardtongue Elderberry Bee Balm American Elm Carolina Rose Birch False Indigo Blue Sage Blackberry Spicebush Ferns Blazing Star Balsam Fir White Spruce Blueberry Wild Geranium Steeplebush Stiff Goldenrod Fragrant Sumac Bluestar Sweetflag American Sycamore Hazelnut Boneset Butterfly Weed Honeylocust Butternut Huckleberry Tuliptree Buttonbush Blue Flag Iris Vervains Eastern White Cedar Jack-in-the-Pulpit Violet Wild Ginger Joe Pye Weed Chestnut Winterberry Witch Hazel Chokeberry American Linden Wild Columbine Lingonberry American Cranberry Milkweed more on our website! Diervilla Mountain Mint

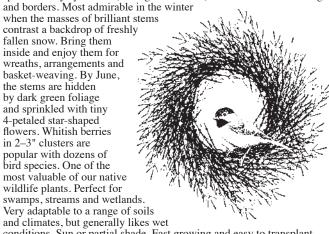
Cornus alternifolia Pagoda Dogwood 20' x 30-35' Also known as Alternate-Leaved Dogwood. Small tree or large multi-stemmed shrub, particularly beautiful with its tiers of horizontal branches and fragrant white 2-3" flower clusters. These appear in mid-late spring followed by immature olive-green berries, each tipped with a tiny bright yellow style remnant. In midsummer clusters of dark blue berries ripen above the blue-green foliage. One of the most popular dogwoods with the birds. Roots bark and inner bark are all medicinal. Prefers partial shade and moist well-drained acid soil, but tolerates full sun, poor soil and even clay. pH adaptable. Excellent naturalized as a specimen or in groups. Reddish-purple fall color. Susceptible to golden canker: when dormant, prune out diseased branches to prevent spores spreading to the trunk. Native to eastern U.S. Z3. (1-3')

7567A Pagoda Dogwood, \$20.50

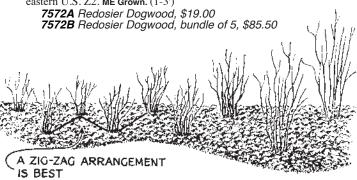
C. amomum Silky Dogwood 8-12' x same. Large rounded long-limbed shrub best suited for naturalizing borders, streams and wetlands. Effective for erosion control, wildlife or pollinator habitat. Medium-fast growing. Creamy white 2" cymes bloom in late spring followed by dark blue berries midsummer. Glossy deeply veined green foliage turns dark purple in fall. Maroon bark is visible in winter. Whether it's the flowers, fruit, or even just the foliage, Silky can be a charming addition to natural areas and songbirds love the berries. Not considered quite as ornamental as other dogwoods, but planted along a woodland trail in dappled light is an eye-catching sight. Prefers moist well-drained soils but will tolerate wet locations. Does not like overly dry areas. Suckers and spreads. Sun or partial shade. Native to eastern U.S. Z4. (1-3')

7568A Silky Dogwood, \$16.00

C. sericea Redosier Dogwood 8-10' Formerly called *C. stolonifera*. Bright red stems are a favorite sight from late fall through early spring, before the foliage emerges. Broad loosely rounded multi-stemmed shrub spreads freely by stolons (underground stems) and forms excellent hedges



conditions. Sun or partial shade. Fast growing and easy to transplant. To improve stem color, prune out older stems in the spring. Native to eastern U.S. Z2. ME Grown. (1-3')

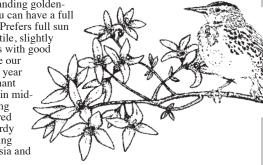


Diervilla lonicera Northern Bush Honeysuckle
2-4' x 2-5' Also called Dwarf Bush Honeysuckle.
Don't be fooled by the common name: it isn't
really a honeysuckle. Long pointed lustrous dark
green leaves emerge with a hint of bronze. Five
little bright yellow petals on each tubular flower
curl open and away, an invitation to insects,
hummingbirds, butterflies and garden tourists.
A favorite of the bumblebee. Clusters of flowers
form in the axils of new growth. Extendedseason bloomer. Excellent for erosion control or
mass planting. Full sun to light shade. Tolerates
even the poorest soils, but if you want it to naturalize,
give it rich moist soil. Pest and disease free. Native to
eastern North America. Z3. ME Grown. (1-3')

7574A Northern Bush Honeysuckle, \$19.00 7574B Northern Bush Honeysuckle, bundle of 5, \$85.50

Forsythia x ovata 'Northern Gold' Forsythia 6-8' x 5-7' Bred by Felicitas Svejda, Ottawa, Canada, 1979. One of the earliest forsythia cultivars to flower in spring. Upright form with yellow-grey branches clad in healthy rich green foliage. Northern Gold has not only the bud hardiness necessary for flower production above the snow

line, but also outstanding goldenyellow flowers. You can have a full bloom every year! Prefers full sun and moderately fertile, slightly acid to neutral soils with good drainage. We create our first bouquet of the year by harvesting dormant forsythia branches in mid-February and forcing blooms indoors. Bred from *F. ovata*, a hardy dependably blooming species native to Asia and Europe. Z3. (1-3')



7576A Northern Gold Forsythia, \$20.00

Hamamelis virginiana Witch Hazel 8-20' x same. A small irregular rounded fall-flowering medicinal tree or large shrub. Quirky ²/₃" yellow flowers appear in early to mid-November. Oval hazel-like textured foliage turns brilliant golden-yellow in fall. Makes a soothing astringent with a seemingly endless number of uses from controlling acne to soothing diaper rash, poison ivy, chicken pox and browntail moth rashes. Most preparations involve simply brewing tea from the leaves and/or twigs. "Witch" is said to refer to the odd flowering time or maybe it's because dowsers like to use the interesting forked branches to "witch" for water. Full sun or shade. Prefers moist acid soils; avoid dry spots. No pests or diseases, does well with very little care. We do nothing



Cultivars and varieties

Cultivar is short for 'cultivated variety.' A **cultivar** is a plant that has been bred; it does not occur naturally in the wild.

A **variety** is a plant that occurs naturally in the wild, is chosen for commercial propagation and maintains its genetic characteristics.

In the nursery trade, the terms 'cultivar' and 'variety' are mistakenly used interchangeably. We do it sometimes, too. Both cultivar and variety names follow the botanical name (*Genus species*) and are enclosed in single quotes (e.g. *Malus domestica* 'Black Oxford' or *Philadelphus lewisii* 'Blizzard'.)

In the tree and shrub world, most cultivars and varieties are propagated clonally by cuttings or grafting. When there is no variety or cultivar name after the botanical name, the plant is most likely grown from seed. We often refer to these as "the straight species" of a plant, or as **seedlings**.

Lindera benzoin Spicebush 6-12' x 8-12' Large rounded multi-stemmed native shrub suited to naturalizing in moist or wet areas, singly or in groups. Soft-yellow flowers early in spring followed by small clusters of glossy red berries (drupes) by mid to late summer. Blue-green foliage turns golden yellow in fall. Edible berries and medicinal twigs and bark. Scratch the berries, foliage or stems and you'll know how it got its name: all three have a delicious lemony spicy scent and can be used as a native alternative to allspice. Leaves, twigs and fruit used in teas. Attracts bees, birds and butterflies, particularly the strange and dynamic Spicebush Swallowtail (*Papilio troilus*) larva with its stunning false eye spots. Prefers moist well-drained neutral or slightly acidic soils. Often found in full or partial shade, but at its showiest in full sun. These are unsexed seedlings: male and female plants required for fruit so plant several for best results. Only the females bear red fruit. Native to eastern U.S. Z5. (1-3')

7582A Spicebush, \$20.50 **7582B** Spicebush, bundle of 5, \$92.25

NEW! Magnolia virginiana Sweetbay Magnolia 10-20' x same. Fragrant creamy white 2–3" waxy blossoms in midspring sometimes

rebloom in midsummer. Bright green oblong leaves with silver undersides are semi-evergreen in the North where the plant's form tends toward a large open irregular multi-stemmed shrub; in the South it grows into a tall evergreen shade tree. The impressive specimen we saw at the Arnold Arboretum held its leaves all winter. Pink "fruits" hold bright red seeds and adorn the tree in fall. Happy in acidic damp soil, like at a pond edge, but adaptable to well-drained areas.

too. Tolerates clay and air pollution. Full sun to part shade. Native to the southeastern U.S. mid-Atlantic region. Z5. (1-3')

7584A Sweetbay Magnolia, \$17.50

Planting for Hummingbirds

When the first hummingbird of the year whizzes by you at light speed, it feels like a rite of spring. Here in the Northeast, the ruby-throated hummingbird is our seasonal denizen who arrives from its long commute from the tropics ravenous for high-sugar nutrient-dense plant nectar. Those red hummingbird feeders are okay, but why use plastic when you can plant a hummingbird habitat? (If you are using hummingbirds feeders, please learn about routine cleaning and care so they do not become vectors of disease and pathogens.)

Planting perennials that feed hummingbirds upon their return and throughout the summer is the best way to ensure happiness for the hummingbirds and many whimsical sightings for you. Red flowers get a lot of hype, as hummingbirds can indeed identify the color red; however, there are many nectar-rich flowers hummingbirds will feed on with their long tongues. Some native species we strongly recommend:

Aquilegia canadensis Wild Columbine
Asclepias incarnata Swamp Red Milkweed
Asclepias tuberosa Butterfly Weed
Chelone glabra White Turtlehead (on our website)
Diervilla lonicera Northern Bush Honeysuckle
Lobelia cardinalis Cardinal Flower (on our website)
Monarda didyma 'Panorama Reds' Bee Balm
Monarda fistulosa Wild Bergamot
Penstemon digitalis Foxglove Beardtongue
Penstemon hirsutus Hairy Beardtongue

Other perennials identified as beneficial to hummingbirds by conservation groups, ornithologists, and plant and ecology specialists include **Northern Blue Flag**, **Solomon's Seal** and **Marshmallow**.

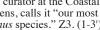
While some cultivars may not be the most nutrient-packed snack for our fast friends, we've seen hummingbirds go bonkers for **Pulmonaria** in the early spring, and **Hostas** in midsummer. And the tubular red flowers of 'Dropmore Scarlet' Brown's Honeysuckle and 'Lucifer' Crocosmia are always a hit.

Plant these perennials and experiment with others to create a hummingbird habitat that they'll return to year after year.

Philadelphus lewisii 'Blizzard' Mockorange 4-5' x 3-4' COPF intro, Alberta, Canada. Medium-sized coarse upright loosely arching ornamental blooming shrub. A "blizzard" of sweet citrusy fragrance from pure white slightly cupped 4-petaled blossoms for up to four weeks in late spring, after the lilacs fade. A spray

of golden yellow anthers attractive to bees and butterflies accents each flower. Species was named after Meriwether Lewis who noted it in 1806 during the Lewis and Clark Expedition. Prefers moist rich welldrained soils but will grow well in most conditions. Full sun to partial shade. Since blossoms form on prior year's growth, best to prune after flowering. Similar to old-fashioned European P. coronarius, but this species is native to North America. William Cullina, plant curator at the Coastal Maine Botanical Gardens, calls it "our most ornamental Philadelphus species." Z3. (1-3')

7586A Blizzard Mockorange, \$18.00



Prunus maritima Beach Plum 6' x 5-6' Rounded dense suckering shrub found along ocean beaches, New Brunswick to the Carolinas. In spring beautiful showy white blooms cover the dark branches. Purplishred (or occasionally orange-yellow in some specimens) 1/2-1" fruit in late summer. Excellent jams, sauces and especially jelly. Easier to grow than dessert and culinary plums and some seedlings have surprisingly good fruit for fresh eating. Although typically found growing naturally in poor sandy soils, the plants thrive in well-drained fertile soils with a pH of 6-6.5. Additional fertilization will increase productivity. We suggest an annual 5-gallon bucket or two of compost per plant. Prune to maintain an open center for good light penetration, or train as more of a singlestemmed dwarf tree. Plant about 5' apart. Pollination requirements are uncertain—we recommend planting at least two for good fruiting. Salt tolerant! Native to eastern North America. Z3. ME Grown. (1-3')

7588A Beach Plum, \$21.00 **7588B** Beach Plum, bundle of 5, \$94.50

Pruning Flowering Shrubs

• Summer-Flowering Shrubs should be pruned in late winter or early spring, before the new wood

begins to grow. These shrubs blossom on the new wood they produce in the spring.

• Spring-Flowering Shrubs form flower buds in the summer, after they are finished blooming. Prune them immediately after



their bloom is over. If you wait and prune them in the winter or following spring, you will likely remove many flower buds.

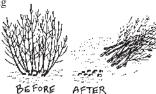
- A common error is to prune or shear shrubs straight across the top. This encourages top-growth and the lower part of the shrub becomes woody and unsightly with less foliage. Proper pruning promotes growth at the base of the shrub.
- · Observe your plants and see what they need. Some trees and shrubs benefit from aggressive pruning each year and might even respond well to being cut all the way back to the ground; others will respond by delaying fruit or blossom. Some plants thrive with little or no pruning.





· Overgrown shrubs with little foliage near the base may be rejuvenated by cutting canes down to the ground in early March, even though early blooms may be sacrificed that year. They will send forth new shoots in late spring

and will be bushy with foliage clear to the ground. Pinch off tops when the desired height is attained. It usually takes two to three years to rejuvenate shrubs and hedges completely.



A selection of pruning tools and books are available from our Seeds & Supplies catalog and on our website, fedcoseeds.com

Prunus tomentosa Nanking Cherry 6-10' x same. Broad dense fruiting shrub, becoming open and attractively irregular. One of the earliest flowering fruits every spring. Pink buds open to masses of fragrant white 3/4" flowers. Deeply veined light green foliage with very fine fuzz (tomentum) lining each vein underneath. Excellent hedge plant: an edible landscape crop that produces a lot of tasty fruit! Variable 3/4" fruit in early summer ranges in flavor from mild to tart and in color from scarlet to clear red to pink and sometimes even white. Eat fresh or frozen. Excellent jelly and fruit leather. Covering plants with netting will deter birds from robbing your crop.
Prefers full sun in well-drained soil. **Plant two** or more for pollination. Susceptible to brown rot. Native to China and Japan. Z3. (1-3')

7589A Nanking Cherry, \$18.00 **7589B** Nanking Cherry, bundle of 5, \$81.00

Rhus aromatica Fragrant Sumac 5-6' x 6-8' Glossy blue-green trifoliate leaves emit a pleasing aroma when crushed: maybe lemony or musky but also a tad minty. Phenomenal fall colors when leaves turn orange to brilliant scarlet. Throughout summer, young leaves emerge reddish-pink, "teenage" leaves are lighter green, and older leaves mellow into a deep green, creating a lovely display. Beautiful small bright yellow flowers in spring draw in butterflies. Small red fuzzy fruit clusters on females attract birds. Low irregular form will sucker from the roots, and branches touching the ground will root themselves to quickly produce a colony; useful in erosion control on banks or hillsides. Dioecious: these are unsexed plants; multiples needed for fruit. Easy to transplant, adaptable, prefers acid soil, sun to partial shade. Native to eastern U.S.

7590A Fragrant Sumac, \$19.00 7590B Fragrant Sumac, bundle of 5, \$85.50

Angry at Birds

As much as we love birds, and even cater to them with plantings that offer them food and shelter, we also have occasion to get mad at them in the garden and orchard. Our feathered friends can start to feel like adversaries when we're trying to grow fruit for harvest.

If you grow honeyberries (haskaps), you know that to reach their peak flavor they need about a week of extra ripening time after turning blue. Well, it seems the cedar waxwings also know this. Last summer we waited and waited for a loaded honeyberry bush to sweeten up, tasting one or two each day. When the day finally came to pick them all, we discovered the bush had been picked clean. Not a speck of blue in the bush or even on the ground. A few weeks later, same story with the

Nanking cherries. *Drat!*Then there's the orchard trees and woodpeckers. It's pretty common to see the peg-board pattern of sapsucker damage on the bark of fruit trees. For the most part those pecks heal over, but they can also weaken the tree and create entry points for disease. Bummer!

Cute perching birds pose a risk to vulnerable young grafts when they land on a tender whip and snap it right off. While typically not the bird's fault, we've also heard reports of a juvenile flock of (conspiracy of, treachery of, unkindness of) ravens having a blast pecking and snapping young grafts to the horror of the orchardists. Rascals. Arghh!

Yes, birds are great, but sometimes we need to deter them. A few ideas:

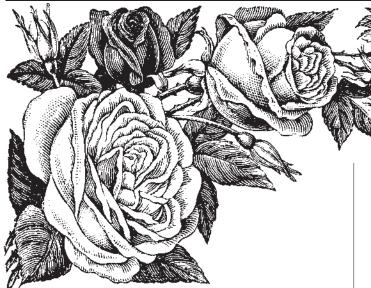
- In some situations, you may have to net your bushes and trees if you want any fruit for yourself. (Easy-Drape Rip-Stop Netting is available on our website.)
- It's obviously not practical to net everything. One local U-pick fruit farm hangs a radio in a tree to scare birds off with loud rock music
- Scary balloons and flickering tape sometimes work. (Bird-Scaring Balloons and Flash Tape available on our website.)

As our trees mature and provide more and more high-quality fruit each year, another answer has presented itself: Abundance. Some of our mulberry trees are so loaded with fruit this year we couldn't possibly get to it all, especially at the tops of the trees. So we pick all we can handle, all we can reach, and the birds feast on the rest. Everyone's fed!

Plant a lot, and share what you got.



ROSES - \$23.25 EACH (EXCEPT WHERE NOTED)



Rosa spp.

For millennia, roses have beguiled humans. The first cultivation of these flowers dates back more than 5000 years in China. Fossil records suggest that roses may have been around for more than 30 million years. Regarded as the ultimate icon of love, grace, beauty and elegance, roses continue to be the subject of art and poetry across the world.

Leaves, petals, hips and roots all have medicinal properties. Rose hips (fruits) are rich in vitamin C and make a wonderful "rose apple" jam; rose-petal elixir calms the nerves and lifts the spirit.

Each year, we aim to offer a diverse selection of unusual and antique varieties. Unlike hybrid tea roses, these roses are all vigorous, cold hardy and on their own roots. The antique varieties grow slowly compared to newer hybrids and tend to be more difficult to propagate. You may notice when you receive your order that some of these roses have small root systems and little top growth. Don't be alarmed by this—it's just the nature of these old varieties. We can attest that they perform just as well as the others.

Roses are native to temperate regions throughout the world. (9-18" stock, except Carolina Rose.)

R. alba 'Mme Plantier' 5-6' x same. R. alba hybrid. Unknown parentage, likely R. alba x R. moschata, 1835. Highly fragrant alba with clusters of highly double 2–3" pale white blossoms, sometimes containing more than 200 petals per flower! Buds are blushed with pink and open to entirely white. Blooms profusely end of June into early July in central Maine with no repeat. Medium-green smooth foliage on upright arching stems with few thorns. Benefits from support or trellising but we prune ours back each year and keep it freestanding. Grows vigorously upright then billows out with age. In warmer climates it can grow 20' into a nearby tree, though more often seen as an arching shrub rose in the North. We've been growing it for a few years now and anticipate June when we can sink our noses deep into the aromatherapy of these soft petals. Z4. #7600A

Growing Roses

Soil: Well-drained soil with a good amount of organic matter.

Sun: Full sun, but some will tolerate part shade. Pick a site with good air flow, but avoid sites with cold northwest winds.

Spacing: 4-6' apart.

Planting: The roots of roses don't spread beyond the original hole, so dig a bushel-sized hole, as deep as 2' or more. Mix soil with liberal quantities of well-rotted manure and compost. We recommend amending soil at planting time with our **True Love Rose Fertilizer** (available on our website).

If roots are tangled, cut them back to 6" or so and spread them out in the planting hole. Prune new plants back to 3–5 of the best canes. Keep roses well mulched to retain moisture and reduce weeds. Add 2 shovelfuls of compost to each crown annually in late fall.

Pruning: Other than clipping out any dead wood, shrub roses and climbers require little pruning.

