

2021 Tree Sale - *Descriptions*

Habitat-quality Deciduous Trees:

Aronia “Black chokeberry” (*Aronia melanocarpa*)

This hardy, adaptive shrub produces showy white flowers in spring and black berries that attract birds in the fall. It is also rapidly gaining momentum as a new small fruit crop. The blueberry-sized black fruits have the highest known levels of antioxidants of any temperate fruit, five times higher than cranberry and blueberry. While edible as a fresh fruit, *Aronia* berries are much tastier when the fruits have been processed. *Aronia* has been widely grown in Eastern Europe and Russia where it is used in beverages, wine, jelly, and baked goods. *Aronia melanocarpa*, one of two *Aronia* species native to Vermont, attains a mature height of 4 to 8 feet and forms dense plants and colonies. Plants grow successfully in partial shade or full sun, but better flowering, fruiting, and fall color occur in full sun situations.

-NEW!- American Hornbeam, “Musclewood” (*Carpinus caroliniana*)

This smaller tree, usually found in the understory or forest-edge, fascinated me as a child because its smooth bark is rippled like toned muscles. Along with serviceberry, it makes a beautiful addition to the edge of a forest or stream, or it can accent the shadier side of a building. The wood is extremely hard. It is closely related to birches. Birds enjoy eating the catkins (type of seed), but perhaps most exciting is that swallowtail butterflies, luna moths, and many others use musclewood as a host.

Birch, White, “Paper” (*Betula papyrifera*)

This fast-growing (70-80') pioneer species grows in clearings and has peeling white bark. It prefers nutrient-rich, well-drained soils and full sun.

Black Walnut (*Juglans nigra*)

Walnuts have always been prized by humans. The dark brown wood of the black walnut is beautiful, durable, and relatively easy to work. And though the nut is an absolute ordeal to extract, it provided valuable food for native peoples and settlers alike. The walnuts most commonly eaten today are English walnuts; *butternuts* are the species native to Vermont, and black walnuts are native to the Midwest. It is thought they were brought north to Vermont by native peoples before European arrival. Black walnuts are still a popular delicacy, especially in the Midwest and southern U.S. The trees are also planted for their spreading canopy, which, at maturity, shades houses, yards and grazing livestock. Black walnut is favored for “silvopasture” systems in the northeast, where animals are grazed and trees are raised for timber on the same land. In the wild, these trees prefer rich, well-drained soils, and are often found near rivers or creeks. Chemicals exuded from their roots may inhibit the growth of other plants, so be sure to research what plants are compatible and which are affected. According to iTreeTools.org, black walnut is one of the trees that sequesters carbon fastest in our region.

Buttonbush (*Cephalanthus occidentalis*)

Buttonbush has one of the most unique flowers of any shrub. Its pincushion-like white flowers are an important source of nectar for butterflies, moths and bees. Towards fall the flowers develop into button-like seed heads and the leaves turn deep reds and yellows. Ducks and other waterfowl eat the seed heads. Buttonbush can tolerate shade and a variety of soils, and it thrives in wet spots and flooded areas.

Butternut (*Juglans cinerea*)

Butternut, or white walnut, is a relatively short-lived tree of rich soils and streambanks. The oily nuts are delicious for humans and wildlife, but do not store well. The wood is light, stable, and easily worked for carving and veneer, but is less prized than its close relative, black walnut. This stock is grown from seed from local butternuts with apparent resistance to Butternut Canker, but the resistance of the seedlings is not proven.

Cherry, Black (*Prunus serotina*)

The largest of the wild cherry trees, black cherry has beautifully shiny, striped bark when it is young. In maturity the bark becomes very dark and with a rough texture sometimes described memorably as burnt potato chips. The wood is highly valued for use in cabinetry and fine woodworking. From spring through summer, black cherry is host to over 200 species of butterflies and moths, second only to oaks in the diversity of caterpillars it hosts. These larvae in turn are fundamental food sources for songbirds – a nest of five chickadee chicks must be fed 6,000 to 9,000 caterpillars before they fledge! In winter, the cherries are eaten by some 70 bird species, including ruffed grouse, woodpeckers, cedar waxwings, thrushes, and grosbeaks. Bears and raccoons will climb the trees for the fruit, while foxes, chipmunks, rabbits, white-footed mice, and squirrels frequently feed on fallen fruits. Twigs and wilted leaves contain high levels of hydrocyanic acid and other toxins which are poisonous to cattle and humans. Black cherry is also fast-growing given how dense its wood is – want to sequester carbon? Feed the birds? Grow high-value timber? Plant a black cherry!

