

Native Fruit and Nut Trees and Shrubs of the Virginia Mountains and Piedmont

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Native fruit and nut trees can be grown to produce food for people and/or wildlife while protecting soil, water and air quality. Because they are multifunctional, native fruit and nut trees and shrubs are prime candidates for agroforestry plantings and home landscaping. Agroforestry is the intensive and intentional integration of trees and/or shrubs with crops and/or livestock and includes practices such as riparian buffers, windbreaks, and fencerows (for additional information on agroforestry please visit <http://nac.unl.edu/>). Native fruit and nut trees and shrubs also offer the added benefit of greater pest and disease resistance when compared to non-native commercial species.

To demonstrate the use of native fruit and nut species in agroforestry practices, select trees and shrubs were integrated into riparian buffer and fencerow agroforestry plantings at Virginia Tech’s Catawba Sustainability Center in Catawba, VA (to learn more about the center and demonstrations please visit <http://www.vtrc.vt.edu/catawba/>).

This factsheet describes some native fruits and nuts of the mountains and piedmont that can be used in edible landscapes. A chart is included that highlights information about select species. Improved varieties or cultivars have been developed over the years to enhance the quality and quantity of fruit in many of these species. For this reason, looking into cultivars or named varieties could be beneficial.

Native Fruit and Nut Tree Species List



American plum (*Prunus americana*) is a small tree that often forms thickets. It produces a small plum that varies in shades of orange, red, and purple. The fruit is tart and fantastic for jams, jellies, syrups, and combined with sweet cherries or apples in pies.

Black walnut (*Juglans nigra*) is a large tree that has thick chocolate brown bark and leaves that provide lovely shade. It produces a nut that looks very similar to the English walnut, but has a strong flavor quite different from its English cousin. The nut is often used in cookies, cakes, brownies, and ice cream. The tree emits a compound called juglone, which can limit the growth of certain plants growing under

the canopy or near the tree.

Serviceberry (*Amelanchier spp.*) ranges from a medium-sized tree to a small shrub depending on the species. It has smooth dark bark with delicate leaves and produces small white flowers in the spring that turn into a fruit that looks very similar to blueberries. The fruit tastes similar to cherry with a hint of almond and can be eaten fresh or used in pies, jams, and scones.

American persimmon (*Diospyros virginiana*) is a medium-sized tree that has handsome deep green foliage and dark blocky bark. It produces orange colored fruit about the size of a cherry tomato that ripen in late autumn. The fruit can be eaten fresh or used in breads, puddings, cakes, and cookies. If eaten before it is fully ripe the fruit is *very* bitter. A general rule of thumb is that the fruit is ripe after the first frost of the season, but ripening time varies by cultivar.



Red mulberry (*Morus rubra*) is a medium-sized tree that has leaves with a heart shaped base that typically feel like sand paper on the top. It produces a sweet fruit that looks similar to a blackberry. They are delicious eaten fresh or in jams, smoothies, scones, breads, and pies.

Highbush blueberry (*Vaccinium spp.*) is a shrub that produces very tasty dark blue berries. This is a well-known native fruiting shrub with berries frequently used for jams, pies, smoothies, scones, and fresh eating.

Black raspberry (*Rubus occidentalis*) is a bramble with purple colored canes and fruit that looks similar to a blackberry. The berries can be eaten fresh and used in tarts, smoothies, jams, and jellies.

Allegheny blackberry (*Rubus allegeinensis*) is a bramble that produces a flavorful fruit often eaten fresh and used in pies, jellies, jams, cobblers, smoothies and ice cream.



American hazelnut (*Corylus americana*) is a shrub or small tree that produces a nut surrounded in a signature leafy-fringed covering. The nut is very similar to the commercially sold filbert (hazelnut) and can be used in any general hazelnut recipe. They are especially good for baking and granola.

Elderberry (*Sambucus canadensis*) is a multi-stemmed shrub that produces large clumps of beautiful tiny edible flowers often used to make wine. These flowers turn into large clumps of small dark berries that can be used to make jellies, syrups, and wine. Elderberry syrup is often used as a medicinal supplement during flu and cold season. However, the stems, leaves and bark are considered toxic. Some people can get an upset stomach from eating the raw fruit. Cooking can neutralize this effect.

Pawpaw (*Asimina triloba*) is a native small tree that produces a beautiful dark burgundy flower that turns into a 3-5 inch greenish yellow fruit that looks similar to a mango, has the consistency of a banana and tastes like vanilla custard with hints of pineapple. The fruit is especially sweet and can be eaten fresh or used in puddings, pies, and breads.

Shagbark hickory (*Carya ovata*) is a medium to large tree that is characterized by its grey shaggy bark. While the nut is sometimes difficult to open, it is sweet tasting and can be used in any recipe as an alternative to walnuts or pecans.