R. 'Canadian Shield' 4-5' x 3-4' R. floribunda complex hybrid (RSMY8 x Frontenac) Dyck intro, Vineland Res Stn, Ontario, 2017. Collaboration between Vineland Research Station and the Canadian Nursery Landscape Association has led to an extremely hardy true deep red rose that has northern rose lovers talking. Mildly fragrant 3" double blooms hold their color through full blossom. Continuous flushes of blooms midsummer till frost. Deep green glossy foliage is highly resistant to black spot and powdery mildew, even late into the season. Upright form. First rose in the 49th Parallel Collection released after decades of

breeding. Canada Blooms' 2017 Plant of the Year. Z3. #**7591A**

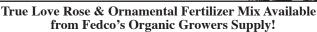
R. carolina Carolina Rose 2-4' x 5-10' Sometimes called Pasture Rose. Our native eastern species found in every state east of the Great Plains. Single light pink 5-petaled flowers emerge May-June. Vigorous spreading canes are ideal for stabilizing banks, slopes and natural hedges. Even among fancier roses, the simplicity of this one is just right. Small bright red hips in fall. Often seen in colonies along streams, roads and open woods throughout New England. Can easily be kept in check by mowing around the edges, but runners do pop up-plant away from areas where you walk barefoot. Highly adaptable to both wet and dry locations. Full sun to partial shade. This species is much more resistant to foliage diseases than other roses. Z2. (1-3')

7601A Carolina Rose, \$22.00 **7601B** Carolina Rose, bundle of 5, \$99.00

R. x centifolia muscosa 'Henri Martin' 4-5' x same. Parentage unknown. Laffay, France, 1863. Famous old French rose also called Red Moss. Gorgeous fragrant crimson double blooms cover highly productive arching canes. Loaded with flowers June-July. Moss roses are a sport from a 17th-c. mutation on centifolias that caused tiny globular glands on the calyx and sepals that looks like...moss! Attractive rough dark green foliage on very thorny stems. Upright sturdy canes look their best when trained or supported over stone walls, fences and posts. Small deep orange hips. Z4. #7602A

R. cinnamomea 'Plena' Cinnamon Rose 4-6' x same. Ruffled 2" pink blossoms with a mildly spicy sweet fragrance. Rare and mysterious species rose, most likely brought to North America by early settlers from France. Commonly found near old abandoned farmsteads throughout Maine and New Brunswick. We are offering the more commonly seen Plena, which has a double flower, unlike the straight species which is single. Among the earliest feral roses to flower in Maine, seen late May and early June on some of the old back roads. Vigorously suckering, low growing and very thorny. We look forward to this lovely rose each year. Plant it where it has plenty of space to sucker and spread and

do its thing without pricking you. Highly adaptable. Z4. #7603A



Our house-blended mix (2.5-6-3) is formulated to feed both soil and plant to encourage healthy foliage and lush colorful blooms. Roses are particularly high-maintenance garden partners (their preferred love language is gifts of fertilizer), but other ornamentals will also appreciate this mix if they look like they need a little tender loving care.

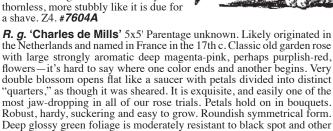
Contains fish bone meal, alfalfa meal, bone char, gypsum, Azomite, sulfate of potash, epsom salts, kelp meal and humates. Supplemented with endomycorrhizae to improve the roots' ability to take up nutrients, water and oxygen. Apply ½–1 cup per plant once the soil has warmed (approx. 10 cups per 5-lb bag), or 50–60 lb per 1000 sq ft.

Find it in 5-lb and 45-lb bags at fedcoseeds.com



R. gallica 'Belle de Crecy' 2-4' x 3-4' Hardy, France, 1829.

Origin and parentage unknown. Low-growing rose with strongly scented flowers Crimson buds open pink and gradually turn magenta-violet then partially soft silvery grey from the outer petals inward around a distinct green eye. Fully double 2" flowers are in singles and clusters and as they open, the petals relax outward to create a little dome, like a mini Benary's Giant zinnia. You really couldn't squeeze any more petals into this blossom! In *Old Garden Roses*, James Russell notes, "...the pale reverse of a few incurving petals show like light reflected from the waves of a stormy sea." Took the words out of our mouths. Dark green leaves. Nearly thornless, more stubbly like it is due for



R. 'John Davis' 6-8' *R. kordesii* x (Red Dawn x Suzanne o.p.) F Svejda intro, Canadian Explorer Series, AAFC, Morden Stn, 1986. From July through September this everblooming rose is seldom without numerous large clusters of 3–4" semi-double deep pink blossoms exuding a strong spicy fragrance. Up to 40 petals per flower! Arching red canes can easily be trained upright as a short climber on a fence or arbor. Glossy green foliage turns from green to red as it matures and is resistant to black spot. Often produces flowers the first year it is planted and will bear abundantly in years after. Very hardy to below –20° and rarely winter kills. Disease resistant. Z3. **#7594A**

foliar diseases when given sufficient air flow. Z4. #7605A

NEW! R. 'Polestar' 16' climber. *R. beggeriana* hybrid. Bred by H. Wasastjerna in Grankulla, Finland, 1937. Sometimes listed by its Finnish name **Polstjärnan**. Rambling form with small semi-double white clustered blooms that hold up in the vase. Fragrance is not noteworthy. Vigorous climber, will want a trellis for support. Very, very cold hardy—the original rose withstood a winter that killed many fruit trees and left the rose with roots in standing water that froze! It is still a highly sought-after component in hybridizing hardy climbers. Will tolerate partial shade. Z3. #7596A

R. 'Queen of Denmark' 4-5' x same. Unknown origin and parentage, likely *R. alba* x Damask hybrid, 1826. Also called **Konigin von Danemark**. One of the oldest and most beautiful of the antique shrub roses. Highly fragrant medium-pink very double quartered blossoms appear to be overflowing with petals. Cupped 2–3" blossoms are similar to some of the *gallicas* we offer and darker pink than most *albas*. Coarse grey foliage. While most *albas* aren't too thorny, propagator Bob Osborne recommends putting on the gloves for this one. Z3. **#7597A**

Old-fashioned Roses

Roses grown in Europe before 1800 are referred to as "Old World" roses, including the cultivars of *Rosa gallica*. Their pink colors ranged from the deepest dark purple of 'Cardinal de Richelieu' to a faint pink blush like that of 'Chloris'. There were no reds among these antique roses and, though rich in fragrance, they bloomed only once per season. In the late 1700s red roses with repeat blooming tendencies were introduced from China, shifting the focus of rose breeding toward those traits. Demand for the aromatic and medicinal qualities of the Old World roses declined, supplanted by flowers that lasted long through the season. The hybrids created since the 1820s are called "modern" roses and are much more commonly seen in gardens today.

R. gallica is considered the oldest rose, steeped in history, legend and myth, and still grows wild in some places in the Caucasus, the mountainous region between the Black and Caspian seas, where it originated. Its exact origin is unknown but it can be traced back fourteen centuries when it was considered a symbol of love by the Persians. The aromatic petals hold their scent better than any other rose and have long been considered medicinal. This species contains hundreds of different cultivars, some very similar and others unique. Most have compact shrub habits and are generally very hardy. Most modern-day roses are presumed to be descendants of the gallicas.

Rosa rugosa hybrids We no longer offer straight *Rosa rugosa* seedlings. Many wonderful old and new roses carry *rugosa* in their parentage (sometimes of an undetermined amount), and we have not observed these hybrids to be harmful to the environment. However the State of Maine legally requires us to include this statement: "R. rugosa: Invasive species, harmful to the environment. Do not plant in coastal environments, especially on or near sand dunes. Alternatives: Bayberry and red chokeberry."

R. r. 'Hansaland' 4x3' R. rugosa hybrid of undisclosed parentage. Kordes, Germany, 1993. Luminous red medium-large semi-double blossoms have a soft casualness in the way they arrange their petals around the center. Red doesn't quite describe the color—it's almost red with a chalky pastel pink wash, bathed in ethereal light. Its glowing allure will transfix you. Leaves are glossy. Not uncommon for tip damage to occur in winter; just prune that back and off it goes. Blooms on new and old wood, spring till frost. Quite prickly; handle with care. Mildly fragrant. Corn Hill Nursery Rose of the Year 2010. Z3/4. #7593A

R. r. 'Magnifica' 4-5' x 5-6' *R. rugosa* x Ards Rover. Dr. Walter Van Fleet intro, US, 1905. Large clusters of 3–5" loose double fuchsia flowers with showy bright stamens, spicy fragrance and 30 petals per bloom. Dense shrub with large glossy dark green foliage and a vigorous wide-spreading habit. Large orange-red hips. Very disease resistant. Walter Van Fleet (1858-1922) was a physician who dropped out of medicine at age 35 to follow his passion for plants. Twelve years later he introduced Magnifica, an unusual cross between a rugosa and Ards Rover (a fragrant red pillar rose from Ireland just introduced in 1898). From 1910 until his death, Van Fleet worked as a breeder for the USDA. Z4. #7607A

NEW! R. r. 'Nyvelt' 5-7' x 4-7' (*R. rugosa rubra* x *R. majalis*) x *R. nitida* Bred by Albert Arie Nijveldt of Boskoop, Netherlands, 1955. Large 4" pure white single very fragrant blooms grow in clusters and repeat all summer until the first frost. Buttery yellow centers are very accessible to pollinators. Bright green leaves and medium-sized orange-red hips for processing. Shrub form has more arching canes than its wild *rugosa* parent. Recommended for hedging. Very rare in the trade. Z3. **#7595A**

R. r. 'Souvenir de Philemon Cochet' 4-5' x same. Sport of rugosa hybrid Blanc Double de Coubert. France, 1899. Similar to its parent except for very double blooms. Highly fragrant large pure white flowers have the faintest pink in the center when opening. Repeat bloomer. Dark green foliage and no hips. Doesn't hold up long in a vase, but if you bring this rose inside, the incredible scent will fill the room. One of the most fragrant in our antique rose trials. Shrub is vigorous but contained. Z4. #7608A

Shrub Rose Collection

Rose Lover's Collection Five cold-hardy shrub roses, perfect for hedges or for showcasing as single specimens. Collection includes one each in a range of colors, from pink, white, mauve, crimson and purplered. No two roses will have the same color, and all will complement each other. Aesthetics matter here—we promise your roses won't clash! Plants will be individually labeled. With this collection, you'll save 10% on cost per plant. All hardy to Z3.

7809A Rose Lover's Collection, bundle of 5, \$103.50



fedcoseeds.com

Willow Salix spp.

The genus *Salix* comprises hundreds of different species of plants most commonly called willows but sometimes called **Osier** or **Sallow**. Willows grow all over the world. Some, like the weeping willow (see page 42), are towering specimens. Others are short scrubby bushes; willows growing in the arctic can be 100 years old but only 2' tall! Uses include ornamental landscaping, shade, basketmaking, erosion control, timber, fuel and medicine. All parts, especially the bark, contain salicin, used for relief of pain and fever for hundreds, or even thousands, of years. Aspirin is a synthetic analog of salicin. Willows feed local wildlife, insects and birds. We plant them near the orchard to provide early season forage for our native pollinators. All prefer sun and loamy wet soils, but are adaptable, easily transplanted and fast growing.

S. gracilistyla 'Mt. Aso' Japanese Pink Pussy Willow 6x6' Possibly a hybrid of S. gracilistyla x S. caprea. Male specimen selected in Japan by Dr. Tsuneshige Rokujo. Pink buds open to electric pink catkins for a stunning early spring display. When the plants in our stark warehouse began to reveal their darling daubs of pink, the crew gathered round and cooed as if we'd discovered baby bunnies. Excellent in cutflower arrangements. Foliage opens pink and turns rich blue-green with prominent veins and soft fuzzy undersides. Catkins form on second-year wood. Coppice just after flowering to keep form pulled in and less rangy. Easy to maintain. Prefers full sun and sandy soils but will do fine in average or moist conditions. Z4. (12")

7664A Mt. Aso Pink Pussy Willow, \$20.00

S. purpurea 'Frances Red' Basket Willow 8-10' We grew these plants from cuttings we got from basketmaker Johnny Suderman in Ontario. He describes the plant as having long non-branching purplishred rods with blue-green leaves. When he soaks them for basketmaking, the stems turn "dark grey with some purple-red." This is his favorite willow for baskets. Once established, you can coppice it annually for a perpetual source of basketmaking material. Z4. (12")



Curly Willow Cuttings - online only!

Willow cuttings (12" long) can be poked directly into wet spring soil, leaving only a couple inches above ground to sprout. Can also be easily rooted indoors in water or potting soil. We ship these curly willow cutting in early spring, at the same time as scionwood (page 26).

Curly willows are great for quickgrowing and funky living fences. The squiggly rods are used in floral design or as wreath bases. Can be coppiced each year or left to grow into tall corkscrew trees. We offer cuttings of three varieties:

'Burgundy' Curly Willow - Bark is a gorgeous auburn.

'Super Curl Red' Curly Willow - Despite the name, bark is yellow.

'Green' Curly Willow - Yellow-green bark



Lilac Syringa spp.

Lilacs have been a fixture in the New England landscape for generations. More often than not, when we find old apple trees, the ancient lilacs are not far away. The large rambling suckering shrubs continue to flourish each spring long after the buildings have disappeared and all that remains of homesteads are crumbling stone foundations. Why were the lilacs always planted just outside the kitchen door? On cold winter mornings, someone would clean out the wood stove and sprinkle ashes on the icy path to the backhouse, the woodshed or the clothesline. The earth outside the kitchen door became more alkaline, which lilacs love. For more Excellent alone or lilac cultivars, in hedges. Deep green glossy please check

heart-shaped foliage looks good all season. Intensely fragrant blooms in May. Flowers range from singles to doubles, pure white to the deepest purples, pinks, reds and lavenders. Bees and butterflies love them, too. Ornamental, edible (frittered

flowers), medicinal, and a great Mother's Day gift. (1-3') **S. vulgaris Common Purple** 12-15' x same. A mass of medium-light purple blooms every year. A magnificent New England sight for nearly 400 years and still one of our most popular ornamentals. When a friend looked out John Bunker's living room window and thought he had some fancy new cultivar, John chuckled, "Nope, just the good old common purple." Never disappoints. Suckers freely, the best lilac for a spreading hedge. Z3.

7618A Common Purple Lilac, \$20.00

S. x tribrida 'Miss Canada' 6-9' x same. S. x josiflexa Redwine x S. prestoniae Hiawatha. William Cumming intro, Morden Ag Res Ctr, Morden, Canada, 1967. Another outstanding Preston hybrid in the class of later-blooming lilacs. Masses of dark reddish-pink buds open to lovely fragrant single deep pink blossoms after the vulgaris lilacs have faded. The florets are unique in shape, like little trumpets clustered along the flower stem. Plant singly as a specimen, preferably near the entrance to your home, or in a hedge for the butterflies and other nectar-loving creatures. Like other Prestons, can be pruned to tree form; won't sucker and eat the building. Z3.

7619A Miss Canada Lilac, \$22.00

Growing Lilacs

Soil: Adaptable. Prefers well-drained moderately rich soil; sandy gravelly loam is perfect.

Sun: Full sun, but will tolerate part shade.

Planting: Add shovelful of wood ash or lime to hole at planting time, then add another shovelful of either every 3 years. A yearly mulch of manure or compost will encourage spectacular annual blooming. Pink, lavender and blue lilacs color up best in soil with a neutral pH.

Pruning: If you choose to prune your lilacs, do it right after flowering. (Late-season pruning removes next year's buds.) As the plant matures, prune off a quarter of the new suckers and the oldest growth (a few main stems each year).

Some growers prefer to keep the plant low and bushy. Do so by "topping" it off every year: prune any upright branch back to a junction with a lower branch. Others prefer a tall tree-like form. Our friends Philippe and Danielle have let theirs soar to 8' or more, removing the lower branches and creating a magical walkway in the process. Lilacs are more than willing to cater to your own personal vision. Have fun! No need to cut off spent flowers except for appearance.

Lilac isn't blooming?

- Too shady: lilacs need sun to form blossoms.
- Over-pruned: pruned too late, removed buds. Also, some plants respond to excessive pruning by putting their energy into vegetative growth instead of flowering.
 - Too wet: lilacs like well-drained soil.
- Over-fertilized: lilacs will bloom well without assistance. Too much fertility can lead to more vegetative growth and inhibit bud formation.



Spiraea tomentosa Steeplebush 2-4' x same. Seeing this bonny little plant makes a heart leap with joy. Seriously, it's adorable, and we and the pollinators are obsessed with it. A must for every butterfly garden. Rosy pink steeples emerge as terminal spikes about 4-6" tall, appearing mid-late summer and lasting at least a month. Foliage is medium green, serrated with woolly undersides. Easy to grow. Lovely en masse. Likes average acid moist soils but not picky. Full sun or part shade. We've seen it emerge in newly cut woodlots on dry soil and thriving on pond edges, as single canes or in clumps with multiple blooms. No serious pest or disease issues. Native Nova Scotia to Georgia and inland. Z3. ME Grown.

7615A Steeplebush, \$19.00 **7615B** Steeplebush, bundle of 5, \$85.50

Viburnum cassinoides Northern Wild Raisin 5-6' x same. Also called Appalachian Tea, Raisinberry or Witherod (pronounced

withe-rod, not wither-rod.) Rounded arching dense suckering shrub. Creamy white flowers with yellow stamens on 2-5" flat-topped cymes bloom from spring to early summer. Highly desired for its edible fruit, which turns from green to pink to red to blue before finally turning black in September. Fruiting clusters feature several colors at the same time. Best eaten when nearly dried out on the branch, if you can get to it before the birds! Foliage, once used in tea, emerges bronze or purple tinted, turning dark green when mature and then orange-red, dark crimson and purple in fall. Very rugged: adapts to dry or wet sites. Full sun to part shade. Plant multiples for best fruit set. Z3. (9-12") 7621A Northern Wild Raisin, \$24.50

Viburnum leaf beetle (Pyrrhalta viburni) has become a problem in some areas. The larvae overwinter on twigs and can defoliate shrubs in spring and early summer. They seem to prefer

7621B Northern Wild Raisin, bundle of 5, \$110.25

Arrowwood, but we have seen them do a number on Northern Wild Raisin and Nannyberry. Prune out and burn any egg-infested twigs in early spring before your shrubs are leafed out. Spraying with Spinosad in late April or early May when the larvae first emerge can also help. (Monterey Garden Spray is a Spinosad available from our website.)

Timing is key—spraying eggs or adult beetles is less effective.

GROUNDCOVERS

You'll find more groundcovers, like Canadian wild ginger, thyme, geranium and arnica, in the herbaceous perennials, beginning on page 55.

Arctostaphylos uva-ursi Bearberry Also called Kinnikinick, Hog Cranberry, Mealberry, Sandberry, Mountain Box or Bear's Grape. Delicate low-growing beautiful glossy evergreen spreading groundcover. Beautiful in rock gardens One plant can sprawl to 15'. Small pinkish-white flowers in spring. Small bright red drupe-type berries color up in late summer and persist into winter. Too insipid for fresh eating, but good fried with fish. Leaves are diuretic, astringent and antibacterial. Prefers poor sandy infertile acid soils, tolerates salt. Can be sensitive to root disturbance, thus finicky in transplanting and may be slow to establish. Set plants 1–2' apart. No need ever to prune or fertilize. Sun or partial shade. Native to North America and Eurasia. **Self-pollinating.** Z2. ME Grown. (1-gallon fabric pots)

7625A Bearberry, \$23.00

Calluna vulgaris Heather Magical, mythical and medicinal evergreen groundcover features a spread of flowers and foliage that change color throughout the season. Revered in the British Isles, important medicinally in teas, honey, liniments and ointments. First fermented a few thousand years ago, used in gruit, ale, and might be the original ingredient for the first whiskey. Branches used in thatching, bedding, basketry, rope and broom-making. Flowers attract bees, butterflies and moths, especially when planted in masses. Recommended for rock gardens and pathways or for opening the portals to the fairy world.

Shear every April for best bloom. Species native to the dry forests, heaths and bare grounds of Britain and Ireland. More recently naturalized in North America. (4" pots)

C. v. 'Firefly' 1-2' x 1-2' In early spring vibrant yellow-green foliage emerges followed by tiny orange-red flower buds in June. As the mauve flowers awaken from their buds in August, the overall visual effect is a rainbow tie-dye. Blooms linger into October, and maybe longer. Salmonred foliage turns dark brick-red in late fall through winter. So far, this is among our top favorites. Upright habit. Z4.

7626A Firefly Heather, \$11.00

C. v. 'Spring Torch' 12-18" x 18-24" Purplish-pink flowers July to October. Foliage is medium green with distinct red torch-like tips winter through spring, turning pink and cream in summer. Z4.

7627A Spring Torch Heather, \$11.00

Erica carnea 'December Red' Winter Heath 6-8" x 18" From a seedling raised at the RHS garden in Wisley, England, 1966. Also called Snow Heath. Especially distinct bell-shaped flowers emerge bright pink and mature to purple-red. Profuse blooms very early spring through April with repeat blooms in August. Mounded mat-like growth habit sprawls and crawls like slime mold, and just as pretty. Ours bloomed through a crust of snow for an explosion of flowers with bees of all kinds clambering for early nectar. Ericas have become a favorite of ours. You won't be able to resist the urge to pet it when you walk past. Super lowmaintenance. Plant en masse to create a magical carpet. Species native to the Alps and the British Isles. Z4.

7628A December Red Winter Heath, \$11.00

Growing Heather and Erica

Soil: Requires acidic well-drained soil.

Sun: Full sun to part shade. Sun and wind intensify their colors.

Spacing: Plant 18" apart. They'll spread

Planting: We recommend pine needles or softwood chips as an acidic year-round mulch.

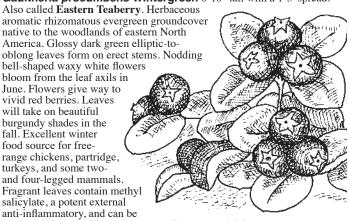


Shearing not only makes the plants look better but also makes them stronger and more resistant to fungal problems. If you're not up for shearing, heathers might not be for you.