Dogwood, Red Osier (*Cornus sericea*)

This rapidly growing, spreading shrub reaches 6-10'. Showy red stems in winter. White berries and young twigs provide food for a wide variety of wildlife. It is favored for streambank stabilization because it is perfectly fine being planted into saturated soil or standing water. Like willows and the other dogwoods, it can be planted as a "live stake."

Hazelnut, American (*Corylus americana*)

These vigorous, suckering shrubs are excellent for hedges and windbreaks. They begin to produce sweet, oil-rich nuts in just 3-6 years. Because the heavy pollen does not carry far on the wind, plant at least two within 4-10 ft of each other.

Maple, Sugar (*Acer saccharum*)

Surely you know our friend the sugar maple! But besides the sweets we make from its sap (not to be underestimated) the sugar maple is important for many other reasons. By some reports, sugar maple twigs, leaves and bark make up 25-50% of the diets of both white-tailed deer and porcupines! Moose, snowshoe hares, finches, chickadees, and many more forest animals love sugar maples. Sugar maple does best on deep, fertile, well-drained soil, sometimes competing with farmland for that prime soil. Wild leeks or "ramps" and other spring ephemeral flowers love a sugar maple forest.

Oak, Red (*Quercus rubra*)

Red oak is one of New England's most common and widespread forest trees. It is the tallest and fastest-growing of the oaks, and commonly reaches 65-100 ft in height. It favors sites with deep soils. Humans use the beautiful reddish-white wood for furniture-making, flooring, veneer, and other purposes. Many wildlife make their dens in the hollows of mature trunks, and the acorns are an important food source for deer, woodpeckers, turkey, grouse, waterfowl, and even pigs!

-NEW!- Pawpaw (*Asimina triloba*)

With leaves and branches that deer avoid, and fruit that is loved by all, the pawpaw is a fascinating tree native to temperate North America. It's the only local member of a large, otherwise-tropical plant family that includes the cherimoya, custard-apple, and soursop. The flavor of pawpaw fruit is often compared to bananas, but with hints of mango, vanilla, and citrus. The fruit has the ungainly appearance of a small green potato and may occur in clusters on the tree. The fruit ripens in October, as the leaves are turning a brilliant yellow. Lightly shake the tree to dislodge any ripe fruits that have escaped the notice of local wildlife. Opossums, foxes, squirrels, raccoons, and birds are all known to enjoy pawpaw fruit. Pawpaw cultivars for larger fruit are under development, but we are selling the wild type which has variable fruit size. Pawpaw is self-incompatible, which means that for a flower to become fruit it needs pollen from a different pawpaw tree. Pawpaw can spread through its roots to create a small patch of trees, but for pollination purposes they are all the same tree, since they originated from the same roots. In Vermont we are in the northern edge of the pawpaw's hardiness zone, so it will have the best likelihood of success in the Champlain Valley or other relatively warm spots. (*Description adapted from the National Park Service.*)

Serviceberry (Juneberry, Shadblow) (*Amelanchier canadensis*)

Upright, tall shrub (18'+). Its attractive white flowers are usually the very first blooms of spring. Birds love the berries and it makes a good wetland buffer shrub.

Viburnum, Arrowwood (*Viburnum dentatum*)

Highlighted in 2018 by Vermont's "Bird Diva" Bridget Butler, all *Viburnum* species are excellent habitat for birds. The growth form is a dense shrub growing 6-10 feet tall with creamy-white flowers appearing in May to June, dark blue clusters of fruit favored by songbirds, and leaves that may turn from yellow to scarlet in the fall. It is adaptable to a variety of site conditions.

Willow, Black (*Salix nigra*)

This is the only willow native to Vermont that grows into a full, beautiful tree—though there are many shrub-willow species. Like other willows, black willow is fast-growing and readily re-sprouts if it is munched by deer or beavers. It loves to grow in wet spots. Willow trees and shrubs are some of the most powerful habitat-creators. They host 415 species of caterpillars, more than any other in VT, which in turn attracts birds to eat the caterpillars. If planted next to a stream or pond, insects and caterpillars also drop off the tree into the water to feed trout and other fish. And, being among the first trees to bloom in the spring, they are a crucial early-season source of pollen and nectar for bees and other pollinators. Birds also eat the catkins (seeds), and beaver, deer and even livestock enjoy the leaves, bark or twigs. As an ornamental it makes a beautiful fine-textured shade tree, but it sheds branches easily in storms. All willows are excellent soil-binders - their shallow, fibrous roots help prevent the soil of streambanks from being washed away. These same roots can get into drainage systems and sewers, so avoid planting near underground infrastructure. It does best in a persistent wet spot or near water and lives 40-100 years.