Design Considerations

Common Name	Species Name	Form	General Spacing	Crown Width	Height	Soils
American hazelnut	<i>Corylus Americana</i>	Shrub	10'	10-12'	15-18'	Well drained soil
American plum	<i>Prunus Americana</i>	Small tree or suckering shrub	15'	15-25'	15-25'	Well adapted to poor soils
blackberry	<i>Rubus allegheniensis</i>	Bramble	5'	4-8'	3-6'	Well drained and composed
black raspberry	<i>Rubus occidentalis</i>	Bramble	5'	4-8'	3-6'	Moist or mesic, rich soils
black walnut	<i>Juglans nigra</i>	Large tree	50'	50-75'	75-100'	Prefers deep, rich, moist soil; it tolerates drier soils, but grows slower
blueberry	<i>Vaccinium corymbosum</i>	Shrub	10'	8-12'	6-12'	Moist, acid, organic, well-drained soil (pH 4.5-5.5)
elderberry	<i>Sambucus canadensis</i>	Shrub	10'	6-10'	8-12'	Prefers moist soils, but can handle drier soils
persimmon	<i>Diospyros virginiana</i>	Medium tree	35'	35-50'	40-60'	Prefers moist, well-drained, sandy soils, but will do well on low fertility dry soils
pawpaw	<i>Asimina triloba</i>	Small tree or suckering shrub	20'	20-3'5	15-20'	Prefers moist, fertile, deep, slight acidic soils
red mulberry	<i>Morus rubra</i>	Medium tree	40'	40-50'	40-70'	Prefers rich, moist soils
serviceberry	<i>Amelanchier spp.</i>	Medium tree or pruned to shrub	30'	30-40'	30-40'	Prefers moist, well drained, slightly acidic soils but will grow in drier conditions
shagbark hickory	<i>Carya ovata</i>	Medium tree	35'	35-50'	60-80'	Prefers rich, well drained soils, but is adaptable to a wide range of soil

Acknowledgements

The authors would like to thank the National Agroforestry Center for its support of the agroforestry demonstration plantings at the Catawba Sustainability Center that included native fruit and nut trees.

References and Helpful Resources

- Cullina, W. 2002. *Native Trees, Shrubs and Vines: A Guide to Using, Growing, and Propagating North American Woody Plants*. New York, New York: Houghton Mifflin Company.
- Davies, K.M. 1994. *Some ecological aspects of northeastern American Indian agroforestry practices*. Northern Nut Growers Association 85:25-37.
- Dirr, M. 1998. *Manual of Woody Landscape Plants*. Champaign, IL: Stipes Publishing.
- Gold, M., and H. Garrett. 2009. Agroforestry nomenclature, concepts, and practices. Pages 1-23. In: Garrett, H. (ed). *North American agroforestry: An integrated science and practice*. American Society of Agronomy: Madison.
- Hightshoe, G. 1978. *Native Trees for Urban and Rural America*. Ames, Iowa: Iowa State University Research Foundation.
- Jacke, D. and E. Toensmeir. 2005. *Edible Forest Gardens*. White River Junction, Vermont: Chelsea Green Publishing Company
- Reich, L. 2009. *Landscaping with Fruit*. North Adams, MA: Storey Publishing.
- [Untitled photo of and American plum fruit], Retrieved December 19, 2011 from: http://www.survivalworld.com/plants/Plants%20Photo%20Pages/north-american-plant-photo-pages/american_plum_photo_page.html
- Clapp-Hansen, J. & Siegel, O. (Students UGA). 2005. [Untitled photo of black walnut fruit], Retrieved December 19, 2011 from: http://www.bio.brandeis.edu/fieldbio/Clapp_Hansen_Siegel/Pages/Black_Walnut.html
- Trozzo, K. (Student VT). 2010. [Untitled photo of serviceberry fruit].
- [Untitled photo of American persimmon fruit], Retrieved December 19, 2011 from: http://www.missouriplants.com/Whitealt/Diospyros_virginiana_fruit.jpg
- Lewallen, C. 1997-2001. American hazelnut fruit. Retrieved December 19, 2011 from: <http://www.biosurvey.ou.edu/okwild/amerhaz.html>
- Young, C. [Untitled photo of American elderberry], Retrieved December 19, 2011 from: http://www.dispatch.com/content/stories/home_and_garden/2011/08/21/plant21-g28dpm2i-1.html
- Strange sights and odors in the paw paw patch [Photograph]. Retrieved December 19, 2011 from: <http://www.veggiegardeningtips.com/stalking-the-exotic-and-wild-paw-paw-tree/>
- Hilton Pond Center. [Untitled photo of hickory nuts], Retrieved December 19, 2011 from: <http://www.hiltonpond.org/thisweek030908.html>
- Austin, S. 2002-2012. *Morus rubra* [Photograph], Retrieved December 19, 2011 from: <http://src.sfasu.edu/~jvk/PineywoodsPlants/Eudicotyledons/Moraceae/Moraceae.html>
- [Untitled photo of blueberries], Retrieved December 19, 2011 from: <http://www.dyg.ie/forum/blueberries-grow-your-own>
- Sejkora, R. (Photographer). *Rubus occidentalis* 'cumberland' [Photograph], Retrieved December 19, 2011 from: <http://www.biolib.cz/en/image/id90170/>
- [Untitled photo of Allegheny blackberry fruit]. Retrieved December 19, 2011 from: <http://rowancounty4-h.blogspot.com/2011/02/blackberry-plants-available-during.html>