Pruning Ericas: Lightly prune spent flower tips in spring after blooming. These don't require shearing like heathers.

more Groundcovers

Gaultheria procumbens Wintergreen 6-10" tall with a 1-3' spread.



used to make a poultice or massage oil to ease arthritic pain and sore muscles. Designated Maine's State Herb in 1999. Plant 16" apart in dappled shade in moist but not boggy woodland soil. Self**pollinating.** Z3. (31/2" pots)

L7629A Wintergreen, \$10.75 **L7629B** Wintergreen, bundle of 3, \$29.00

American Cranberry Vaccinium macrocarpon

Dense low lustrous evergreen groundcover, reddish purple in fall and loaded with large red berries. Once established, makes a beautiful and edible "lawn." Bitter and alkalizing effects make it a common remedy for bladder infections. An excellent source of vitamin C. Native to northeastern U.S. and Canada.

Handpick or rake like blueberries before hard frost. Use fresh, freeze or store in a cool basement or root cellar for months. Commercial operations flood fields for frost protection and harvesting convenience, but this is not necessary in home plots. Easy to grow; pest and disease resistant. Z2. (6" pots)



V. m. 'Blushing Moon'™ Selected from a seedling John Harker found growing in a bog on an island off the coast of Maine in 1993; introduced in 2003. Berries are considered albino, having a red blush on a golden-white background at harvest. The fruit is smaller than Stevens with higher yields per shoot and strong recurring flowering the following year. Makes clear juice. Sauce is amber. Long life in cold storage, up to 6 months. ME Grown.

7630A Blushing Moon Cranberry, \$23.00 7630B Blushing Moon Cranberry, bundle of 5, \$103.50

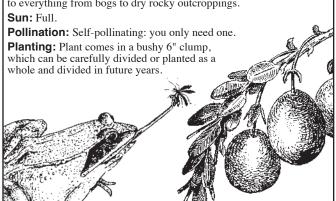
V. m. 'Stevens' This is the red cranberry of holiday sauces, bread, juice and jelly. ME Grown.

631A Stevens Cranberry, \$23.00

7631B Stevens Cranberry, bundle of 5, \$103.50

Growing Cranberries

Soil: Prefers acidic cool moist soil high in organic matter; adaptable to everything from bogs to dry rocky outcroppings.



LINGONBERRIES - \$22.75 EACH

Lingonberry V. vitis-idaea

Also called Foxberry, Cowberry, Mountain Cranberry. Vigorous shallow-rooted spreading groundcover is related to blueberries and cranberries. Bright red glossy nutritious fruits are wicked tart until dead ripe, then have excellent flavor, richer and less astringent than cranberries. Can be eaten fresh but primarily used in sauces, jams, syrups, fruit leathers, juices and wines. Stores up to 2 months in the fridge. Small shiny dark green foliage is quite lovely. Adorable tiny bell-shaped white flowers in spring attract a plethora of pollinators. Extremely popular in Scandinavia and now catching on in the U.S. Ripen in late summer but are best after a frost. Can produce 1-2 lb per plant for up to 20 years.

Native to circumpolar boreal forests. Incredibly tough and very hardy. Z2. All are ME Grown. (1-gallon fabric pots)

V. v.-i. 'Erntedank' Up to 12" tall. Albert Zimmer intro, 1975. Collected in a wild heath near Uchte, Germany. Heavy yields of small- or mediumsized berries. #7632A

V. v.-i. 'Erntesegen' 12-15" Also collected by Zimmer from a wild German heath. High-yielding plant produces very large berries. #7633A

V. v.-i. 'Linnea' 5-9" Swedish U of Ag Sciences intro, 1999. Newer cultivar selected from an open-pollinated seedling of Sanna, a wild strain. Strong producer of medium-sized berries. #7634A

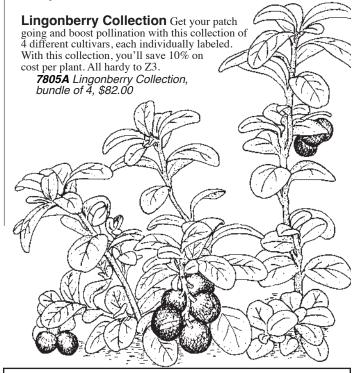
V. v.-i. 'Magenta' 12-15" Swedish U intro. Vigorous cultivar produces large purplish-red berries. Selected for high yields. #7635A

V. v.-i. 'Red Sunset' 8-15" Hartmann's Plant Co intro. Mediumto-large firm flavorful berries. Considered one of the most vigorous cultivars. #7636A

V. v.-i. 'Regal' 4-8" WI-108, WU intro, Madison, WI, 1994. From openpollinated seed collected in southwest Finland. Produces firm smallto-medium berries with good flavor. May bloom twice in one season. #7637A

V. v.-i. 'Ruby' 12" Swedish U intro. Medium-sized light red berries. Moderately vigorous with lots of spreading rhizomes. #7638A

V. v.-i. 'Sussi' 4-8" Sometimes spelled 'Susi.' Patented by the Swedish Agriculture Dept, 1985. Moderate yields of medium-to-large berries. Great pollinator for other varieties. **PPA.** #7639A



Growing Lingonberries

Soil: Prefers poor sandy acidic soils.

Sun: Full.

Pollination: Plant more than one variety to ensure good fruit production

Spacing: Plant 12–18" apart.



GARDEN ROOTS

No garden is complete without the classic triumvirate of Horseradish, Asparagus and Rhubarb!

Asparagus officinalis Asparagus A spring staple for millennia, may have originated around the Mediterranean Sea, perhaps in Asia Minor. The pharaohs, Greeks and Romans were all aware of its highly nutritious qualities and delectable flavor. The earliest known American horticultural advertisement, from March 1719, is for "English Sparrow-grass Roots." Uncut shoots become a light green feathery hedge, a beautiful backdrop to a flower garden. Honeybees love the dainty dangling flowers, which develop into bright red spherical seed pods on female plants. Occasionally non–spear-forming females will show up in a planting. Leave them be or rogue them out as you wish. (1-yr crowns)

A. o. 'Mary Washington' Heirloom variety developed by JB Norton, USDA, 1919. Large early green stalks tolerate heat well and demonstrate good resistance to rust. For those of you who know your antique asparagus, Mary was selected from Martha. Of the two, Mary is earlier, more vigorous and more uniform. A parent to many modern varieties and planted in American gardens for more than a century. Z3/4.

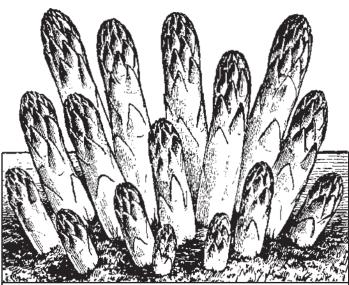
L7641A Mary Washington Asparagus, bundle of 25, \$35.00

A. o. 'Millennium' Developed by Prof. David Wolyn, U of Guelph, Canada. High-yielding good-quality tender green spears are long-lived and very cold hardy. We offered Jersey years ago, but the producer stopped propagating it. Millennium is on the rise as an excellent replacement, actually outproducing Jersey in northern Minnesota trials! Z3.

L7642A Millennium Asparagus, bundle of 25, \$40.00

A. o. 'Purple Passion' Developed from the Italian heirloom Violetto di Albenga. Brian Benson intro. Very large deep purple stalk with a creamy white interior. Purple asparagus is actually a type of white asparagus shown the light; grow under cover to get white spears. Sweeter and less stringy than its green counterparts, so you can use more of the spear. Tender enough to eat raw in salads. Purple turns green when cooked. Z4.

L7643A Purple Passion Asparagus, bundle of 25, \$37.50



Growing Asparagus

Soil: Requires fertile soil and high levels of phosphorus.

Sun: Full sun.

Planting: Plant 14–18" apart, 6–10" deep, in trenches 4' apart. Or dig your trenches somewhat deeper and fill the bottom with 4" of compost and rotted manure. For an extra fertilizer boost, use Fedco's own **Gungnir Asparagus Mix**. found on our website.

Lay plants with crowns up and cover with 2" of soil. Plants emerge very slowly. As young shoots grow, add soil gradually, just covering the shoots, until the trench is full.

In late fall, remove dead stalks and mulch with 3" of manure.

Second summer: Add lime, rock fertilizers and compost as needed. Control weeds but do not injure crowns.

Later years: Same routine but increase fertilizer. Be sure to leave some spears each year to grow stalks that will nourish the roots and give you more spears next year. Keep the bed weed-free and mulched heavily.

Harvest: We recommend caution in harvesting too much too soon. Before the third or fourth season, harvest only the largest shoots from vigorous plants so the young plants can establish themselves.

Armoracia rusticana 'Big Top' Horseradish Exceptionally vigorous perennial with large docklike leaves and spicy hot roots, savored for centuries for their culinary and medicinal qualities. Horseradish tea is said to be an effective control for brown rot on stone fruits. Deep taproot with numerous shallow runner roots. Choose carefully where you plant it because you may never get it all out. Even the tiniest root piece can produce a new plant. Leaves can be cooked as greens. Roots are traditionally harvested in the fall, but you can dig them anytime. Roots keep 3–4 months in the fridge. To use as an invigorating tonic, grate the fresh roots and mix with a little lemon juice or apple-cider vinegar and refrigerate. Use soon, then make more. Big Top is an especially disease-resistant variety. Prefers moist rich soil. Plant with the slanted cut down and the flat

side up, or just toss them in and watch them grow. Native to northern Europe. Z3. (roots)

L7640A Big Top Horseradish, bundle of 5, \$22.50

Rheum rhabarbarum Rhubarb Seedling Seedlings of heirloom variety 'Victoria'. Famous for early summer pie and wine, but also good in sauce, bread, juice, soup or cooked with meat and fish. Rhubarb's clumps of juicy acid leaf stalks were once a staple food. The root is a toning purgative herb traditionally used every spring for thousands of years. There are dozens if not hundreds of rhubarb varieties. May have originated in Siberia and been carried across Asia on the Silk Road to Turkey and then into Europe. Victorian cookbooks included rhubarb compotes, fools and charlottes. Brought to North America through the efforts of Ben Franklin and John Bartram. Low-maintenance; will continue through summer if flower stalks are removed and new leaves allowed to grow. Leaves are not edible.

From our trials, we've learned that rhubarb rarely comes true to type when grown from seed, a fact often undisclosed in the nursery trade. We are offering seedling crowns grown on a local organic farm. There will be variation within the crop. Some stalks will be green with deep



Growing Rhubarb

Soil: Well-drained rich slightly acidic soil.

Sun: Full sun.

Spacing: Plant crowns 2–4' apart in rows 3–4' apart.

Planting: Plant the top of the root division level with soil surface. Add a bushel of well-rotted manure or compost to each planting hole. When plant is established, fertilize liberally with compost and

balanced garden fertilizer every spring, as it's a heavy feeder.

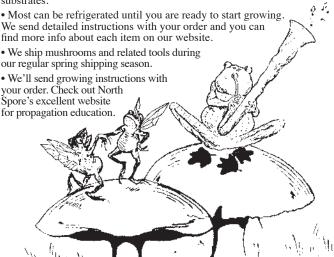
Harvest: Never remove more than two-thirds of the stalks from a plant. Two years after planting, harvest for no more than 4 weeks. Thereafter you can harvest for 8–10 weeks each year. Water during dry spells for extended season.

Dividing: Every 10 years or so, divide plants in early spring. Leave about ¹/₃ of the clump in place, and cut up remaining crowns into fist-sized pieces to replant or share with friends.

MUSHROOM SPAWN AND TOOLS - ONLINE ORDERS ONLY

In collaboration with North Spore Mushrooms, we're excited to help you get started on your own fungus garden!

• These products are all Maine-grown and organic, on natural substrates



Getting started

First decide if you want plugs, sawdust spawn or a kit for your mushroom-growing adventure.

Plug Spawn are small wooden dowels colonized by mushroom mycelium. These get hammered into drilled logs of an appropriate tree

Sawdust Spawn comes in a 51/2 lb loaf. Depending on variety, it can be crumbled into outdoor beds or used for larger-scale log inoculation projects. For logs, you'll need an inoculation tool.

Outdoor Log Kit contains 100 plugs, wax, a dauber, 5/16" drill bit and instructions. Everything but the log, drill and hammer!

Spray & Grow Kit Simply slice open the bag, and keep in a humid environment, like beside the kitchen sink. Mushrooms should start to produce "pins" within 2 weeks and will grow quickly. Each kit contains a 41/2-lb inoculated sawdust block that could produce up to 3 lb of mushrooms over 2-4 months. Instructions included. The easiest way to get into growing mushrooms. Makes a great gift.

Almond Agaricus Agaricus subrufescens. Related to the well-known portobello, cremini and button mushrooms but has its own unique aroma and flavor reminiscent of almonds. The species grows on composted material and thrives in warmer temperatures. A great addition for the home gardener, can be incorporated with compost into vegetable and perennial plantings and does well in season-extension structures. Available online as sawdust spawn only.

Chicken of the Woods Laetiporus sulphureus. Large bright orange fruit bodies have a texture reminiscent of chicken. Great in soups and stir-fries. Fruits all season from late spring into late fall. Prefers largediameter oak logs. For success with sawdust spawn, we recommend heat-treating and incubating log segments in **XL 0.5-Micron Filter Patch Bags Mushroom Grow Bags** (not needed for plug spawn). *Available* online as plugs and sawdust spawn.

Hen of the Woods Grifola frondosa. Also known as Maitake. Rich earthy semi-firm mushroom resembles a fat hen with leafy feathers and can weigh up to 20 lb. This tasty polypore has a flavor akin to eggplant. Will fruit only on oak logs. For success with sawdust spawn, we recommend heat-treating and incubating log segments in XL 0.5-Micron Filter Patch Bags Mushroom Grow Bags (not needed for plug spawn). Available online as plugs and sawdust spawn.

Lion's Mane *Hericium erinaceus*. Pure white cluster of icicle-like teeth. often found on beech and birch in the wild. When cooked, they have a consistency similar to crab meat. Naturally fruits during cooler months. Due to a slower colonization rate, a higher inoculation rate should be used. Flourishes on beech and maple, but can be grown on many different hardwood species, large- or small-diameter logs. Available online as plugs, sawdust spawn and kits.

NEW! Morel Morchella exuberans. Prized for their distinct nutty flavor and iconic fungal form. Challenging to cultivate and not intended for the novice grower. But fortune favors the bold! Use the outdoor bed method, and incorporate compost and wood ash into the substrate; this strain was harvested from specimens fruiting in a patch of recently burnt pitch pine. Available online as sawdust spawn only.

Nameko Pholiota nameko. Gelatinous orange-to-amber caps thicken soups and are popular in Japanese cuisine. Fruity earthy aroma pairs well with dark green veggies, red meat and miso soup. Produces in the cooler temperatures of fall. Grows on oak, aspen, maple, beech and other hardwoods. If planted in beds, use fresh hardwood chips. Available online as plugs and sawdust spawn.



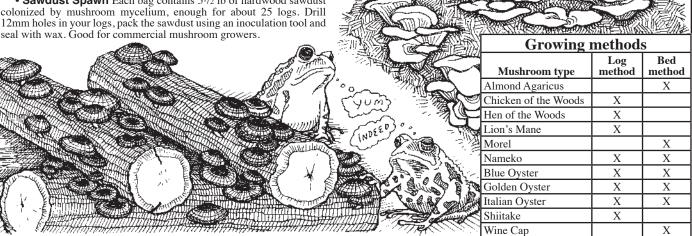
Growing Mushrooms

Log method Drill holes in logs, insert plug spawn or sawdust spawn, then seal with wax. Tools are listed on the next page. Be sure to choose an appropriate tree species for the mushroom (see variety descriptions). We offer these options for log inoculation:

• Plug Spawn 50 plugs will inoculate a single 4' long, 4" diameter log. Drill 5/16" holes (or 8.5mm with angle-grinder adapter) into your log, hammer in the plugs and seal the holes with wax. Plugs are an excellent choice for beginners. Plugs come in bags of 100 or 500.

• Sawdust Spawn Each bag contains 51/2 lb of hardwood sawdust

Outdoor Bed method Some varieties can be grown in non-sterile outdoor beds of fresh wood chips, sawdust, straw or other organic matter. Plant them under orchard trees or in your garden paths! Layer Sawdust Spawn with your growing medium, and keep beds watered. One 51/2lb bag of sawdust spawn will inoculate a 4x4' bed. Once established, a well-maintained bed can produce for many seasons



More Mushrooms - order online

Oyster Mushrooms *Pleurotus* spp. Oysters grow well on many different hardwood logs; soft hardwoods (poplar, aspen, cottonwood) are best. All three oyster species can also be grown in outdoor beds; they prefer straw to denser wood chips. *All three oyster types are available online as plugs, sawdust spawn or in kits.*

Blue Oyster *P. ostreatus*. Also called **Grey Oyster**. Very popular fleshy firm edible grey-white oyster-shaped caps often found growing on old dying maple trees (but don't inoculate dying trees, which will already be home to other fungi). Our most productive oyster strain. Reliable and cold tolerant, fruits prolifically in early spring or late fall.

Golden Oyster *P. citrinopileatus*. Tropical oyster strain that thrives in warm weather. Produces beautiful clusters with yellow caps that are a favorite at farmers markets.

Italian Oyster *P. pulmonarius*. Clusters of tender brown caps with thick white stems. Considered to be one of the finest culinary oysters. Cook any way you would for button mushrooms—great for sautéing.

Shiitake Lentinula edodes. Brown umbrella-shaped spongy caps, very nutritious and medicinal. Good for drying and reconstituting in winter soups. Meaty texture when cooked. Flourishes on oak and beech, but will also grow on hard maples. Fruits throughout the growing season and responds well to commercial forced-fruiting production methods. This is the Wide Range Shiitake strain. Available online as plugs, sawdust spawn and kits.

Wine Cap *Stropharia rugosoannulata*. Vigorous red-capped fruiting bodies for growing in outdoor beds. Prefers hardwood chips but will grow on a mix of soft and hard. Once established, they will produce for several years and can be easily transplanted to fresh woody debris. *Available as sawdust spawn only*.

MUSHROOM-GROWING TOOLS

For log inoculation, you'll need some tools. Here are a few essentials, available on our website:

Inoculation Tool for Sawdust Spawn A simple thumbpress hand tool for rapid inoculation of hardwood logs with sawdust spawn. (Not needed for plug spawn.) Drill holes with 12mm bit for best results.

Log Inoculation Drill Bits Specifically made for log inoculation, designed to clear the hole of sawdust as it drills to a set depth that matches plug length or sawdust dosage. For large projects, we recommend the

Angle Grinder Adapter with an 8.5mm bit for plug spawn, or a 12mm bit for sawdust.



Angle Grinder Adapter (for Log Drill Bits)

Used to attach a drill bit to an angle grinder to increase speed on large projects. Fits 5/8" spindle and takes both 12mm and 8.5mm drill bits.



Log Inoculation Sealing Wax A clear food-grade paraffin wax ideal for sealing holes in inoculated logs. One pound of wax is enough to seal about ten 4'-long logs. Sealing the holes is critical to success because it protects the spawn from drying out and from contamination by other fungal species. Wax is in granular form.

XL 0.5-Micron Filter Patch Mushroom Grow Bags

Chicken of the Woods and Hen of the Woods are prone to being out-competed by other fungi. This makes them unreliable producers. For these two varieties, we strongly recommend heat-treating and incubating your logs in filter-patch bags to provide a blank slate for your desired species. Each bag fits a 1'-long, 8"-diameter log segment. One bag of **Sawdust Spawn** will inoculate about 10 log segments—you'll need one bag per segment. The 0.5-micron filter allows for ample gas exchange. More detailed instructions for heat-treating logs will come with your order. Bag is 3mil thick polypropylene, 10x5x24". Pack of 10 bags.

HERBACEOUS PERENNIALS

USDA hardiness zone (chart on page 71) follows each description.
All our plants are nursery propagated. They are not dug from the wild!
All plant stock is bare root unless otherwise noted.

Organic after item name means the plants were grown at Ripley Farm, a MOFGA-certified organic nursery in Dover-Foxcroft, ME.

Achillea millefolium Yarrow Blooms June through September featuring 2–3" flat-topped flowerheads. Ferny green foliage is aromatic when crushed. Long-lasting cutflower, an excellent filler for fresh and dried arrangements. Prompt removal of faded flowerheads guarantees a long season of blooms. Colors can fade out in extreme humidity

but regular cutting will keep the blooms looking bright and fresh. It's a sweet and easy early morning task to walk the yarrow path and cut quick bouquets. Tolerant of dry soils and salt, excellent for coastal zones. Plant 12–24" apart in well-drained soil, full sun to part shade. (For white yarrow, see p. 63.) Z3.