Cultivated fruits, nuts and flowers:

Apples (*Malus domestica*)

We offer five varieties of apples – always Cortland, Macintosh, and Liberty, and a rotation of two varieties that are more novel and harder-to-find.

Most apples require cross-pollination to set fruit, so be sure to plant multiple varieties that flower at the same time in the same vicinity. Decorative crabapples that you or a neighbor might already have can provide good pollen, and since bees are the best pollinators for apples be sure your local bee population is not impaired by pesticides.

The rootstock determines the size, shape and longevity of your tree, as well as some elements of disease resistance. We sell most of our trees on "semi-dwarf" rootstock, because these trees can begin bearing fruit just three to four years after planting and keep a shorter stature that makes pruning and harvesting easier. Semi-dwarf trees often require staking during establishment, or even permanently. Trees grown on "standard" rootstock grow into classically-sized, long-lived trees, and they tend to be more winter-hardy and disease resistant. Plant standard-sized trees 25-35 feet apart, and semi-dwarf trees 12-25 feet apart.

Empire – semi-dwarf root stock (EMLA.7)

Empire has all the qualities growers look for: easy maintenance, strong well-shaped trees, attractive apples, and heavy crops. The color is an intense maroon-red, overlying a light green background. Empire is a sweet apple with a crisp texture and bright white flesh. It was developed at Cornell University in the 1940s, and its parents are classic old North American varieties - Delicious and McIntosh. Empire accounts for about 60% of the apple exports of New York State, but nationally accounts for only about 2% of American apple production – showing how uniquely suited it is to the Northeast!

-NEW!- Golden Delicious –semi-dwarf root stock (EMLA.7)

Apple enthusiasts are increasingly re-discovering Golden Delicious, which was originally discovered as a seedling by a West Virginia farmer in the 1800s and became a widespread “supermarket apple” by the 1950s. If you didn’t like the Golden Delicious you’ve had from the store, consider that fruit picked for supermarkets is often picked when still green, and then stored for months before sale. In contrast, when allowed to ripen to a golden-green color on the tree the true flavor is revealed - exceptionally sweet and rich, almost like eating raw sugar cane. Golden Delicious is also a versatile apple and can be used both for dessert and cooking purposes. It has an attractive appearance - which can indeed be golden if left to mature on the tree. Hardy to USDA Zone 4, though prefers a warmer, sheltered location. *(Description adapted from the Orange Pippin website.)*

-NEW!- Honeycrisp – semi-dwarf root stock (EMLA.7)

Honeycrisp is a modern apple variety, developed in the 1960s by the University of Minnesota in search of more cold-hardy varieties. The fruit is medium-to-large, with a light green/yellow background largely covered with red-orange flush with strong hint of pink if grown in good sunlight. The flesh is white, perhaps not quite as bright as a McIntosh style apple, but similarly crisp and not too dense. The flavor is sweet with very little trace of acidity and little depth or complexity. It is a genuinely crisp apple but not hard, and it bruises easily. It has an amazing storage life of seven months, reaching peak flavor after it’s been *removed* from cold storage for 7-10 days. Honeycrisp tends to be a smaller, less-vigorous tree but has good resistance to apple scab. *(Description adapted from Orange Pippin and Minnesota Hardy.)*

Liberty – semi-dwarf root stock (EMLA.7)

Liberty is the most disease resistant apple ever developed, making it an ideal backyard tree. It is winter hardy throughout Vermont and ripens in early October. The fruit is a medium to large, McIntosh type fruit with 90% red blush. The flesh is crisp, juicy, and light yellow with a sprightly flavor. It is great for eating fresh, cooking and canning and stores until February. The hardy, spreading, vigorous, productive tree bears fruit annually. It tends to set a heavy fruit load, so thinning ensures good-sized apples at maturity. It is resistant to scab, fire blight, mildew and cedar-apple rust; no spraying needed.