A. m. 'New Vintage Violet' 24-28" tall. Charming bright magenta-violet flower clusters. Sturdy and upright, sports its vibrant color for a long bloom season, even in the heat. We're excited to find this new cultivar to diversify our yarrow collections! (2¹/₄" plug stock)

L7670 A: 3 for \$18.00 **B**: 6 for \$28.50

A. m. 'Oertel's Rose' 12-15" tall. Deep rose-pink flower clusters. One of the most well-behaved yarrows we've seen—not messy or floppy in windy weather like some of the taller varieties. (2¹/₄" plug stock)

L7671 A: 3 for \$16.25 **B**: 6 for \$26.75

A. m. 'Paprika' 18-36" tall. Handsome bright red flowerheads. Each tiny blossom within the cluster has a sunny yellow center. Draws a crowd when we have friends over for barbecue. (2¹/4" plug stock)

L7672 A: 3 for \$16.25 **B**: 6 for \$26.75

Aconitum napellus English Monkshood 36-40" tall. Also called Friar's Cap. Produces a mass of mid- to late-summer blooms with dense showy spikes of dark violet-blue hood-shaped flowers above elegant palmate foliage in late summer. Grand delphinium-style blooms rarely need staking. An excellent cutflower—cut when ½ to ½ the spike is in bloom. We love watching bumblebees disappear under the hood then clamber out covered in pollen. *Caution: the entire plant is poisonous*; wash your hands after handling or cutting. Prefers partial shade. Plant 15–20" apart in moist soil. Native to Europe. Z3.

L7673 A: 3 for \$16.00 **B**: 6 for \$28.00

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Allium 'Little Sapphire' Flowering Onion 12-15" tall. Round dense clusters of deep purple star-shaped flowers held above tidy upright clumps of strappy glossy greygreen foliage. Sweet-scented blooms make great cutflowers or dried winter arrangements whether you cut them before or after the green seed pods form. Attracts beneficial insects with its sweet nectar yet repels an array of undesirables - slithery, winged and legged pests alike-including deer. Only if crushed will the plants smell like an onion. Adds rugged charm and vertical structure to herb and rock gardens. Full to partial sun, soil adaptable, tolerates

clay. Blooms in mid to late summer. Z4. **L7674** A: 1 for \$8.50

B: 3 for \$22.50

C: 6 for \$39.75





Amsonia tabernaemontana var. salicifolia

Willow-leaf Bluestar - Organic 24-36" tall. Clusters of deep blue pointed flower buds form in early summer and open into powder-blue star-shaped florets held above deep green fine grassy willow-like foliage. Florets form a tight cluster as if the blossoms were held

by self-gravitation, giving it a fantastically unusual appearance that is more chaotic than tidy upon close examination. Beloved by native bees, hummingbirds, and many butterflies and moths. Gorgeous foliage turns gold in the fall. Best planted en masse. Forms a handsome vase shape at maturity. Looks fabulous with catmint and irises. Adaptable to most garden environments but performs best in full sun to part shade. Plant 12–18" apart in moist slightly acidic soil. Native Midwest

to mid-Atlantic. Z3. ME Grown. **L7675 A**: 1 for \$9.75 **B**: 3 for \$25.00

Aquilegia canadensis Wild Columbine - Organic 18-30" tall.

Delightful little stacks of roundlobed leaves emerge in early spring. Soon after, magical jewel-like nodding blossoms with red-spurred sepals and yellow petaled skirts dance above the foliage. The elegant slender spurs are filled with nectar irresistible to hummingbirds. We planted ours at the base of a granite boulder, right alongside some highbush blueberries. The columbines start flowering at the same time as the blueberry bushes, and the rock helps retain even moisture in the soil. Excellent under fruit trees. Columbines bloom from late May to early June with sparse blossoms persisting through July. Prefers light moist well-drained soil. Nice planted in clusters, 12–18" apart. Dappled shade guarantees the best color. Will self-sow—you can never have too many. Native to eastern North America. Z3. ME Grown L7677 **A**: 1 for \$9.00

Bare-root Perennial Planting Guide

To receive our guarantee (see page 2) for items on pages 55 to 65, you must have followed these instructions:

When you receive your order, open the bags and check the plant stock immediately. Roots and crowns should be firm and pliable, not soft

B: 3 for \$24.00

C: 6 for \$42.00

- After danger of freezing has passed:
 Dig a hole 2 or 3 times bigger than the plant stock.
 - Add a little compost if needed.
 - Fan or spread out the roots to encourage root development.
 - Fill hole with soil, pressing out air pockets as you go.
 - Keep the planting area free of weeds.
 - Mulch around the crown with straw or wood chips.
- Avoid applying mulch directly on top of crowns as they could rot.
 - · Mark the location with a plant label.
 - Check your plants daily in the first 2 weeks after planting!

If you cannot plant right away, you have two options: 1. Store bags of bare-root plants in a cool, dark (35–40°) place.

2. Pot up plants in well-drained slightly moist potting mix. Avoid coiling the roots in the bottom of undersized containers. Set pots in a protected spot in part-shade until you're ready to plant.

You must protect your herbaceous perennials from:

- Sun-shock in the first 2 weeks
- · Long periods of cold and wet conditions
- Too much or too little water
- · Competing plants
- Absentee gardening!

Arisaema triphyllum Jack-in-the-Pulpit

12-24" tall. In midspring, one or two compound leaves appear close to the ground, each with three leaflets framing an upright stem topped by a striped tannish-purple 3" long cuplike spathe (the pulpit) that contains and arches over the erect greenish-yellow spadix (Jack). It's always a delight to lift the flap and see Jack. This magical Northeastern native prefers the dappled shade and moist rich woodland soil of hardwood forests and grows well through leaf-litter mulch. Curiously, it consistently presents itself in damp areas that saw heavy tractor or excavator work the year before. Keep your eyes peeled! Plant 10–18" apart. Z3.

L7678 A: 3 for \$19.00

A: 3 for \$19.00 **B**: 6 for \$34.00 C: 12 for \$60.00

Asarum canadense Canadian Wild Ginger 6-12" tall. Heartshaped alluring rich green slightly fuzzy leaves up to 7" wide will spread into a beautiful groundcover. Aromatic roots used like other gingers for their warming qualities and for soothing indigestion, coughs, colds and motion sickness. The small reddish-brown urn-shaped flowers grow near the soil surface or in the surface leaf mold, pollinated by crawling insects. Flowers are fun to search for but won't decorate your landscape. Requires deep shade and moist rich woodland soil. Native to eastern

North America. Z3. (2¹/2" plugs in pots) **L7679 A**: 3 for \$30.00 **B**: 6 fo **B**: 6 for \$55.00 **C**: 12 for \$96.50

Asclepias incarnata Swamp Red Milkweed - Organic 3-5' tall. Forms unique fragrant flat-topped clusters of upturned rosy red flowers. Willow-like leaves are 4–5" long. Clump-forming;

great for naturalizing. Attracts bees, butterflies and hummingbirds. The monarch butterflies need all the help we can give them plant more milkweed! Grows naturally in floodplains and wet meadows but seems to do well in drier spaces. Self-sows, but doesn't take over like common milkweed. Plant 18-36' apart in moist soil. Native throughout North America. Z3. ME Grown.

L7680 A: 1 for \$11.00 **B**: 3 for \$30.00

A. tuberosa Butterfly Weed 18-30" tall. This brilliant summer wildflower features vivid tangerineorange clusters of flowers atop slender fuzzy stems, covered with green lance-shaped leaves. Spent flowerheads transform into prominent spindle-shaped seed pods that make a unique addition to mixed bouquets. The fleshy taproot will not tolerate clay or low ground. The very last to emerge in spring—be patient. Like others in the Asclepias

genus, this milkweed is a larval host plant to the monarch butterfly. Plant in full sun, 18–24" apart in well-drained fertile soil. Native to eastern and southern North America. Z4.

L7681 A: 1 for \$10.50 **B**: 3 for \$27.00

Astilbe Sometimes called False Spirea. Long-lasting plumes of flamboyant feathery flowers light up a shady perennial or woodland garden in midsummer. Sturdy stems; a nice cutflower, fresh or dried. legant glossy fern-like foliage forms an attractive clump that looks good all season. Prefers cool shady areas but is surprisingly tolerant of sun when planted in consistently moist well-drained soil. Mulch if necessary. Plant 18-24" apart. Divide clumps every few years.

> NEW! Astilbe 'Vision Inferno' 16-24" tall. Gorgeous gentle creamy pink-white dense blooms fade to green—not brown—to extend

this Astilbe's time to shine. Z3. **L7682** A: 1 for \$7.50 B: 3 for \$19.00

NEW! Astilbe 'Montgomery' 20-24" tall. Extravagant blazing red plumes burn bright before eventually fading to caramel brown, adding texture and interest into fall. Z3.

L7683 A: 1 for \$7.50 **B**: 3 for \$19.00



Astrantia major 'Burgundy Manor' Masterwort 24-28" tall. Compact umbels of burgundy flowers surrounded by rosettes of bracts appear on airy branched deep red stems held above deeply lobed green buttercup-like foliage. Clumpforming perennial makes an excellent groundcover when planted en masse. We've observed ours to be free of pests, even snails and slugs. Makes long-lasting cutflowers and is also a great container plant. Prefers morning sun and afternoon shade. Blooms June to August here in central Maine. Plant 12–18" apart in moist poorly drained soil. Species native to Europe and Asia. Z4.

L7684 A: 3 for \$28.00 **B**: 6 for \$47.00

Baptisia australis Blue False Indigo - Organic 3-4' x same. An early summer stand-out with vibrant blue lupine-like flowers. Native nitrogen-fixing legume is a larval host plant for many butterfly species. Has a bushy habit and short shrub-like vase structure once mature. Seed pods turn black in fall, adding interest to the autumn landscape and offering forage for granivore birds. Will develop an extensive root system, good for holding slopes to prevent erosion. Plant 3' apart in full sun and well-drained acid soil. Native to eastern and central North America. Z3. ME Grown.

L7685 A: 1 for \$9.50 **B**: 3 for \$26.00 **C**: 6 for \$48.00

NEW! Delphinium elatum 'Dasante Blue' Delphinium 28-32" tall. Brilliant blue blossoms are densely packed along terminal spikes above palmate glossy green foliage. Flowers have a hint of purple and white in the bees. There's a reason delphies never go out of style—the blooms seem to flicker with ultraviolet light if you stare at them in their early summer glory, yet for all their intensity, they lend an old-time elegance to the garden. Coming in under 3' tall, this shorter cultivar doesn't tend to need staking and makes a sturdy cutflower. To prevent disease avoid overhead watering. Plant in moist rich well-drained soil, and mulch roots to keep them moist and cool. Prefers full sun to light shade. Z3. (3" plug)

L7687 A: 3 for \$16.00

Dicentra Bleeding Heart Also called Lyre Flower, its genus has been updated to Lamprocapnos.

Graceful racemes arch over clumps of attractive cut foliage. Distinctive heart-shaped flowers dangle in a row on each raceme like charms on a bracelet. Z3.

D. formosa 'Bacchanal' 14-20" tall. Burgundyred elongated heart-shaped blossoms dangle from long leafless stems. Flowers are a little less tidy than the respectable *D. spectabilis*. With consistent moisture, the lacy blue-green foliage of this Dicentra stays awake and looking good for much of the season. Plant 12" apart in full to dappled shade in evenly moist well-drained fertile soil. Will not tolerate wet winter soils. Blooms in late spring. Species native to western U.S.

L7689 A: 1 for \$8.00 **B**: 3 for \$21.00 **C**: 6 for \$36.00 **D**. **spectabilis Old-Fashioned Bleeding Heart** 30-36" tall. Perfectly formed pink heart-shaped flowers with delicate white inner petals define this classic hardy long-lived perennial. Plant 2–4" deep, 24" apart in rich moist soil and partial shade. Blooms in early to mid spring; goes dormant in summer. Native to eastern Asia.

L7690 A: 1 for \$9.00 **B**: 3 for \$24.00 **C**: 6 for \$39.00

Jumping Worm Prevention

The invasive and destructive Amynthas worm (known as Asian Jumping Worm) has arrived in the Northeast, and at Fedco we're doing everything we can to halt the spread. The Maine Department of Agriculture, Conservation & Forestry states: "Amynthas worms change the soil by accelerating the decomposition of leaf litter on the forest floor. They turn good soil into grainy, dry worm castings (aka poop) that cannot support the native understory plants of our forests. Other native plants, fungi, invertebrates, and vertebrates may decline because the forest and its soils can no longer support them."

While we can mitigate the effect of these worms in our gardens, our utmost goal is to keep them from spreading into forests. We've confirmed with our growers and vendors that they're taking all precautions against jumping worms, including meticulous cleaning, sanitizing, and inspection of all bare-root plants, as well as using growing media (for plug stock) that's free of field soil, produced in clean environments, and sterilized.

To learn more about identifying and preventing the spread of jumping worms, go to maine.gov/dacf/php/horticulture/jumpingworms.shtml

Dryopteris marginalis Leatherwood Fern 20-30" tall. Also known as Evergreen Wood Ferr Strong sturdy stems and slightly glossy leathery grey-green fronds make this one of the best ferns for floral arrangements. In late spring it's great fun to look for immature sori (spore cases) on the underside of the frond. Hunt for small green bumps along the margins of the subleaflets. Later in the year, the sori change color to rusty-brown. Evergreen leaves flourish through the winter and can be found in rocky wooded slopes in Canada, onwards south to Alabama and farther west to the Rocky Mountains. Performs best in less than 3 hours of sunlight per day but will tolerate more if you ask nicely. Plant 12" apart in moist well-drained woodland soil and mulch with leaves to keep crowns from drying out. Z3. (4" plugs)

L7691 A: 3 for \$27.00

Echinops ritro Blue Globe Thistle - Organic 3–4' tall. Sometimes called Small Globe Thistle or Southern Globe Thistle. Luminous 1¹/2" steel-blue spiky spheres balance atop stiff stems with deeply divided silvery green leaves. Echinops comes from the Greek word for 'hedgehog.' Excellent addition to wreaths and fresh or dried arrangements. Blooms mid to late summer. Beloved by bees and butterflies—leave the seedheads standing in fall to feed birds. Tolerates shallow rocky ground and dry sites. Plant 1–2' apart in full sun and well-drained soil. Z3. ME Grown.

L7692 A: 1 for \$9.00 **B**: 3 for \$24.00

Eutrochium Joe Pye Weed Also called Queen of the Meadow, and formerly Eupatorium. Tall architectural clump-forming North American native wildflowers feature big soft terminal clusters of mini pink florets on strong stems from midsummer to early fall. Whorls of lance-shaped serrated leaves look good all summer. All species are enormously beneficial to pollinators like butterflies, bumblebees and solitary bees; also a larval host plant for many kinds of moths. Chickadees like to pick at the tawny dried seedheads in winter. Flowers can be used for dyeing.

Found along the edges of moving water, in damp meadows, and in moist roadside ditches. Choose a planting site where Eutrochium can naturalize at the back of a border, or along the edge of a wood. We've let ours spread into a tall perennial hedge right along the front of the house where it mingles in full sun with globe thistle and goldenrod. The deer don't seem overly interested. Readily spreads from seed and underground rhizomes, so plant thoughtfully if you are working in a small space. All three species we're offering do well in moist soil and full sun. If grown in shade, they might need support.

E. fistulosum Hollow Stem Joe Pye Weed - Organic 6' tall. Dusky-rose flowers are held on beautiful wine-red stems that are dusted with a light purplish bloom. Leaves whorl in sets of 4 to 7, with slightly more rounded teeth than other Joe Pyes. More adaptable to wet soil than other species, even by Joe Pye standards. Z4. ME Grown.

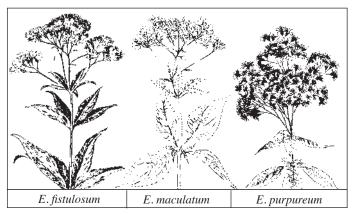
L7694 A: 1 for \$9.00 **B**: 3 for \$24.00

E. maculatum Spotted Joe Pye Weed - Organic 4-7' tall. Large lavender-rose flower clusters attract a plethora of pollinators. Leaves whorl in sets of 5 around sturdy unbranched bewhiskered purple-spotted stems. Among the Joe Pyes, this one takes the cake for character. Z4. ME Grown.

L7695 A: 1 for \$9.00 **B**: 3 for \$24.00

E. purpureum Sweet Joe Pye Weed - Organic 4-6' tall. Massive vanilla-scented pinkish-purple domed flowers are held atop sturdy green stems with whorls of 4 to 5 sharply serrated leaves. Often found in average to dry woodland edges. More adaptable to heat, drought and shade than the other species we're offering. Z3. ME Grown.

L7696 A: 1 for \$9.00 **B**: 3 for \$24.00



Geranium Cranesbill Vigor, longevity, hardiness, lo-o-ong flowering period and lush attractive deeply cut leaves make this hardy perennial useful for borders, edging, rock gardens or as an orchard companion. After bloom, distinctive long narrow "cranesbill" seed pods flutter jauntily above the spreading foliage, which quickly forms dense clumps and turns a rich red in fall. Name confusion may be a big reason why this attractive easy-to-grow genus is not more well known: the popular bedding and indoor plant with big red flowers widely called geranium is actually *Pelargonium*. For best results plant in the lightly shaded areas of wild open woodland gardens or in the orchard underneath your ancient apple trees. Plant 12-18" apart in average garden soil.

G. maculatum Spotted Cranesbill 12-24" tall. Clusters of single 11/4" pinkish-lilac saucer-shaped flowers beckon the native pollinators. Also known as Wild Geranium, this is the true geranium, native to eastern North America. Low-growing spreading groundcover and the best choice for planting in the orchard. Z4. (4" plug)

L7697 A: 1 for \$10.00 B: 3 for \$28.00 C: 6 for \$52.00

G. pratense 'Orion' Meadow Cranesbill 20-24" tall. Clusters of single 1" violet-blue flowers with violet veins. Blooms continuously from late spring through fall, the first big flush of flowers arrives in late May, with a lighter repeat bloom cycle continuing well into autumn. The best of the blues! Z4.

L7698 A: 1 for \$6.50 **B**: 3 for \$17.50 **C**: 6 for \$31.50

G. sanguinium 'Max Frei' Bloody Cranesbill 4-9" tall. Cunning bright magenta cups with purple-blue anthers cover tidy deep green lacy foliage. Its compact form works well in containers, too. This one is native to Europe and Asia but naturalized in the Northeast. Species considered more drought tolerant than others in the genus. Max Frei is the pen name of Ukrainian magic realist writer Svetlana Martynchik. Z3

L7699 A: 1 for \$7.50 **B**: 3 for \$19.00 C: 6 for \$34.00

Helenium autumnale Gold Sneezeweed - Organic 4-5' tall.

Single golden flowers resemble coreopsis in shape but have large center buttons much like coneflower. At its prime when most perennials are done blooming. Combine with asters and phlox for great late-season color and a treat for the pollinators. Not fussy, easy to grow, excellent cutflower. Supposedly used for snuff at one time, hence the common name. Plant 18" apart in moist soil and full sun. Native throughout much

of North America. Z3. ME Grown. **L7700 A**: 1 for \$9.00 B: 3 for \$24.00

Leave the Seeds!

While we marvel at the abundance of songbirds in spring and summer, sometimes we feel as though they flutter away just when need them most—when the days shorten and the world turns brown and dreary. Many of us put out feeders for those that stick around or arrive in winter. We should also consider leaving our perennials standing in fall as a source of seed for the birds. Seedheads also add texture to the stark winter garden.

Chickadees, titmice, nuthatches, jays, cardinals, grosbeaks, finches, redpolls and juncos are just some of the birds that may be looking for seeds in winter. Consider planting these native perennials and leaving the seedheads standing:

Achillea millefolium Yarrow Asclepias spp. Milkweeds Baptisia australis Blue False Indigo Echinacea spp. Coneflowers Echinops ritro Blue Globe Thistle Eupatorium perfoliatum Boneset Eutrochium spp. Joe Pye Weeds Heliopsis helianthoides Early Sunflower (on our website) Liatris spp. Blazing Star Monarda spp. Bee Balm and Wild Bergamot Oligoneuron rigidum Stiff Goldenrod Symphyotrichum spp. Asters

Hemerocallis Daylily Champion lowmaintenance perennial produces a bush of narrow arched leaves topped with lilyshaped flowers from July to September Hemerocallis means 'beautiful day,' referring to the fact that each flower lasts only a day, but since each scape (or stem) is covered with buds, bloom periods can be extensive and the long stems work well in bouquets. Troublefree, chokes out weeds. Flourishes under a wide range of conditions, from full sun to shade, wet to dry. Plant 12-18" apart in average soil; benefits from an annual shovelful or two of compost. Ditch the ditch lilies and

check out these stunning cultivars! Native to eastern Asia. This year's stock is one-year-old field-grown rootstock with two fans.

NEW! H. 'Blackthorne' 24-30" tall. This flamboyant swashbuckler features 41/2-5" blooms with light yellow to buttercream recurved petals and a deep Malbec-purple, nearly black, eye. The chartreuse throat and yellow stamens flash like buried treasure. This tetraploid is not officially classified as a rebloomer, but has been observed to do so prolifically. Z2

A: 1 for \$11.00 **B**: 3 for \$31.00 **C**: 6 for \$60.00

H. 'Hyperion' 30-40" tall. Spider form. On dense foggy mornings, bright clear Hyperion peers through the gloom with intensely fragrant 5" trumpet-shaped lemon-yellow flowers. Widely planted on old farmsteads in Maine, where it became popular in the 1920s. Famous for its heavenly scent, extended blooms—flowers stay open for nearly 16 hours—and ability to rebloom later in the season. Hyperion remains a favorite and is a must-have in the naturalized perennial border. Z2 **L7703** A: 1 for \$12.50 B: 3 for \$36.00

NEW! H. 'Moses' Fire' 18-28" tall. Holy Moses! 6" double blooms in saturated coral-red! There aren't a ton of double daylilies in the market, and even fewer red doubles. Although listed as a dormant variety, it's known to fare well all the way into Zone 10. Z3

L7704 A: 1 for \$9.00 **B**: 3 for \$25.00 **C**: 6 for \$48.00

H. 'Rocket City' 30-36" tall. Fragrant 6" bright glowing orange blossoms with bittersweet copper eye zones and a mango-orange midrib and throat. Excellent landscape variety. Extended bloom, flowers remain open for at least 16 hours. Z2.

L7705 A: 1 for \$9.00 **B**: 3 for \$25.00 **C**: 6 for \$44.00

H. 'Ruby Stella' 18-22" tall. Dark ruby flowers with deep wine-red markings, a striking yellow-bordered greenish throat, and red anthers for highlights. Prolific 3" blooms from early summer until first frost. Performs best in full sun and does not require deadheading, pruning or pinching. Z2

L7706 A: 1 for \$8.00 **B**: 3 for \$22.00 **C**: 6 for \$36.00

> **Native Plants &** The Wild Seed Project

The Maine-based non-profit Wild Seed **Project** is a great place to learn about growing native plants from seed and incorporating them into the landscape. Wild Seed Project works to increase the use of native plants in

all settings in order to conserve biodiversity, encourage plant adaptation in the face of climate change, safeguard wildlife habitat and create pollination and

migration corridors for insects and birds. As we at Fedco seek to provide ethically sourced plants to our customers, we've been deeply appreciative of guidance from Wild Seed in helping us determine which plants are at-risk of being pillaged in the wild.

If you want to support this important work, become a Wild Seed Project member. Go to: wildseedproject.net



Hosta Bold foliage forms orderly mounds with dependable sprays of fragrant bell-shaped flowers on tall stalks Valuable and cherished low-maintenance border plant provides shade-loving groundcover from spring to frost. With their varying colors, textures and clump sizes, hostas alone under trees can make a woodland garden. Deep shade gives fewer flowers but better leaf colors, especially for those with blue and variegated leaves. Bumblebees and hummingbirds sip on the mid-late summer blossoms Hostas tolerate a wide range of soil conditions but prefer rich moist humusy soil. Plant 2-4' apart. Divide every 4–5 years, or leave them alone; they will improve with age as they spread and establish. Even with no maintenance they'll likely outlive us all. Native to eastern Asia H. 'Blue Angel' Very large oval

H. 'Blue Angel' Very large oval blue-green leaves, up to 16" long and 12" wide! Pale lavender to white flowers on scapes to 48" bloom midsummer. Foliage will develop best blue color in light shade. Plants mature to about 34" tall and 46" wide.

L7708 A: 3 for \$18.00

H. 'Brother Stefan' 25" tall and 30" wide. Hosta enthusiasts crave this cultivar for its unusual

color variation and sturdy clumps of thick heavily corrugated leaves. Lime green to gold centers are toothed, bordered by irregular deep green, almost blue, margins. White flowers. Slow to mature, so put on

green, almost blue, margins. White flowers. Slow to mature, so put on your patience pants and plant this brother where he can strut his stuff. 2017 Hosta of the Year.

L7709 A: 3 for \$25.00

H. 'Tootie Mae' 18" tall and 36" wide. Rounded heavily corrugated blue leaves with wide chartreuse margins. White flowers smoked with lavender. Released in 2006, it's a sport of Tokudama Flavocircinalis with the improved attribute of holding its margin color well through the season.

L7710 A: 3 for \$20.00

Everyone Needs Shady Friends

Many of the best-selling perennials that steal hearts all season make their home in the sunshine, but some of our favorites take it easy in the shade. They may be a little more reserved, a bit demure, but you won't regret getting to know these shady friends.

We recommend the following plants to bring the party to a shadowy corner of the garden, under the trees, and at the woods' edges. They vary in their preferences from dense shade to dappled light, so read the individual plant descriptions before you plant.

Aquilegia canadensis Wild Columbine
Arisaema triphyllum Jack-in-the-Pulpit
Asarum canadense Canadian Wild Ginger
Astilbe (all cultivars)
Chelone glabra White Turtlehead (on our website)
Dicentra 'Bacchanal' Bleeding Heart
Dicentra Old Fashioned Bleeding Heart
Dryopteris marginalis Leatherwood Fern
Hosta (all cultivars)
Geranium (all cultivars)
Ligularia dentata Leopard Plant (on our website)
Phlox divaritica Woodland Phlox
Polygonatum Variegated Solomon's Seal



Iris sibirica Siberian Iris In late June, delicate flowers dance above tall slender slate-green foliage that looks beautiful all summer. Irises make wonderful cutflowers if harvested when blooms are just beginning to open and show color. Tolerates most conditions, but performs best in rich moist acid soil. Plant 18" apart in full sun or partial shade. Give them room to spread, and divide clumps every few years to share with friends. All of this year's selections year hail from Maine hybridizers and were propagated in Maine! All are also tetraploids, which means they have the chromosomes of four parents; bred for size, color intensity and sturdy stalks. Z3. I. s. 'Crimson Fireworks' 34" tall. Okav folks, truth be told, the standards and falls are not really crimson. They are more of a deep magenta-purple with prominent white signals and dramatic blue vein flashes just outside the signal, outlined by a fine white rim. This ruffled variety knocked our socks off with its surprising saturated color. Mid to late season blooms. ME Grown. L7711 A: 1 for \$13.50 B: 3 for \$37.50 I. s. 'Great Falls Love' 32" tall. Resembles a refined version of a German bearded iris with eye-catching 51/2" vibrant violet blossoms, heavily ruffled upright standards and wide-spreading ruffled falls with an icy-lemon blaze. Long bloom time, extended vase life, unusual ruffled form and strong saturated color set this Siberian beauty apart from all

I. s. 'Harpswell Happiness' 32" tall. Bred by Currier McEwen, legendary Maine hybridizer, 1983. Early midseason to late. Ruffled creamy white standards are yellow-green at the base. Falls creamy white with buttery yellow signals and yellow-green veining. Won the Royal Horticultural Society's Award of Garden Merit, 1996. ME Grown.

L7713 A: 1 for \$13.50 **B**: 3 for \$37.50

the rest. Mid to late season blooms.

ME Grown. BACK after a long absence!

A: 1 for \$13.50 **B**: 3 for \$37.50

L7712

Iris versicolor Northern Blue Flag - Organic 30-36" tall. Northeastern native species carries gorgeous blue-violet flowers with bold purple veining and a white and lemon-yellow blaze. Tall slender blue-green arching lance-shaped leaves offer a strong vertical feature to the landscape. Requires consistently moisture or even a few inches of standing water—ours performs well in moist garden soil. Plant 12–24" apart in full sun to part shade. Early bloom time. Z2. ME Grown.

L7714 A: 3 for \$24.00 Kniphofia uvaria 'High Roller' Red Hot Poke 36-48" tall. As the climate continues to warm, northern gardeners are making the best of it and daring to dream of fields of red hot poker in their own backyards. A bicolor tropical-looking riot of fiery red-orange fading to coral and soft white tubular inflorescences, from top to bottom, along the spectacular 8" spikes. Breathtaking and playful. Blooms July to September and makes an unusual accent in cutflower arrangements. Clump-forming narrow-bladed foliage. Plant 18-24" apart in full sun in warm well-drained soil. For overwintering, mulch to protect the crowns from moisture and heaving. Native to South Africa. Z5/6. **A**: 1 for \$13.50 **B**: 3 for \$36.00 L7715

fedcoseeds.com

Liatris Blazing Star Also called Gayfeather. Stiff dense "bottlebrush" flower spikes bloom from top to bottom and tower above fine grass-like foliage. Beloved by pollinators of all sorts, including hummingbirds; leave seedheads standing for the birds in fall. Adds elegant structure to the perennial border and mixed bouquets. For cutflowers be sure to leave at least 1/3 of the stem on each plant for best results. Blooms from July to September. Tolerates a broad range of growing conditions, but not drought. Plant in full sun, 3" deep, 8–12" apart, in well-drained fertile soil. Both species native to eastern North America. Z3. $(1^{1/4}-1^{1/2}"+ corms)$

L. pycnostachya Prairie Blazing Star - Organic 40-48" tall. North American native with tall brilliant purple wands loved by butterflies. Mainers: If you find yourself on Koute 3 heading west toward Augusta, keep your eyes peeled for a massive field of this flower in midsummer! Z3. ME Grown.

L7716 A: 3 for \$25.00

L. spicata Floristan White Dreamy white

C: 50 for \$24.25

flower wands grow 30-36" tall. L7717 A: 10 for \$7.75 B: 20 for \$12.75

C: 50 for \$26.75 L. s. Purple Blazing Star Magical magenta-purple flower

wands grow 20-30" tall. L7718 A: 10 for \$7.00 B: 20 for \$11.50

Lilium Asiatic and Oriental Lilies Queens of the perennial border, fabulously showy and surprisingly easy to grow. Good as single specimens or in masses. Great cutflowers, with 3–5 flowers per stem.

Our lily mixes contain 5 varieties. If a variety we list in the description becomes unavailable, we'll substitute a similarly wonderful variety.

Asiatic lilies tend to be slightly shorter than Oriental lilies 24-36" tall on average. Flowers face upward and bloom mid-June to July. Not much fragrance.

Oriental lilies easily grow 30–48" tall by their

second season. Blooms tend to face outward or slightly down and bloom in August. Very fragrant!

Light shade prolongs summer blooms and keeps the bulbs cool. Plant bulbs 6-8" deep, 6" apart, in rich, slightly acid, well-drained soil. Z3.

Can't Gild This - Asiatic Lily Mix Fedco exclusive! 24-36" with a few up to 48" tall. Tropical, hot and spicy collection of corals, yellows, fiery red-to-orange, and deep plum-purple for bold contrast Bicolors, tricolors and freckled colorblends abound. Jaw-dropping beauty with dramatic outlines and edging that add flare and fiesta to your garden. Blooms mid-June through July. Mix contains 5 varieties: Caddy, Beverly Gold, Royal Sunset, Forever Susan and Viva la Vida.

NEW mix components! L7720 A: 5 for \$20.00 B: 10 for \$30.00

Here's Looking at You Kid - Oriental Lily Mix Fedco exclusive! 30-48" tall. While we disagree that classic film is improved by colorization, this flower collection jumps off the silver screen into technicolor with style! Enduringly beautiful with soft brushstrokes that span the classic palette of solid pinks, solid whites, stunning bicolors, sophisticated tricolors—some with spots, stripes, highlights, shadowy beauty and a hint of gold. A lovely set that could melt even the most cynical, seemingly lost protagonists who could turn from heartless profiteering to assisting the Resistance. Blooms in August. Each fragrant mix contains 5 varieties: the wellknown varieties Casa Blanca and Stargazer, plus lesser-known Tarrango, The Edge and

Tricolor. L7721 A: 5 for \$22.00 **B**: 10 for \$35.00

Nepeta faassenii 'Walker's Low' Catmint 24-36" tall. Aromatic grey-green foliage with long arching stems topped by lavender-blue flowers provides an eye-catching show of color nearly all summer. Creates a strong dependable low-growing hedge along any garden path. Flowers attract bees, butterflies, hummingbirds and human admiration, and the occasional feline interloper. Cut back in midsummer to encourage steady blooms. Likes hot and dry, but will grow in any well-drained soil. Plant 18–24" apart in full sun to part shade. Z3.

A: 1 for \$10.50 L7723 B: 3 for \$25.00

Oligoneuron rigidum Stiff Goldenrod - Organic 2-5' tall. Also called Rigida. Formerly classified as a member of the Solidago genus and recently reclassified as an Oligoneuron. Grower Gene Ripley said it best: "Rigida displays the gorgeous yellow-gold vibrancy of goldenrod, but packed into a dense, showy, flat-topped cluster, with attractive lush slate-green foliage that you'd never recognize as a goldenrod. The pollinators absolutely love it, like all goldenrods, but Rigida draws them in without looking weedy or common." Excellent cutflower. Plant in full sun to part shade in rich well-drained soil. Native to eastern North America. Z3. ME Grown.

L7724 A: 1 for \$8.00 B: 3 for \$22.00

Paeonia (Itoh) Peony 30-36" tall. Undeniably lavish in bloom, Itohs (and those classified as **Intersectionals**) surprise some gardeners for being just as hardy and easy to grow as our

more familiar garden peonies. These wonders are a cross between herbaceous garden peonies and tree peonies and feature the best of both. Giant 6-9' blossoms (like the ones on tree peonies) open in early summer as many of the garden peonies are fading. The growth habit is similar to garden peonies with attractive mounded foliage that dies back in the winter. Strong stems rarely need staking. Side buds bloom late into the season.

To help you succeed with these pricier bare-root peonies, we'll include planting and pruning instructions with your order. Z3. (Stock has 3–5 eyes.)

NEW! P. (Itoh) x 'First Arrival' 28-30" tall. While Itohs are often flashy and bold, First Arrival is special for its delicate hues. Semidouble 7" blooms open rose-to-lavender pink with cherry-red interior flares, then fade to soft pink. Small center cluster of yellow stamens. An abundant and early bloomer in classic Itoh form with plentiful petals. Early to midseason blooms. (3-5 eyes) Supply limited—order early to avoid disappointment! **L7734** A: 1 for \$46.00

NEW! P. (Itoh) x 'Sonoma Yedo' 28-30" tall. Highly doubled lemonyellow blossoms with interior pink splashes are 6" or bigger, with possibly the highest petal count of all Itohs. Long blooming and long lasting—blossoms fade toward ivory as they age. Sturdy stems require little or no support. Very special and rare in the trade. Early to midseason blooms. (2-3 eyes) Supply limited—order early to avoid disappointment!

L7735 A: 1 for \$48.00



'Itoh' refers to the Japanese hybridizer Dr. Toichi Itoh, who during and after World War II made thousands of attempts to cross garden and tree peonies. His goal was to breed the perfect yellow peony. He finally succeeded in 1948 but did not live to see his seedlings bloom. In 1968 his widow gave an American breeder permission to introduce Itoh peonies to the West, where hybridizers took up the torch.

Some purists refer only to Dr. Itoh's four original yellow peonies as Itohs and subsequent hybrids (many in other wonderful colors) as Intersectionals. We tend to call them all Itohs to honor the man who endured war while dreaming of flowers.



Paeonia lactiflora Garden Peony Also called Chinese Peony. Reliable, long-lived hardy herbaceous perennial native from Tibet to Siberia. The red to forest-green shoots appear in midspring and form a bushy clump of lustrous dark green deeply lobed foliage that makes a lovely hedge or backdrop to the flower garden.

Big spherical buds on sturdy stems gradually open from late spring to early summer, transforming into huge stunning blooms. Ants may help the buds open so don't discourage their presence. Most garden peonies require support to keep the heavy blossoms from flopping. For long-lasting cutflowers, harvest when buds are soft like marshmallows but not quite open.

Plants may take 3-5 years to establish before blooming and are sensitive to disturbance during that time. Z3. (Stock has 3-5 eyes.)

P. I. 'Command Performance' Midseason. 30-34" tall. Fully double type. Very fragrant cardinal-red bomb-type blossoms can measure up to 9" across! The massive flowers start out red, change color after a few days to deep orangey-red, with more color variations as the season goes on, hence this beasty beauty's nickname Gobstopper (à la Charlie and the Chocolate Factory). Strong stems require little support in the garden or vase.

L7725 A: 1 for \$18.00 B: 3 for \$48.00

NEW! P. I. 'Do Tell' Midseason. 32-36" tall. Japanese type. Introduced in 1946. Anemone-style creamy pink guard petals serve up a frilly center of white and dark pink petaloid segments. As scrumptious as strawberry shortcake. Yellow stamens. Lightly scented. Withstands heat a bit better than other varieties. American Peony Society Gold Medal winner.

A: 1 for \$23.00 **B**: 3 for \$60.00

P. I. 'Festiva Maxima' Early. 32-36" tall. Double type. Introduced in 1851. Heavenly scented large white flowers with a light crimson drizzle upon the central petals. Elegant as all get out; a classic to adorn the garden. Stems of moderate strength need staking and clever placement in bouquets.

L7728 A: 1 for \$17.00 **B**: 3 for \$44.00

Papaver orientale Oriental Poppy Breathtaking clump-forming perennial features finely cut bristly frosty-green leaves and shimmering crepe-paper blossoms that give way to signature seedpods, essential components of late-season bouquets and dried arrangements. The entire plant goes summer-dormant-don't be alarmed when the leaves turn brown in early summer and disappear almost

entirely by August. Basal mats of new leaves will appear in fall. We've caught painted turtles chowing down the foliage; try to lure them away with a nice salad.

Oriental poppies form taproots—loosen soil deeply before planting so roots can reach the cool soil with ease. Full to part sun. Requires well-drained soil; overwatering or wet soil, particularly during dormancy, is the most common cause of failure. Mulch before winter to prevent heaving. Z3

P. o. 'Aglaya' 20-30" tall. Ethereal light coral or salmon-pink frilled semi-double petals with dark centers. Royal Horticultural Society's Award of Garden Merit. Surely named after one of the three Greek Graces, Aglaea, whose name means something like 'festive radiance.'

A: 3 for \$24.00 **B**: 6 for \$39.50 L7736

P. o. 'Little Patty's Plum' 10-15" tall. Dusky damson-plum-colored blossoms. A short version of the original Patty's Plum poppy, a compost-pile surprise discovered in the 1990s by gardener Sandra Pope. Named for plantswoman Patricia Marrow, owner of the famous Kingsdon Nursery in Somerset, England.

L7737 A: 3 for \$24.00 B: 6 for \$39.50 **P. I. 'Highlight'** Late midseason. 34-36" tall. Fully double type. Auten/ ild & Son, 1952. Dark sensational burgundy red is a highlight in the garden. Unusual and arresting. Pairs well with any color. Sturdy stems make a great cutflower.

L7729 A: 1 for \$21.50

B: 3 for \$54.00

P. I. 'Nippon Beauty' Late. 30-34" tall. Japanese type. Auten, 1927. Scarlet-red guard petals surround fringed red and gold petaloid centers. It's a stunner. Similar to anemone types but different in that in the place of anthers we see frilly overlapping (imbricated) petal-like filaments. Rare in the trade

L7731 A: 1 for \$18.00 **B**: 3 for \$48.00

'Pink Hawaiian Coral' Early. 24–36" tall. Semi-double to double. A symphony of coral, peach, melon and pink shades in semi-double form. Elegant 5-6" flowers change color as they age, and golden stamens appear as petals unfold. Very fragrant and packed with petals. Won the American Peony Society's Gold Medal in 2000.

L7732 A: 1 for \$17.75 B: 3 for \$47.00

P. I. 'Sarah Bernhardt' Late. 32-36" tall. Fully double type. Introduced in 1906. Fragrant flowers open with narrow red lines shot onto light rose-pink. Matures to delicate pink with a slight creamy-silvery edge. Can a pink be both warm and silvery? This one is. One of our favorites with exactly the right amount of doubling-richly full but not crammed.

L7733 A: 1 for \$14.50

B: 3 for \$38.00

Growing Garden Peonies

Soil: Prefers rich fertile well-drained soil.

Sun: Full sun to part shade.

Spacing: 2-3' apart.

Planting: Prepare planting hole with compost. If you have it, sprinkle in bone meal and/or Azomite. Transplant with the eyes no more than $1^{1/2}$ " below the soil.

Plant care: Most peonies require support to prevent the heavy flowers from flopping. In autumn after frost, cut back to just above ground level. Spread mulch over the area to protect the roots from frost heaves. In spring, amend soil with compost around the base of the plant.

Penstemon Beardtongue North American native wildflowers with spires of tubular bell-shaped flowers will beckon the pollinators to your garden. In the North, Penstemon blooms

in that sweet spot between spring and summer and is hugely important for bees, butterflies, hummingbirds and sphinx moths, among others. Plant 8-14" apart in full sun to part shade in fertile medium-dry well-drained soil. Will self sow and develop a nice stand over time. Deer resistant. Z3

P. digitalis Foxglove Beardtongue - Organic 30-42" tall. Airy clusters of white to light pink 1" bellshaped flowers top rigid stems in early summer. ME Grown.

A: 1 for \$9.00 L7738 B: 3 for \$24.00

P. hirsutus Hairy Beardtongue - Organic 16-30" tall. Shorter than

P. digitalis, with fuzzy stems topped by clusters of slender tubular nodding 1" lavender flowers with arching white lips. ME Grown.