Macintosh – semi-dwarf root stock (EMLA.7)

Considered an all-purpose apple, Macs are perfect for cooking, cider and eating fresh. They ripen in late September and have tart flavor and tender white flesh. The trees produce heavily and the apples are typically large, round and red. It does not require cross-pollination but does better with it.

Blueberries (*Vaccinium cyanococcus*)

Because blueberries yield better with cross-pollination, we sell our plants in pairs of one Bluecrop and one Collins. You may specify if you would like only one of these varieties. Blueberries prefer acidic soil with pH between 4.5 and 5.5

Bluecrop

This mid-season blueberry is the leading commercial variety grown, valued for its high yields of large, firm bright blue berries that grow in large clusters. The berry ripens in July and its flavor is superb, fresh or frozen. Bluecrop is known for its hardiness, vigor and consistent production. It self-pollinates but will yield larger crops if it is planted near another variety. The plant grows 4-6 feet tall.

Northland

Northland blueberry, a variety developed by Michigan State University, has excellent winter hardiness. It has produced a consistent crop following winter temperatures as low as -30F. The medium-size berries are very flavorful - similar to wild blueberries. The plant grows to about 4-7 feet, with attractive foliage throughout the fall.

-NEW!- Chestnut, American crosses (*Castanea dentata* X)

American chestnuts were once the dominant forest tree east of the Mississippi. In 1904 the chestnut blight arrived from China and within 20 years a combination of disease and preemptive logging caused the tree to go nearly extinct. Small and large scale breeders all over the country have been working to bring back the American chestnut. This offering is the result of crossing between American chestnuts, Chinese chestnuts, and Chinquapin retaining as much American chestnut traits as possible while incorporating the disease tolerance of the other species. Chestnuts are easy to harvest and process and are of tremendous value to wildlife. Plant chestnuts on a well-drained site with good sun. Sometimes leaves on young trees show signs of iron deficiency (yellowing between the veins) which can be corrected with sulfur. Once settled in they are rapid growers. Chestnuts need to cross pollinate, so we are selling them in bundles of three. (tree description adapted from East Hill Tree Farm, Plainfield, VT)

Elderberry, Cultivated (*Sambucus nigra*)

These are two of several newer elderberry varieties from Denmark selected for excellent fruit production. (For a variety with higher wildlife benefits and more vigorous in wilder, wetter parts of your property, choose the “habitat-quality” native elderberry instead.) These cultivated plants are vigorous, producing long shoots from soil level one growing season and bearing fruit the next. Remove shoots after bearing so they may be replaced by the next year's growth. This makes the plant easy to prune and manage as a bush. Large fruit clusters with good flavor ripen in August each year. Berries have very high anthocyanin content, a powerful antioxidant. Two varieties are required for cross pollination in a ratio of 1 pollinator : 5 fruiting.

We are selling the variety selected for fruit production as well as its favored pollinator. You may specify the ratio you want in your order, otherwise we will choose for you.

-NEW!- Grapes, Vanessa Seedless (*Vitis labrusca*)

Grapes thrive in well-drained soil and full sun. These vines need an arbor, trellis, or fence for support. Grapes are self-fertile. Vanessa grapes are hardy to around -20F. Vines produce a very high quality seedless red grape with thin skin and good eating quality and a strawberry, non-foxy flavor. Selected by Vineland Station, ON. (variety description adapted from NE Vine Supply, West Pawlett, VT)

Lilac (*Syringa vulgaris*)

Lilac is a favorite ornamental because of its brilliant and fragrant spring blooms. While the joy it brings to spring is a reason to love it, it provides little benefit for wildlife or pollinators.

Peach, Reliance (*Prunus persica*)

Reliance Peach trees are very hardy with a heavy crop production. It is great for cold climates (up to zone 4, all but the highest areas of VT's NEK) and produces a medium-large, orange-red fruit that ripens in early August. The peaches are soft and juicy with a sweet, classically peachy flavor, and they are great for canning. The tree will grow 12-20 feet tall and bears pink flowers in early spring.

Pear, Moonglow (*Pyrus communis*)

Moonglow is a high-quality, hardy European pear bearing large, sweet fruits similar to Bartlett or Comice (from which it is descended.) It is not self-fertile, but it is readily pollinated by Bartlett or Seckel pear trees. Under good pollination it should bear annually, and it is very resistant to fire blight.

Pear, Seckel (self-pollinating) (*Pyrus communis*)

Also known as “sugar pears,” Seckel pears are very small and sweet. Their skin is olive green with a dark maroon blush that sometimes covers the entire surface of the pear. The trees are tough, hardy, and require little pruning. They can be kept to 15 ft tall, but will want to grow to 25 ft or more. Seckel pears are an old variety that was originally found as a chance seedling by Mr. Seckel in the 1760s outside Philadelphia. Seckels are excellent for fresh eating, and their firm flesh also makes them good for cooking or canning. Moderate resistance to fire blight. Keeps well, often into late December.

Raspberries, Anne (*Rubus idaeus*)

Anne is a large-fruited, highly-productive fall bearer with yellow fruit. Anne's excellent size, appearance, and very sweet flavor make it an excellent choice for a yellow fall bearer.

Strawberries, Sparkle (*Fragaria x ananassa*)

Sparkle is an heirloom strawberry recommended for beginners and excellent for jam and freezing. It has been known for flavorful, high-quality, attractive fruit for over 60 years. An extremely vigorous variety, Sparkle is an excellent choice for home gardeners and pick-your-own operations in northern Vermont. Berries are small-to-medium, so for best fruit size keep the bed from overcrowding. Sparkle is resistant to Red Stele, a disease of the roots that can occur in clay-rich or waterlogged soils. This strawberry bears fruit one year after planting in the mid-to-late season, typically late June.

Evergreens:

Cedar, Northern White “Arborvitae” (*Thuja occidentalis*)

Many people choose Northern white cedar for privacy screening because of its dense growth form, year-round greenery, and responsiveness to shaping. For a low-maintenance hedge, plant trees three feet apart. It is naturally a smaller (30-50') evergreen tree of coastal bogs and swamps, where it grows in dense stands. It is extremely tolerant of shade and saturated soil, but it will grow faster in well-drained locations with full sun. Its fissured, fibrous bark, thick trunk, and broad base, make it strikingly beautiful. The wood is lightweight and rot-resistant. During harsh winters deer prefer it for both browse and shelter, and it provides important habitat for white-throated sparrows, kinglets, and a variety of warblers.

Fir, Balsam (*Abies balsamea*)

This northern native evergreen (40-60') is an excellent addition to buffer zone plantings or drier portions along the edges of wetland areas. It tolerates low-fertility, acidic sites, and does well in both dry and wet areas. It provides winter cover for birds and small mammals, and makes for a favorite Christmas tree.

Fir, Fraser (*Abies fraseri*)

The Fraser fir, which comes from the southern Appalachians, is very similar to Vermont's native Balsam fir. The branches turn slightly upward and have good form and needle-retention. The needles are dark blue-green in color and smell wonderful.

Pine, Eastern White (*Pinus strobus*)

This widespread and widely planted tree grows quickly on a variety of dry to wet soils. Virgin stands of this long-lived tree (to 450 years) once covered New England. Its soft wood is exceptionally useful for construction, and it is also sometimes used as a Christmas tree. It provides important winter habitat for songbirds such as chickadees, pine warblers, and pine grosbeaks.

Spruce, Colorado Blue (*Picea pungens*)

Native to the Rocky Mountains, Colorado Blue Spruce is a columnar or conical evergreen conifer with densely growing horizontal branches.

Spruce, White (*Picea glauca*)

White spruce is a cold climate species, one of the first to colonize after glaciers recede. The waxy coating on its needles gives it a blue-green appearance. It is the most commercially important timber species in the far north woods, used for wood fiber, house logs, and musical instruments. In backyards it is important winter shelter for birds, and in forests it provides cover for moose, martens, and lynx. And, of course, it makes a perfect Christmas tree.

Wildflower seed mixes:

Butterfly and hummingbird garden wildflower mix

These flowers offer ideal forage for pollinators in a beautiful mix of annual and perennial wildflowers. It stars cornflower (bachelor's button), rocket larkspur, bigleaf lupine, white beardtongue, and others.

Riparian buffer wildflower mix

A diverse mix of upland and wetland grasses, forbs and shrubs with extensive wildlife and pollinator value. Provides food and cover for many of our songbirds, pheasants, deer and turkey. It stars deertongue (or Tioga), indiagrass, big bluestem, and blackeyed susan, among others.

Wetland wildflower mix

The diverse species provide pollinator habitat and erosion control in wet meadows. It stars fox sedge, blue vervain, swamp milkweed, sensitive fern, joe-pye weed, and others.