L7739 A: 1 for \$9.00 B: 3 for \$24.00



Phlox divaritica Woodland Phlox Compact selections of our native woodland phlox featuring fragrant 5-petaled flowers held above semievergreen lance-shaped foliage. Blooms in April and May and spreads by shallow underground rhizomes and layered shoots to create a light ambling groundcover, politely popping up in small colorful patches. Thrives near stream banks and moist woodland meadows but will tolerate drier soils. Plant with Jack-in-the-Pulpit, lungwort and wild

columbine for a spring show. Attracts long-tongued pollinators like bumblebees, swallowtails and sphinx moths. Not to be confused with the low-growing moss phlox, P. subulata, that creeps around old New England cemeteries. Plant 12" apart in moist rich woodland soil with good airflow. Full shade to part sun. Z3. (2¹/₂" plug stock)

P. d. 'Blue Moon' 12-18" tall. Sweet lavenderblue florets that will make you wonder where they've been all your life. Selected by Bill Cullina when he worked at the New England Wildflower Society's Garden in the Woods, Bill put the Coastal Maine Botanical Gardens on the map and set a trend for organic gardening in public spaces

L7740 A: 1 for \$7.00 **B**: 3 for \$17.50 P. d. 'May Breeze' 12-15" tall. Loose clusters of cool pale bluish-white or white washed with blue florets. Selected for its compactness, fragrance and refreshing color by Piet Oudolf, a garden designer famous for breaking from European gardening traditions and embracing holistic approaches.

B: 3 for \$13.50

Polygonatum odoratum var. pluriflorum Variegated Solomon's Seal 24-36" tall. Brings an immediate woodland feel to the shade garden or border. Soft green ovate-oblong leaves edged in white gracefully line arching unbranched stems. Small white bell-shaped blossoms dangle from the leaf axils in late spring and develop into (inedible) black berries. Not a common cutflower, but we like it in arrangements, where it can hold up for two weeks. Foliage stays nice all season in cool moist soil. Will slowly spread by rhizomes into a lovely stand over time. Thrives in moist soil and dappled shade. Species native to

A: 1 for \$5.50

Europe and Asia. Z3. BACK after a long absence! **L7743 A**: 1 for \$7.00 **B**: 3 for \$18.00

Pulmonaria 'Mrs. Moon' Lungwort 9-12" tall and eventually up to 2' wide. Brighten up your shade garden with boldly textured periwinkleblue buds that open to charming long-lasting pink flowers—a striking effect when both colors appear at once. Large ovate slate-green leaves are dressed in vivid silver-white splotches Foliage will look good all summer if plants don't dry out. A brilliant early season contrast to blooming daffodils and emerging hostas and ferns. Not generally considered a hummingbird plant, but Deb Soule of Avena Botanicals recommends it for our wee feathered friends, as do we. Plant 1-2' apart in moist soil and full to partial shade. Won't thrive

in the deepest shade. Z3. **L7744** A: 1 for \$7.00 **B**: 3 for \$16.50

Salvia azurea Blue Sage - Organic 3-5' tall. North American native displays delicate spires of sky-blue tubular double-lipped flowers in whorls on long square stems. Incredible in mixed bouquets. Humans generally love the sweetly scented foliage, while deer tend to avoid it. Blooms from August to October. Pollinators love this plant. Prefers poor soil. If the site you choose is too rich, plants may lodge without support. In full sun and well-drained sandy or light gravelly soil, they're likely to stand strong. Z4. ME Grown.

A: 1 for \$9.00 B: 3 for \$24.00

yangii Russian Sage 36-48" tall. Formerly Perovskia atriplicifolia. Elegant slender spires of small lavender-blue tubular flowers in midsummer have a misty appearance from a distance. Finely divided grey-green leaves are aromatic when crushed. Among the longest blooming of any blue-flowered plant. Semi-woody shrub emerges slowly in spring; cut back after frost. Tolerates drought, loves heat and full sun, can't bear standing water. Likes to spread out once it gets establishedwe think it deserves every foot of space it can get! Plant 24-36" apart. Native to central Asia. We suspect Zone 4 reports of winterkill are from poor drainage rather than cold, so a cautious Z4.

L7746 A: 1 for \$11.00 **B**: 3 for \$28.00

Sempervivum Hens and Chicks Mix If you've got boulders in the back forty or a rocky sandy sun-drenched spot in the dooryard, you have the makings for an amazing cascading Sempervivum display. Sempervivum means 'always alive.' Low-growing

rosette-forming succulents produce runners and babies by the boatload. Drought and heat tolerant, and cold hardy, too! They offer a fun way to learn about fractals -plant them in a strawberry pot with the kids for an easy-to-carefor project, or go whole hog and build a mini-boulder palace all decked out in Hens and Chicks and mosses. Performs best in super-drained gravelly soil with lots of sun and dappled shade. We're offering a mix of varieties including reds, greens

and purples. Z3. (21/2" pots) **L7747 A**: 3 for \$17.75 **B**: 6 for \$29.50

Symphyotrichum Aster Also known as Starwort or Frost Flower. Native wildflowers with freely branching sprays of brightly colored flowers decorate the autumn landscape throughout the Northeast. Asters add hardy grace to the back of the wild border and will naturalize on banks or in the meadow—or just about anywhere there is a patch of receptive soil. Cut back slightly in early to mid June to induce an abundance of 11/2-2" rayed blooms from late

August into October. Deer usually don't eat them. Asters provide important late season nectar to hungry pollinators and a stunning color show for the eyes Plant 12–18" apart in light moist humusy soil in full sun with good air circulation.

S. laeve Smooth Blue Aster Organic 3-4' tall. Loose clusters of lavender-blue blossoms with yellow eyes. Smooth blue-green foliage. Z3. ME Grown.

L7748 **A**: 1 for \$9.00 B: 3 for \$24.00

S. novae-angliae New England Aster Organic 4-6' tall. Blooms range from bluepurple to lavender-pink with yellow eyes. Z3. ME Grown

L7749 A: 1 for \$9.00 B: 3 for \$24.00

Trollius Globeflower 20-28" tall. We are crazy about Trollius, which are like enormous fancy buttercups. Spherical to bowl-shaped flowers bloom in late spring, around the time of late tulips, on stems above the foliage. Excellent for cutting. The snazzy petal-filled flowers seem miraculous blooming so early in the season.

Palmately lobed, then further divided and toothed (buttercup-like) leaves form a mound. Ideal for a moist border, streamside, or naturalizing in a damp meadow though ours are thriving in well-drained garden soil. Plant 8–12" apart in moist heavy soil, full sun to part shade. Z3.

NEW! T. 'Golden Queen' Golden to deep orange sepals surround upright modified petals that resemble little licks of

L7751 A: 3 for \$16.00

NEW! T. 'New Moon' Doubled petals on a plate of sepals all shimmer in light cream to Chardonnay yellow.

L7752 A: 3 for \$16.00

Verbena stricta Hoary Vervain - Organic 12-48" tall. North American native. Long-lasting steeples of blue-violet blossoms held on square reddish-purple stems with fuzzy slate-green leaves. Attracts scads of pollinators, most notably the Buckeye butterfly. Birds will devour the seeds! In 1911, Eloise Butler wrote of hoary vervain growing in a neglected lot: "Large, downy leaves thickly clothe the stem. The flower spikes are long and slender, having close rows of seed pods at the base with a ring of bright blue flowers above and tapering at the tip with the still unopened buds. The garden Verbena, unlike this weed, has the lazy habit of lying with its elbows on the ground and getting covered with dirt." Spreads by seed and will form nice clumps, even in dry soil. Plant 18" apart in full sun in well-drained soil. Blooms June through August. (For blue vervain, see page 65.) Z3. ME Grown.

L7753 A: 1 for \$9.00 **B**: 3 for \$24.00



CULINARY & MEDICINAL HERBS

The following plants have long histories of traditional medicinal or culinary use. It's up to you to educate yourself about the safety and efficacy of using plants for medicinal purposes. The statements in our catalog regarding traditional medicinal uses of plants have not been evaluated by the FDA The plants we sell are not intended to diagnose, treat, cure, or prevent any disease. Plants may take a year or more to establish before they flower; roots often take several years to reach harvestable maturity.

Achillea millefolium

Yarrow - Organic 18-30" tall. White flattopped flower clusters bloom June through September. Excellent orchard companion and beautiful addition to the perennial border, meadow, herb or moon garden. Nice in bouquets. Named for its use by Achilles to staunch battle wounds, has a centuries-old tradition of use as an external styptic. A natural antiinflammatory, yarrow has been used to regulate the menstrual cycle and combined with other herbs as a cold remedy and to reduce fever. Infusion of flowering tops stimulates healthy digestion and improves circulation. Plant 18-24" apart in full sun and well-drained soil. Species introduced to North American by early European settlers. Z3. ME Grown.

L7755 A: 1 for \$9.00 B: 3 for \$24.00

Acorus americanus Sweetflag 24-36" tall. Hardy herbaceous water-loving bog plant forms striking stands of broad sword-like foliage that smells sweetly of citrus and vanilla when crushed. A spathe-less yellow-green spadix the length of a finger pokes out in early summer and eventually develops into fleshy berries containing two to three seeds. Dried roots have been traditionally used as an aromatic bitter for digestive upsets. Spreads vigorously by rhizomes in quiet shallow waters, wet open marshes, and along the shoreline. Can also be grown in consistently moist garden soil, 12–18" apart in full sun or light shade. Not to be confused with the similar European species, A. calamus. Sustainably grown. Native across northern U.S. and southern Canada. Z3. ME Grown.

Allium schoenoprasum Chives Organic 12-14" tall. Edible spreading groundcover has a layman's reputation for warding off scab on fruit when planted around the tree. Is thought to act as an aromatic pest confuser, emitting bitter aromas that deter critters from grazing in the garden. Chives are good to eat from early spring to heavy frost. Add greens and starry purple blossoms to omelets for subtle savory onion flavor. Plant 12-18' apart in full to part sun. \vec{Z}_3 . ME Grown. (1-2" clump)

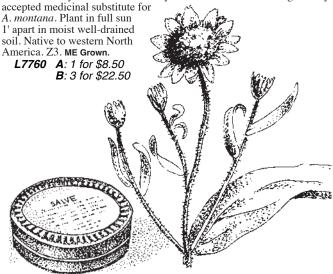
L7758 A: 3 for \$23.00

L7756 A: 3 for \$28.00

Althaea officinalis Marshmallow - Organic 5-8' tall. Small delicate 1" lavender-white flowers with darker lavender stamens bloom along the stalks of this beautiful towering medicinal plant. We've been drawn to marshmallow ever since we saw herbalist Deb Soule rub its soft velvet leaf against her cheek and explain how much the ruby-throated hummingbird appreciates the nectar of marshmallow flowers. The leaf, flower and mucilaginous roots are traditionally used to soothe the mucous membrane linings of the lungs and digestive tract, and to calm the lining of the urinary tract. Leaf is best used fresh for tea, and the dried roots are best when soaked overnight in cool water for tea. Harvest 4-year-old roots for medicinal use. Wonderful in a hedgerow and magnificent planted with black cohosh as they often blossom together in late July and into August. Readily self-sows. Plant 1-2' apart in light moist soil, part sun, part shade. Native to Europe and Asia. Z4. ME Grown.

L7759 A: 1 for \$9.00 **B**: 3 for \$24.00

Arnica chamissonis - Organic 8-12" tall. Low spreading groundcover with cheery bright yellow daisy-like flowers used externally in oils and salves to treat bruises, sprains and inflammation. Never take internally except in homeopathic preparations. In the right conditions a few plants will develop into a dense long-lived patch. Beneficial insect attractor. Blooms in July. Grows successfully in our climate and is a generally



Tea Time Perennials Collection A collection of five easy-to-grow perennial herbs to harvest and blend for satisfying herbal teas. All of these plants, in addition to tasting nice, offer nourishing medicinal benefits when steeped, both fresh and dried. No root harvesting, tincturing,

extracting or witchcraft necessary (although we like doing those things, too). Just stroll through your garden, pick the herbs that are calling to you. and put on the kettle. Play with different

combinations. Includes organic stinging nettle (boiling water removes the sting), organic lemon balm, organic chocolate mint, organic marshmallow and lavender. If any plants in the collection become unavailable, we'll substitute with something equally wonderful. (Note: stinging nettle and chocolate mint will spread; choose site with care, or plant them in pots. Cut nettle back

before it goes to seed.) All Z3. **L7790** A: Tea Time Collection, bundle of 5, \$42.00

Echinacea Coneflower 3-5' tall. Echinos means 'spiny' and coneflower's spiny seedheads are beautiful surrounded by a single row of reflexed petals These North American native plants are often over-harvested in the wild. Medicinal benefits vary among the different species. E. purpurea and angustifolia are considered the standard for making medicinal tincture. E. paradoxa shares some of the immune-stimulating compounds as purpurea but in our opinion is best planted for the birds and the bees as a complement to your purpurea patch. Leave the seedheads standing in fall for the birds. Tolerates wind, heat and drought once established. Will reseed. Plant 20–30" apart in full sun and light sandy soil. Z3

E. paradoxa Yellow Coneflower - Organic Bright pure-yellow flowers with drooping petals surround spiky dark brown seed cones—irresistible to gobbling goldfinches! Native to the Ozark Mountains and surrounding areas. ME Grown.

L7762 A: 1 for \$8.00 B: 3 for \$21.50

E. purpurea Purple Coneflower - Organic Reflexed lavender-purple petals surround the coppery yellow-brown seed cone. Attracts butterflies and other beneficial insects. Tincture roots of 3-year-old plants for a remedy that boosts the immune system; use it when you feel a cold or flu coming on. Native to eastern and central U.S. ME Grown.

L7763 A: 1 for \$9.00 **B**: 3 for \$24.00

Eupatorium perfoliatum Boneset Organic 5-7' tall. Also called Thoroughwort. Majestic native with flat-topped clusters of creamy-white to milky-lavender flowerheads atop fuzzy upright stems with deeply veined dark green diamond-shaped perfoliate leaves. Traditionally used to alleviate the symptoms of "breakbone fever," now known as dengue fever. Tincture of the flowering tops and leaves induces sweating, stimulates the immune system and acts as a mild anti-inflammatory. Traditionally used as a tea during flu epidemics. Peak bloom is mid to late August, providing a generous late-season supply of nectar for adult butterflies and other pollinating insects. A practical and fetching addition to the wilder part of the orchard and perennial border. Plant 3 apart in moist soil and full sun to dappled shade. Readily self-sows. Native to eastern North America. Z3. ME Grown

L7764 A: 1 for \$9.00 **B**: 3 for \$24.00

Lavandula angustifolia 'Munstead' Lavender 16-18" tall. Considered the hardiest lavender, with light lavender flowers. Sweet-scented flower spikes extend above aromatic silverygreen lanceolate leaves. Makes a nice border, rockery, slope or specimen plant. Compact habit lends itself to edging walkways Deadhead spent flowers for blooms all summer. Traditionally used to calm nervous excitability and relieve muscle tension. Plant 12-24" apart in full sun, in moist well-drained soil. Mulch to prevent winter heaving. Can be slow to show life in spring, so be patient. Z4.

L7765 A: 1 for \$10.00

Melissa officinalis Lemon Balm - Organic 18-24" tall. The Greek word melissa means 'honeybee' -

the plant in flower attracts them. Yellow-green scalloped lemony leaves are delicious in teas, salads, with fruit, or dried for sachets. Infuse leaves in oil for making potent lemony antiviral topical creams and salves. Plant in full sun in rich well-drained soil. Self sows. Some say Zone 4, but our clump in Zone 3 has been coming back strong for 13 years, even after our Grammy Ethel Lewis mowed it repeatedly with her John Deere! Native to Europe and Asia. ME Grown.

L7766 A: 1 for \$8.50

B: 3 for \$22.50

Mentha piperita Chocolate Mint - Organic 18-24" tall. Our favorite mint! Bright sweet peppermint-patty flavor is a must-have for any winter dried-herb supply, and we also love it fresh on a hot summer day. Freshen your breath, settle your stomach, brighten up fruit desserts, garnish ice

cream, flavor your favorite meat dish, or scent soaps and salves. Harvest the leaves before it goes to flower. As with any mint, plant it where you want it forever. Plant in full sun in any decent garden soil. We've seen it thrive in part shade as a living mulch around our crabapples. Some say Z5, although many of us have unstoppable patches in Z4. ME Grown.

L7767 A: 1 for \$8.50 **B**: 3 for \$22.50

Monarda Bee Balm Also called Bergamot or Oswego Tea. Beloved by bees, butterflies and one of the best hummingbird magnets nature has to offer! Wild and wily flowers form with tubular petals on pincushion heads borne above colorful bracts in July and August. Aromatic foliage. Good for borders, for wet areas and for cutting. Infusion of the aerial parts can be used to improve digestion by reducing flatulence. Delicious used as tea or added to meat and bean dishes. Plant 16–20" apart in moist soil, sun or shade; in shade its bloom time is longer but foliage is more susceptible to powdery mildew. In full sun, keep it mulched and watered. Self sows and forms a

M. didyma 'Panorama Reds' Organic 3-4' tall. Fabulous blooms in a diverse range of red shades destined to attract scads of butterflies and hummingbirds for your cats and kids to chase in vain. ME Grown.

nice clump over time. Z3.

L7768 A: 1 for \$8.50 B: 3 for \$23.00 M. fistulosa Wild Bergamot

Organic 3-4' tall. Our native
North American wildflower species with aromatic lavender blossoms. This is the species most commonly used for medicinal purposes. ME Grown.

L7769 A: 1 for \$8.50 **B**: 3 for \$23.00

Origanum vulgare Oregano - Organic 18-20" tall. Low-growing perennial with fragrant green and purple leaves and white flowers. This is a fine culinary oregano — dry the leaves and sprinkle them on pizza all winter. If given plenty of space in full sun, it will sprawl and attract a plethora of pollinators. Plant 24" apart in medium garden soil. Survives some winters in Zone 3, but we can safely say Z4. ME Grown.

L7770 A: 1 for \$8.75



Pycanthemum virginianum Mountain Mint - Organic 24-36" tall. Feed your local pollinators with this densely flowered native. White to light lavender flowers with tiny purple spots bloom July to August. Wispy upright branching foliage smells intensely minty when crushed. A strong infusion of the aerial parts makes a tasty minty tea, traditionally used to settle indigestion. (Avoid during pregnancy.) Spreads by shallow underground rhizomes and will ramble around if you let it, so choose planting location wisely! Prefers moist soil and will do well in full sun to part shade. Once established, it will grow well in a wide range of soils. Tolerates clay, heat and drought. Try growing it along the woodland edge—deer are not fond of this plant. Native to eastern U.S. from Maine to Michigan and south to Georgia and Texas. Z4. ME Grown.

L7771 A: 1 for \$9.00 B: 3 for \$24.00

Symphytum Comfrey Also called Knitbone.

Clusters of bell-like pinkish purple flowers dangle above the deep green bristled foliage. A bumblebee favorite. We scythe and gather up the leaves for mulch, or to add to compost piles or compost teas—it is rich in silica, nitrogen, magnesium, calcium, potassium and iron. Easy-togrow vigorous plant can be invasive; be careful where you plant it and control with regular harvest. Choose a site that will never see a rototiller or you will live to regret it (although the bees won't)!

Plant 16-24" apart in well-drained soil, sun or shade. Native to Europe and Asia. Z3.

S. officinale Comfrey 24-48" tall. Well known for its skin-soothing properties. Contains allantoin, promotes healing of skin and bone: also demulcent for lung and throat. Most herbalists agree that this species is the one to use medicinally. ME Grown.

L7772 A: 1 for \$8.75 **B**: 3 for \$23.00 C: 6 for \$42.00

S. x uplandicum 'Bocking 14' Russian Comfrey - Organic

24-48" tall. Similar to S. officinale, Russian comfrey is thought to have a higher pyrrolizidine alkaloid content. Avoid internal use. Highly recommended as an orchard companion and a living mulch around fruit trees. ME Grown.

L7773 A: 3 for \$22.50

Thymus vulgaris German Winter Thyme - Organic 10-15" tall. Fragrant sprawling perennial brings depth of flavor to soups, gravies, casseroles. Said to calm the nerves and soothe headaches. As good in salad dressings as it is in sore-throat remedies. Bees love its short lavender flower spikes. Plant

18" apart, full sun, in light sandy or loamy well-drained soil. Doesn't tolerate encroachment from taller plants, so give it elbow room. Native to Europe. Z4. ME Grown.

L7774 A: 1 for \$9.00 B: 3 for \$24.00

Urtica dioica Stinging Nettle - Organic 3-6' tall. The benefits of this plant outweigh the risk of a short-lived sting. Biodynamic gardeners use the dark green nettles to increase potency of neighboring herbs and to stimulate humus formation. Young shoots are high in minerals—the leaves are delicious steamed as early spring greens or dried and brewed as tea. Handle fresh and dry herb with gloves. Cooking or steeping removes the sting. Choose planting site carefully; nettle spreads readily, but cutting back before it goes to seed will help contain it. Both the rhizomes and leaves sting. An indicator of super-fertile soil where it volunteers. Plant in damp rich soil with high nitrogen content; thrives beside manure piles or the leaky side of your compost bin. Z2. ME Grown.

A: 1 for \$8.25 B: 3 for \$22.00

Verbena hastata Blue Vervain - Organic 5-7' tall. Elegant tall branching spikes of vibrant blue-purple flowers. Honeybees mingle amongst the blossoms all day. Used as a nervous-system tonic and mild sedative. Tincture of the fresh flowering tops is said to ease stressinduced neck tension, as well as help women to navigate premenstrual, perimenopausal and menopausal waters. Grows wild along streambeds and marshes but will happily grow in ordinary garden soil. Readily self-sows. Plant 1–2' apart in full sun. Native to North America. Z3. ME Grown.

L7776 A: 1 for \$9.00 B: 3 for \$24.00

Viola sororia Common Blue Violet Organic 6-10" tall. North American native with cheery blue-purple flowers in May and attractive heart-shaped dark green leaves, all edible Traditionally used as medicinal tonic for the heart. Cook the leaves as you would spinach, or eat them raw in salads for a nice dose of vitamins A and C. If you really want to get fancy, use the blossoms to make a beautiful bright purple syrup. Larval host plant for multiple species of butterflies We love it as a groundcover in our perennial gardens. Happily spreads. Plant 12" apart in full sun to part shade in average garden soil. Z3. ME Grown.

L7777 A: 1 for \$7.50

B: 3 for \$21.00



TENDER SUMMER BULBS

Spring-planted bulbs offer wonderful variety to the cutflower market and are a staple in old-fashioned gardens. The bulbs we offer here are (mostly) not hardy to northern winters. Smart and thrifty people lift and store them over the winter; the rest of us treat them as annuals

Begonia x tuberhybrida Tuberous Begonia We know what you're thinking. Who plants begonias, besides my Midwestern grandma?! If you live in the woods with limited sunlight, or your balcony is shaded, or you miss your grandma, tuberous begonias offer lush textures, intense colors and a tropical aura with retro glimpses of old-fashioned summers on the cool patio. Velvety flowers bloom all summer, drooping languidly amidst red-tinted foliage. Excellent bedding or container plants.

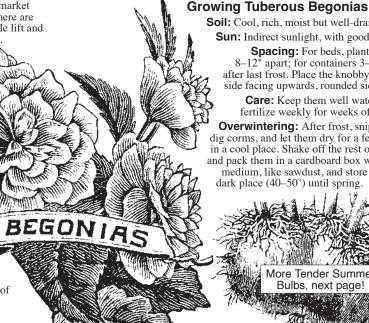
NEW! B. x t. 'Florence' 10-12" tall and cascading. Luscious double blossoms in swirls of rosy-pink and white will spill over the edges of your pots for an old-world patio-garden vibe. Soft green foliage. Cascading form, recommended for containers.

L7778 A: 3 for \$16.00 **B**: 6 for \$28.50

NEW! B. x t. 'Picotee Sunburst' 12-18" with

an upright form. Double blossoms in radiant yellow-apricot are finely edged in red. Glossy textured green foliage. A burst of sunshine, whether in beds or containers

L7779 A: 3 for \$20.00 **B**: 6 for \$36.50



Soil: Cool, rich, moist but well-drained soil. Sun: Indirect sunlight, with good air flow.

Spacing: For beds, plant 2" deep, 8-12" apart; for containers 3-5" apart; after last frost. Place the knobby concave side facing upwards, rounded side down.

Care: Keep them well watered, and fertilize weekly for weeks of blooms.

Overwintering: After frost, snips stems, dig corms, and let them dry for a few weeks in a cool place. Shake off the rest of the soil and pack them in a cardboard box with a dry medium, like sawdust, and store in a cool dark place (40–50°) until spring.



more Tender Summer Bulbs

Crocosmia x crocosmiiflora 'Lucifer' 24-36" tall. Glows in the garden! Midsummer sprays of bright red flowers open from bottom to top on long arching bronze stems, like bursts of flame above gladiolus-like foliage. Lucifer is Dutch for 'match.' Frequented by the ruby-throated hummingbird all day long. Grows well in pots. Makes a long-lasting cutflower if you can harden yourself enough to steal them from the birds. Plant in full sun, 3" deep, 3" apart in moist well-drained soil. Ours is multiplying and overwintering with no protection in Zone 5. Colder zones should treat these as annuals.

L7780 A: 10 for \$10.50 B: 20 for \$18.50 C: 50 for \$41.00

Dahlia A must-have for late summer and fall bouquets. Easy to grow and awfully fancy. **Dinnerplate types** have enormous blooms as big as your face. **Cactus types** have pointy petals that are rolled or "quilled." **Decorative types** will have you contemplating sacred geometry with their evenly spaced, perfectly curled petals.

Native to hot parts of the Americas and first developed as a food crop, ornamental dahlias are descended from years of breeding and crossing *D. pinnata* and *D. juarezi*.

NEW! D. 'Cafe au Lait' 44-48" tall. Dinnerplate type. One of the most sought-after dahlias for floral arrangements. Massive 8–10" blooms range from cream and champagne to light blushing pink, purple and buttercream. We wonder at the name—milky coffee surely doesn't do

justice to this flat-out showstopper. **L7783** A: 1 for \$11.50 **B**: 3 for \$30.50

NEW! D. 'Chat Noir' 42-48" tall. Cactus type. Dahlia devotees will purr when these huge 5" blooms open in tones of red, purple and black. Described in the trade using every iteration of red wine, from Burgundy to Bordeaux.

L7781 A: 1 for \$9.50 **B**: 3 for \$25.00

NEW! D. 'Sebastian' 36-40" tall. Decorative type. 3" bloom reverberates in salmon, peach and watermelon to a concentrated center of deep coral with occasional flecks of yellow. Dark green stems and foliage intensify the effect. Somewhat compact habit.

L7782 A: 1 for \$10.00 **B**: 3 for \$26.00

Gladiolus Sword Lily Showy summer bloomer excels as a cutflower. Each stalk is covered with 10 or more open funnel-shaped flowers that bloom from bottom to top. Named for their sword-like leaves; a gladiolus is a small Roman sword. Each stalk blooms for about a week, roughly 8 weeks after planting.

Large-Flowering Glad Mix 34-38" tall. A mercurial mix of colors, stripes, stipples, bicolors, tricolors—what fun!

L7784 A: 10 for \$8.50 B: 20 for \$15.00 C: 50 for \$30.00

Nanus Glad Mix 22-26" tall. Marvelous miniature glads in mixed colors, bicolors and butterfly types. Very satisfying clumped in a bed or as cuts. They're just darling! Some suppliers offer these as Hardy Glads, supposedly hardy in Zone 5. This is optimistic unless you have very good snow cover or winter mulch. Even with mulch, we'd say Z6.

L7785 A: 12 for \$10.25 **B**: 24 for \$17.00

G. murielae Fragrant Gladiolus 12-18" tall. Also called Acidanthera. Nothing like the common glad, this sword-like foliage is topped by wonderfully scented star-shaped 2" white flowers with mahogany-purple centers on arching stems. Elegant in the garden or as a cutflower; another name is **Peacock Orchid**. Culture like gladiolus, but blooms slightly later. Z7.

L7786 A: 20 for \$11.25 **C**: 60 for \$26.00

B: 40 for \$19.50

Growing Gladiolus

Soil: Prefers moist well-drained soil. Mulch to retain moisture and suppress weeds.

Sun: Full

Spacing: 5" deep, 8" apart, after danger of frost.

Planting schedule: Stagger plantings for a long season of blooms: First planting in early to mid-May, then again every two weeks through mid June. This will keep the flowers coming July through August.

Harvest: Hill or stake to keep plants from keeling over when flower spikes get top heavy. Cut when 2–3 blossoms have opened, taking care to spare the leaves, which feed the developing corm.

Overwintering: Dig corms after the tops have died, discard the old one, clean the new one, allow it to dry off, and store in paper bags in a well-ventilated cool (35–45°) dark dry place.

Ranunculus Persian Buttercup 12-16" tall. Giant double buttercups on steroids with a multitude of thin petals arranged in a quartered rose-like fashion. Blooms from late spring into summer. Good for borders, pots and cutting. Fern-like foliage. Z7.

Aviv Pastel Mix A scrumptious combination of creamy whites, soft yellows and picotee-type bicolor creamy-yellows dipped in rose.

L7787 A: 10 for \$15.00 B: 20 for \$25.00 C: 50 for \$50.00 Aviv Pink All pink as a stand-alone set, or to mix with the pure whites, or any bunch of garden flowers.

L7788 A: 10 for \$15.00 B: 20 for \$25.00 C: 50 for \$50.00

Aviv White Just white. Mix with pinks or as an elegant snowy stand-alone set. Brings romance to any mixed bouquet from your garden.

A: 10 for \$15.00 **B**: 20 for \$25.00 **C**: 50 for \$50.00

Growing Dahlias

Soil: Prefers moist well-drained soil.

Sun: Full to part sun.

Spacing: 3–4" deep, 12–24" apart, after danger of frost. Set tubers flat with eyes facing up.

Overwintering: Dig tubers after the first frost, dry them off and store them in a well-ventilated cool (35–45°) dark dry place until replanting the next spring.

Growing Ranunculus

Soil: Prefers moist well-drained soil.

Sun: Fu

Sprouting: Ranunculus thrive in cool spring weather and take a few months to mature. Get started as early as possible by sprouting corms.

Soak bulbs in cool water for 3–4 hours. Fill a planting tray (with drainage holes) with 2" of slightly moistened potting soil. Set in the soaked corms "claws" down, and cover with 1" of soil. Set tray in a cool dark place (40–50°) for a few weeks. Keep soil moist, not wet. When little white roots have developed, the corms are ready to be planted out. Protect from frost.

Spacing: 2" deep, 8" apart.

Overwintering: If you are very thrifty, dig corms and store as with other tender bulbs, but expect smaller blooms next season. For best blooms, plant fresh corms.

(Zones 7 and warmer can leave them in the ground.)



Guide to Planting and Care

When you get your order: Immediate Care DO NOT ALLOW ROOTS TO DRY OUT AT ALL!!!

When your new trees and shrubs arrive, they need to be planted as soon as possible. Don't be deterred by snow. If you can dig a shovel into the ground, plant your trees. If you wait until spring is in full swing, your plants might become stressed and have a hard time recovering.

If frozen ground makes immediate planting impossible, follow the instructions below and all will be well. Why do we send plants even when there is snow on the ground? The weather may be fickle but we must be steady. Bare-root plants need to move out of storage and travel to their permanent homes before or as they are breaking dormancy, but not much later. We must follow a tight shipping schedule regardless of regional conditions. We begin shipping in March and continue into spring, sending orders by climate zone, warmest regions first.

If you can't plant immediately and are unable to store or heel in plants as instructed below, ordering bare-root plants may not be right for you.

If You Can Plant Woodies Within 48 Hours (Ideal)

Leave the plastic wrapping around the root ball until you are ready to plant. Add some water to re-moisten the packing material, and store your trees and shrubs in a cool shaded place like a shed, barn or cellar. Avoid heat and sunlight.

If You Cannot Plant Within 48 Hours

You can keep plants for a week or two by following one of these temporary measures and continuing to water as needed:

- Fold the plastic back from around the tops of trees and shrubs. Keep the damp shredded newspaper around the roots and re-wrap the plastic around the root ball, packing firmly to eliminate air pockets. Water as needed to keep the roots moist, but don't let them stand in water. Keep the trees in a cool shaded or dark place like a shed, barn, cellar or garage, but don't allow the plants to freeze before you get them in the ground. Avoid heat and sunlight.
- You could also "heel in" your trees in a protected cool shady spot. Dig a trench or turn back an appropriate amount of earth and bury the roots; tamp firmly to remove air pockets. Water thoroughly. Plant in final location as soon as possible.

Caring for Other Plants Until Planting Time

Asparagus

Store asparagus roots dry and uncovered in a cool shaded place.

Hops

Refrigerate slightly moistened rhizomes in a plastic bag until planting.

Horseradish & Rhubarb

Open package slightly to allow the plants to breathe. They should be fine left in their packaging and kept in a cool place (ideally 35–50°). Keep them moist but not wet.

Mushroom Spawn

Refrigerate in packaging until ready to use.

Strawberries

We ship with the roots slightly on the dry side. If it's going to be a while until planting, mist the roots and re-cover. Refrigerate until you are ready to plant. When it's time to plant, do so in the evening or on a cloudy day.

Herbaceous Perennials

Open bags and check the stock immediately. Roots and crowns should be firm and pliable, not squishy or brittle. Surface mold is harmless and will not affect the plant's future performance. Store plants in their packaging in a cool (35–40°) location until you are ready to plant. If it's going to be awhile, you can pot up your perennials. See page 56 for more detailed perennial planting instructions.

The Perfect Tree Label

Commercially available garden labels do not last. Permanent marker fades. Aluminum tears off in the wind. And so on. We make our own using vinyl siding. It works so well, we should remove it from all the houses and make it all into plant labels! It's inexpensive, or easily salvaged, and you can make dozens from a single piece of siding. Cut siding into strips using a utility knife. Snip strips to length using hand pruners. Drill a hole at one end. Attach with wire. Write on labels with pencil, NOT a marker. Pencil will last for decades.

The basics of tree care outlined here are meant to get you started. Obviously, we can't tell you everything you need to know in a few pages. Some specific information, like location or soil preferences of particular plants, is in the item descriptions. A soil test is useful in determining the specific needs of your site. Fedco's Organic Growers Supply offers a soil testing and fertilization recommendation service. Learn more at fedcoseeds.com.

Reading, observation, trial and error, and talking with other growers and extension agents can expand your knowledge of trees and shrubs. Consult the OGS book list for recommended reference books. Also, find useful links on our website.

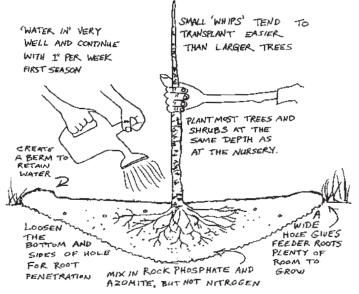
General Planting Directions for Trees and Shrubs

The best way to ensure your plants will thrive is to follow our cultural requirements. Choose the right site for the particular plant. Add soil amendments only as needed. Many native plants don't require any fertilization. Fruit trees may need more. (See next page for fruit tree fertilization recommendations.)

To reduce transplant shock, plant on cool cloudy days in the early morning or late afternoon. Soak roots of deciduous trees and shrubs in water for up to 24 hours before planting, but not longer. Keep the roots from drying out; even a few minutes in the sun and breeze can damage a tree or shrub. Keep them watered and covered until the moment you set them in their planting holes!

Follow these steps for planting:

- 1. Dig a large hole, at least twice as wide and about as deep as the root system. Most roots grow laterally and need plenty of room to spread out. Your trees will benefit if the hole is at least 3' wide.
- 2. Loosen up the soil at the bottom of the hole and especially around the sides. For fruit trees, if you haven't already used our *Deluxe Fall Preparation Method* (next page), you may add a 3-lb bag of **Fedco's Hole-istic Spring Planting Mix** (available in our Seeds & Supplies catalog, or on our website), or well-aged compost and mineral fertilizers like rock phosphate or Azomite, but *not* raw manure or other nitrogen sources. Incorporate into the soil, then make a mound at the bottom of the hole over which to spread the roots.
- 3. Examine the plant for a "dirt line" or a change in bark color indicating nursery depth. (This is different from the graft line.) Generally, you should plant trees and shrubs at the same depth they grew in the nursery. Set the plant in the hole and spread the roots out around the mound. Make sure the roots are not circling in the hole. It's better to trim roots a bit than coil them. Hold the plant at the right depth as you backfill the soil around it. Tamp firmly to remove air pockets.
- **4.** Water immediately. Don't skimp on the initial watering; make sure there's plenty to settle in all the loosened soil. Wiggle the trunk as the water seeps in to ensure no air pockets remain around the roots. Leave a berm around each tree so water will not run off. Keep trees well water throughout the first summer. They require the equivalent of 1–2" rain per week. Longer deeper soakings are effective; frequent sprinklings are not.
- **5. To remember which varieties you planted,** paint a map of the orchard on your wall, make a spreadsheet, or replace the plastic Fedco plant tags with permanent vinyl tags. See below left.



Choosing a Site for Fruit Trees and Berries

The best sites for fruit crops have well-drained fertile soils, protection from wind, good air drainage and full sun. A gentle slope and 6–8 hours of full sun per day is ideal. Good air flow will moderate frosts and fungal disease. If possible, avoid "frost pockets."

Sunny south- or west-facing slopes are not advisable for less hardy varieties. These slopes tend to warm up before the danger of frost has passed. Trees may flower prematurely and then be damaged by frost, causing loss of fruit. South and west slopes may also have widely fluctu-

ating early spring temperatures that can damage less hardy trees.

Soil pH for fruit trees should be between 5.5 and 8.0, toward the lower end for apples, the higher end for peaches, and in the middle for others.

Fruit species have optimal space requirements. See chart, next page. Do not plant trees where power lines will interfere with them.

Fall Preparation or Spring Initial Feeding for Fruit Trees

If you're interested in preparing locations for your trees this fall, or for feeding newly planted fruit trees, the following amendment recipe should address most sites in the eastern U.S., which tend to be acidic and moderate to low in calcium and phosphorus. You'll also find all the amendments below on our website.

Deluxe Fall Preparation Method

- Without digging the hole, cover an area 4–6' in diameter with:
 - 5 lb gypsum or Hi-Cal lime
- 5 lb colloidal phosphate (short-term calcium and phosphorus)
- 5 lb Azomite (long-term minerals and trace minerals)
- 5 lb granite meal (for improved soil texture)
- 2-3 lb Hum-Amend Max (aids mineral and rock-powder breakdown)
- For building high levels of humus, also add:
 - 2 lb alfalfa meal
 - 2 lb bone char
 - 2 lb kelp meal
 - 2 lb blood meal
- 100 lb compost (1/8 yard)

• Or let us do it for you by using Fedco's Fall Fruit Tree Prep Mix, one 32-lb bag per planting hole.

Cover with a 3-4" mulch of lawn clippings, leaves or wood chips which will smother the sod, conserve moisture, prevent leaching and provide a habitat for soil organisms to break down the recipe. In the spring, pull back the mulch and dig your tree hole, incorporating the mineral supplements and compost into the backfill.

If you didn't get around to fall prep, you can apply this same mix as a mulch to your newly planted tree in the spring.

Simpler Method

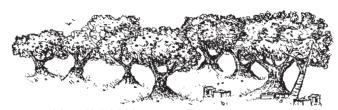
Forgo the soil amendments and simply pile 1–2 wheelbarrows of compost on each planting-hole site. If you live by the ocean, add a couple wheelbarrows of seaweed. Then cover with mulch. In the spring, pull back the mulch and plant your fruit tree, incorporating the compost into the hole as you dig.

Feeding Older Fruit Trees

Cover the surface of the ground out to the tree's drip line with the same materials listed above, or with Fedco's Fruition Mix. For larger trees (five years and older) increase the mineral amount to 10-15 lb each.

540

For ancient trees you can use up to 25 lb of each mineral, or Fedco's Ancients Rise Mix, in a ring beneath the drip line. Mulch as above. All Fedco-formulated mixes are available on our website.



Initial Pruning at Planting Time

All Trees and Shrubs

Prune any branches that were broken during shipping. Sometimes we need to prune a central leader in order to fit a tree into a shipping box; don't worry—a new leader will grow from the topmost bud. Prune all dead or injured branches and roots. Further pruning of most trees is not necessary at planting time.

Do not prune tops or prune or bend tap roots of nut or oak trees unless necessary

Find information on pruning flowering shrubs on p. 47.
Conifers (p. 43); roses (p. 48-49); and lilacs (p. 50) benefit from special pruning especially in later stages of growth.

All Fruit Trees

Avoid excessive pruning on young trees, as it can delay bearing. It's okay to cut off extra leaders and a few lateral branches to establish the tree's basic shape, but keep in mind that every time you prune potential leaf-

bearing branches from a young tree, you set it back. The tree will grow quickly and fruit sooner if you allow it to maximize photosynthesis. Once it begins to fruit, you can prune annually. Always remove suckers or root shoots below the graft.

On peaches and plums, the trees may want to develop 2-4 leaders, or an openvase shape. Always prune just above a good strong bud that faces a direction you'd like your branch to grow. On apple and pear trees, you may choose to either leave the central leader alone and let it grow or cut it back according to the instructions below. Either way is acceptable; it's a matter of personal preference.

Apple Trees

Apple trees will almost always benefit from light initial pruning to establish shape. After that, refrain from pruning until the tree begins

• Year one (initial planting time): If the tree is a branch-less "whip," you may cut the top back to a strong bud about 3-4' from the ground. This will encourage branching. If the new tree arrives with branches, prune off all but 3–4 branches at the height you'd like for your first tier, about 3–4' from the ground, or

higher if you prefer. The lowest scaffold (branch layer) should be very wide to collect as much sun as possible. If too low, these long branches will rest on the ground under the weight of fruit, and the deer will have a field day. Also, it becomes difficult to mow under and to mulch around the base.

Some folks choose not to prune at the time of planting and wait to shape the tree in subsequent years. This method is fine, too.

• Year two: Trim off root suckers or other odd branches that come up from around the base. Otherwise, leave the tree alone and let it grow.

 The next few years: If something looks really crowded, broken or dead, prune it. Otherwise, leave your tree alone and let it grow. If you don't fuss over it too much, you'll get fruit sooner!

Pruning Established Fruit Trees

Once your fruit tree begins to bear, you should prune annually. Good pruning brings sunlight to all parts of your tree. Maximum sunlight encourages more and higher-quality fruit. Sunlight also encourages fruit buds to form for next year's crop. Good airflow discourages fungal diseases and promotes greater spray penetration. There's an old saying that a bird should be able to fly through your fruit tree. A well-pruned tree will produce larger fruit and will tend toward more annual bearing.

Most pruning should be done in late winter or early spring. We recommend a good-quality pair of hand shears and a lightweight pruning saw. You may also wish to invest in long-handled loppers, a pole pruner or a pole saw. Keep your pruning tools sharp for smooth clean cuts.

Any good book on growing fruit trees will have the information you need. Consider attending a local pruning workshop—MOFGA in Unity, ME, offers workshops in late winter. Pruning is not difficult and will make a huge difference.



Mulch

Keep weeds and especially grass away from new trees and shrubs. Apply a 2–4" mulch of composted material—leaves or wood chips—out as far as the drip line. Avoid mulching trees with hay, a preferred vole habitat. A ½–1" topdressing of alfalfa meal beneath the mulch may substantially reduce transplant shock. Keep mulch back several inches from the tree trunk. We lay down cardboard or newspaper and spread mulch on top of it. Mulch encourages earthworms, holds moisture, keeps down weeds, insulates against excess heat and cold, aerates and loosens soils, builds humus and fertilizes feeder roots, 90% of which are within 6" of the surface.

Staking & Crooked Trees

Newly planted standard-sized and semi-dwarf fruit trees and ornamental trees seldom need staking. If your tree is in a very windy site or develops a leaning habit, staking may help.

a leaning habit, staking may help.

Dwarf apple trees do require staking. Drive a stout post near the tree. Wrap the tree trunk with a scrap of burlap or rubber to protect against abrasion. Secure the wrapped part of the tree to the post with string or wire. Tie the tree somewhat loosely, as a slight rocking motion will encourage rooting. Once roots are well anchored, the stake may not be needed. Mark small trees with a stake with ribbons to warn operators of lawn mowers, tractors, cars and skidders.

Some tree varieties naturally tend to grow a little crooked (like Redfield apple!) and they won't grow straight no matter how much room we give them in the nursery. To mitigate this issue, you may try staking. You may also try planting the crooked tree so the roots are at a slight angle and the top is more upward-pointing, as if to split the difference. Most trees do not grow perfectly straight. Retraining your eye to appreciate a tree's unique form may be easier than fighting nature.

| Spacing of Fruit Tre | es, Nut Tree | es & Berries |
|----------------------------|------------------|-----------------|
| | between plants | between rows |
| Apples, Dwarf | 5-10' | 15' |
| Apples, Semi-dwarf | 15–20' | 15' |
| Apples, Standard | 20–25' | 20–25' |
| Asparagus | 1–2' | 4' |
| Blackberries | 3–4' | 6–12' |
| Blueberries & Saskatoons | 3–6' | 8-10' |
| Grapes | 8' | 8-10' |
| Hazelnut | 4–6' | hedge |
| Nut trees - orchard | 35' | 35' |
| Nut trees - forest | 20' | 20' |
| Pears, Asian Pears, Quince | 15–20' | 20' |
| Raspberries | 2' | 6–12' |
| Stone Fruit | 15–20' | 15–20' |
| Strawberries | see instructions | s, p. 30 |
| Sweet Cherries | 25' | 25' |



Orchard Ladders: Sturdy lightweight traditionally shaped wooden orchard ladders have wide bottoms for stability and narrow tops for easy handling and placement. Contact the manufacturer:

Peter Baldwin, (207) 322-5291 baldwinpetert@gmail.com baldwinappleladders.com

Beware the Apple Borer!

In many parts of central and northern New England the roundheaded appletree borer, *Saperda candida*, is the number one enemy of young apple, crabapple and quince trees. If you are growing young apple trees in these locations, you must protect your trees from this pest. Farther south and north the borer may not be an issue. If you don't know if they are a problem in your area, check with any grower near you: they'll know. Otherwise, err on the side of

in your area, check with any grower near you: they'll know. Otherwise, err on the side of caution. Borers also feed on other members of the rose family, such as pear, hawthorn, Aronia and Amelanchier.

Borer beetles lay eggs under the bark near

the base of the tree. The developing larvae tunnel through the wood, weakening the tree until it eventually falls over. If your tree looks like it's struggling—with wilting or dying leaves—it could have borers. The trouble sign is small deposits of orange sawdust, called frass, at the base of the tree. Check lower trunks for frass and tunneling in late May, and again in September. Left unchecked, borers usually mean death for young trees.

Here are our strategies for controlling borers:

Coat the trunks with Neem or Paint

• With Neem Oil We have been experimenting with several methods for treating borers using neem oil. It's easy and effective. All you need is a paintbrush and undiluted neem oil warmed to liquefy. Paint neem on young tree trunks from the soil line up 12". We apply one time only around July 1. If applied in May or early June, the neem may dry and become ineffective.

Note: We have noticed that the adventitious root bumps of M111 show some sensitivity to undiluted neem. We're having good results spraying a 2% neem solution on the trunks of M111 and other clonal rootstocks.

• With Paint After neem oil, paint is likely the best deterrent. It's easy and requires no hard-to-find ingredients. Do not apply paint until trees have been in the ground for 3–5 years. Until then, be sure to continue monitoring them for signs of borer.

Recipe: Mix white interior latex paint with joint compound. (The stuff you smear on sheet rock joints and nail holes—you can buy a small tub at any hardware store. Make sure to use *interior* paint, as some exterior paint formulations contain ingredients that can harm the tree's phloem.) The consistency should be thick but still quite easy to paint, not glob on. Repaint as needed. This mix will help deter borers and also make detection of infestations easier. Once you locate a borer hole, you'll have to cut or blast it out (see below). Look for the orange frass!

Cut It Out Once you've identified a hole or soft spot in the trunk, insert a wire and dig around until you locate and kill the larva. Cut away soft spongy pockets with a knife. Even serious carving is less harmful to the tree than leaving the larvae alive inside. We've found that a little neem oil brushed on the wound after borer hunting can prevent further infestation or fungal growth, and may even speed up the development of callus tissue

Blasted Borers When you discover a soft spot or hole in the tree, get yourself a can of compressed air (for cleaning computers). Put the long skinny tube nozzle up to the hole and give it a blast. Should do the trick.

The Polyculture Deterrent Borer beetles thrive in shady moist warm environments. Keep grass back at least 6" from the tree base. Trials in our "functional" orchard suggest that a mixed polyculture environment may disguise the apple trees and fool the borers. We plant woody and herbaceous perennials around the trees, keeping them back 12" or so. Borers are lazy opportunists. If there are a lot of apple trees within easy reach, they will attack. Otherwise, you may never see them. The polyculture orchard may present too much work for them.

Soil testing & organic fertilizer recommendation service

Which soil amendments do you choose and how much do you apply? Don't guess—test! Fedco can help. We'll send you a soil test kit and sampling instructions, plus a postage-paid box to return your soil sample and test form to the Maine State Soil Lab. Once your results are in, we'll offer customized recommendations for how to correct any deficiencies or imbalances in your soil. Cost is \$62. Learn more about this service in our Seeds & Supplies catalog, or on our website.

Scab in the apple orchard

Apple scab (*Venturia unaequalis*) may be the most challenging disease for the New England apple grower. Scab is a fungus, spread by spores that overwinter in fallen fruit and leaf litter, rising up in rainy spring weather to cause grief all over again. It appears as small rough black patches on the fruit or foliage. A bit of scab is not a bad thing. It won't hurt you or your tree or fruit. Some growers actually believe that a small amount of scab

triggers a beneficial self-protection response in the apple. But a lot of scab can destroy the fruit and even kill the tree. Severity of infection can vary depending on the year, the site, and the variety.

With organic or conventional fungicides as a last resort, what can you do to avoid or minimize scab damage in your trees?

• Avoid susceptible varieties. Although nearly all apples are susceptible to some extent, certain varieties are especially vulnerable to scab. In particular, McIntosh and its relatives are scab magnets. These include Cortland, Fameuse and Macoun. If you grow these, you'll probably struggle with scab in your orchard. If you can avoid these varieties, you may be able to keep scab to a tolerable level without spraying fungicides. Most heirlooms can be susceptible but should be quite tolerant as long as

the more highly susceptible varieties are kept away.

In 1945, Purdue, Rutgers and the University of Illinois began a collaboration to develop scab-immune varieties. Many of these have PRI in their names. (Prima, Pristine, Williams Pride, etc.) They bred the varieties using *Malus floribunda* as a parent. It contains a gene that imparts scab immunity to the fruit. By crossing and recrossing, they were able to isolate and include this gene in the final introduction. We've offered some of these varieties, including GoldRush from the PRI program, and Liberty from the associated New York breeding program. If you like the fruit from these varieties, growing them can be a good strategy for avoiding scab.

• Thin the fruit. In late spring or early summer, we thin all our tree fruit, removing enough fruitlets that the mature fruits won't touch. Fruit wants air circulation. Insects also like those places where fruits rub against each other.

• Clean up drops and fallen leaves. Scab lives in the fallen fruit, as do insects. Eat the drops, make them into cider, feed them to your livestock or compost them—just don't leave them at the base of your trees. Some farmers let livestock in the orchard to eat the drops. Fall mowing shreds up fallen leaves helping them to decompose quicker, adding nutrients back into the soil. Or you can rake leaves and burn or compost them. By practicing good hygiene in the orchard, some growers have been able to grow good McIntosh and other disease-prone varieties organically.

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or order online at fedcoseeds.com/ogs

Protecting Trees from Mice and Voles

Fruit trees and ornamentals are sometimes girdled by mice or voles eating the bark. Girdling will usually kill the tree or shrub. Keep the grass mowed in the fall and remove large mulch piles from near the trunks. Rodents like to nest in hay more than in wood chip mulches.

The danger is greatest in winter. A wrap of hardware cloth or a plastic spiral tree guard (available on our website) can protect your tree from being girdled. Stomp around the trunks after each fresh snowfall to create a packed-ice barrier to prevent mice from traveling beneath the snow.

If you use screening or plastic spiral tree guards on apple, quince or crabapple trees, be sure to remove them from April to October, as they attract borers if left on the tree in the summer.

Our trials show that a mulch of wood chips surrounding young trees greatly reduces the chance of summer vole damage. Tall grasses invite them in. The polyculture model may provide cover for the voles and can result in summer vole damage. So keep the tall perennials back about 12" from the tree.

Also, make your orchard hawk friendly by planting natives and by leaving some tall trees or snags standing nearby.

Voles Don't Like Narcissus!

For many years we've been planting daffodils around the base of some of our apple trees. No particular

reason; it just looks great. Come to find out you can beautify your orchard and deter voles at the same time. Plant daffodils in a ring a foot or so away from the base.

Tunneling voles don't like the bulbs and will veer away.

Caterpillars

Most caterpillars will not damage healthy plants and are important members of the environment. However, a few kinds, such as tent caterpillars and browntail moth caterpillars, are extremely destructive to fruit trees. You'll know when you see them—they hatch in large crowds and rapidly defoliate plants. Vigilant daily observation, manual collection and disposal are necessary from mid-summer to fall.

Be careful handling browntail nests. They can cause a severe rash.

A simple and timely spray of BT (available on our website) can be highly effective at controlling excessive caterpillars.

Aphids and ants

Aphilds and a lot of damage to apple trees and they make the young leaves look gross. Often when you see aphids you will see ants climbing up and down the tree feeding them. Here's an easy solution. Wrap a piece of stiff paper about 6" wide around the trunk about a foot or two off the ground. Tape this sleeve to itself but not to the tree. Smear Tanglefoot (available in our website) on the paper. Ants will not cross the barrier and, without the ants, the aphids will die. In a day or two no more aphids.

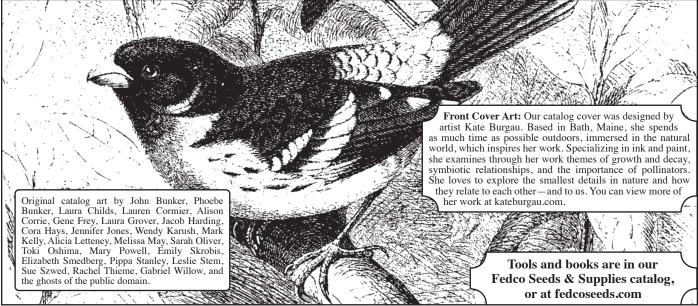


Oh Dear, Deer!

The best deer protection is a dog in the yard. If you don't have one or if your orchard is too far from the house, an 8-foot deer fence will work.

Some people have good luck with electric fences. Small protective enclosures for individual trees can be made by circling

your tree with a cylinder of chicken wire or other fencing with t-posts to stabilize the cage.



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|--|----------------|---|-----------|--------------------------------|----------|------------------------|----------|---------------------|----------------------------|
| Index | Page | Chestnut | 40 | Ginger, Canadian | Wild 56 | Monkshood | 55 | Shadbush | 29,44 |
| Abies | 43 | Chives | 63 | Gladiolus | 66 | Morus | 21 | Shade Trees | 41-42 |
| Achillea | 55, 63 | Chokeberry | 44 | Gleditsia | 41 | Mulberry | 21 | Siberian Iris | 59 |
| Aconitum | 55, 65 | Cider Apple | 16-17 | Globeflower | 62 | Mushrooms | 54-55 | Sneezeweed | 58 |
| Acorus | 63 | Clethra | 45 | Globe Thistle | 57 | Nepeta | 60 | Solomon's Seal | 62 |
| Allium spp. | 55, 63 | Collections | 43 | Goldenrod, Stiff | 60 | Nuts | 39-40 | Spicebush | 46 |
| Althaea | 63 | Apple | 15 | Grape Grape | 34-35 | Oak | 42 | Spiraea | 51 |
| | 29,44 | | 20 | Grape Groundcovers | 51-52 | | 60 | | 56 |
| Amelanchier | | Pear | 20 25 | | | Oligoneuron | | Spiraea, False | 43 |
| Amsonia | 56 | Stone Fruits | 25 29 | Hamamelis | 46 | Onion, Flowering | | Spruce | |
| Aquilegia | 56 | Blueberry | | Hazelnut | 40 | Oregano | 64 | Steeplebush | 51 |
| Apple | 4-18 | Elderberry | 30 | Heartnut | 40 | Osage Orange | 41 | Stewardship Appl | |
| Arctostaphylos | 51 | Strawberry | 31 | Heather | 51 | Papaver | 61 | Stinging Nettle | 65 |
| Arisaema | 56 | Cane Fruits | 33 | Helenium | 58 | Peach | 23 | Stone Fruit | 22-25 |
| Armoracia | 53 | Food Forest | 39 | Hemerocallis | 58 | Pear | 19-21 | Strawberry | 31 |
| Arnica | 63 | Birdsaver Shrubs | | Hens and Chicks | | Penstemon spp. | 61 | Sumac | 47 |
| Aronia spp. | 44 | Rose | 49 | Hickory | 39 | Peony | 60-61 | Summersweet | 45 |
| Asarum | 56 | Lingonberry | 52 | Honeylocust | 41 | Perennial Plants | 55-65 | Sweetflag | 63 |
| Asclepias spp. | 56 | Tea Time Perenn | ials 63 | Honeysuckle, Bro | own's 35 | Perovskia | 62 | Sword Lily | 66 |
| Asian Pear | 21 | Columbine | 56 | Honeysuckle, Bus | sh 46 | Persian Buttercup | 66 | Sycamore | 41 |
| Asparagus | 53 | Comfrey | 65 | Hops | 35 | Philadelphus | 47 | Symphyotrichum | 62 |
| Aster | 62 | Coneflower | 64 | Horseradish | 53 | Phlox | 62 | Symphytum spp. | 65 |
| Astilbe | 56 | Conifers | 43 | Hosta | 59 | Picea spp. | 43 | Syringa spp. | 50 |
| Astrantia | 56 | Cornus spp. | 45 | Huckleberry | 29 | Pine | 43 | Thuja | 43 |
| Baptisia | 56 | Corvlus | 40 | Humulus | 35 | Plantanus | 41 | Thyme | 65 |
| Beach Plum | 47 | Crabapple | 18 | Iris spp. | 59 | Plum 2 | 4-25, 47 | Tilia | 42 |
| Bearberry | 51 | Cranberry, America | | Jack-in-the-Pulpi | | Polygonatum | 62 | Tools | 55 |
| Beardtongue | 61 | Cranesbill | 58 | Joe Pye Weed | 57 | Poppy, Oriental | 61 | Trollius | 62 |
| Bee Balm | 64 | Crocosmia | 66 | Juglans spp. | 40 | Pruning | 47,68 | Tuliptree | 41 |
| Begonia | 65 | Cvdonia | 21 | Juneberry | 29 | Prunus spp.22-25 | 5 27 47 | Ulmus | 42 |
| Berries | 28-35 | Dahlia | 66 | Kniphofia | 59 | Pulmonaria | 62 | Urtica | 65 |
| Betula | 41 | Daylily | 58 | Lamprocapnos | 57 | Pussy Willow | 50 | Vaccinium spp. 2 | |
| | 41 | Dayiny Delphinium | 57 | Lamprocapnos | 64 | | 65 | | 62 65 |
| Birch | | | 57 | | 64 64 | Pycanthemum | | Verbena spp. | 62, 65 |
| Blackberry | 33 | Dicentra spp. | | Lemon Balm | | | 9-21, 27 | Vervain | 62,65 |
| Black Raspberry | 33 | Diervilla | 46 | Liatris | 60 | Quercus spp. | 42 | Viburnum | 51 |
| Blazing Star | 60 | Dogwood | 45 | Lilac | 50 | Quince | 21 | Vines | 34-35 |
| Bleeding Heart | 57 | Echinacea spp. | 64 | Lily | 60 | Raisin, Northern | | Violet | 65 |
| Blueberry | 28-29 | Echinops | 57 | Linden | 42 | Ranunculus | 66 | Vitis | 33-34 |
| Blue Flag Iris | 59 | Elderberry | 30 | Lindera | 46 | Raspberry | 32-33 | Wild Bergamot | 64 |
| Bluestar | 56 | Elm | 42 | Lingonberry | 52 | Red Hot Poker | 59 | Willow | 42, 50 |
| Boneset | 64 | Erica | 51 | Liriodendron | 41 | Redosier | 45 | Wintergreen | 52 |
| Bulbs | 65-66 | Eupatorium | 64 | Lonicera | 35 | Rheum | 53 | Winter Heath | 51 |
| Butterfly Weed | 56 | Eutrochium spp. | 57 | Lungwort | 62 | Rhubarb | 53 | Witch Hazel | 46 |
| Butternut | 40 | Evergreens | 43 | Maclura | 41 | Rhus | 47 | Yarrow | 55,63 |
| Buttonbush | 45 | False Indigo, Blue | 57 | Magnolia | 46 | Rootstock | 5,27 | Order Info | 36 |
| Calluna | 51 | Fern | 57 | | 4-18, 27 | Rose | 48-49 | Order Forms | 37-38 |
| Cane Fruits | 32-33 | Filbert | 40 | Marshmallow | 63 | Rubus | 32-33 | | |
| Carya spp. | 39 | Fir | 43 | Masterwort | 57 | Sage, Blue | 62 | TICDA A | |
| Castanea spp. | 40 | Flowering Onion | | Medicinal Plants | | Sage, Russian | 62 | USDA Avera | |
| Catalpa | 41 | Forsythia | 46 | Melissa | 64 | Salix spp. | 42,50 | Hardiness Minir | |
| Cataipa | 60 | Fragaria | 31 | Mentha | 64 | Salvia spp. | 62 | 1 - | erature |
| Caullill | | ETUYUTU | | | | Saivia spp. | 30 | 2 -50° to | o -40° |
| | | | 52 | Millewood | | | | | |
| Cephalanthus | 45 | Garden Roots | 53 | Milkweed | 56 | Sambucus spp. | 20 | 3 -40° to | |
| Cephalanthus Cedar | 45 43 | Garden Roots Gaultheria | 52 | Mint, Chocolate | 64 | Saskatoon | 29 | 3 -40° to | o -30° |
| Cephalanthus Cedar Cherry, Nanking | 45 43 47 | Garden Roots Gaultheria Gaylussacia | 52 29 | Mint, Chocolate Mint, Mountain | 64 65 | Saskatoon Scionwood | 29 26 | 3 -40° to 4 -30° to | o -30° o -20° |
| Cephalanthus Cedar | 45 43 | Garden Roots Gaultheria | 52 | Mint, Chocolate | 64 | Saskatoon | 29 | 3 -40° to 4 -30° to | o -30° o -20° o -10° |

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