QUESTION: I am trying to grow a “food forest” in a relatively small space, and I am looking for less common fruiting shrubs or small trees that will thrive in the Pacific Northwest and blend well with ornamental plants. I started with several goji berry shrubs, expecting them to grow upright, but they are sprawling wildly. Should I train them? Will they become invasive? Which other plants should I add?

ANSWER: The term food forest is associated with the permaculture principles of forest gardening. To quote Dave Jacke, author of “Edible Forest Gardens” (2005), a forest garden is “a perennial polyculture of multi-purpose plants.” To embrace the concept fully, you would implement a layered design, with canopy trees, lower trees, a shrub layer, an herbaceous layer, the “rhizosphere” (root crops), soil surface plants (cover crop), and a vertical layer (climbing plants). These plants and their associated organisms would form a “beneficial guild”—working together to ensure garden health and productivity. In a smaller garden, you may not have room to include all the different layers, at least to their fullest extent.

Goji May Not be A Go-To
Lycium barbarum (goji, also called wolfberry and boxthorn) may not be an ideal plant to integrate into a food forest, due to its aggressive nature. Native to Asia, this member of the Solanaceae, or nightshade family, has been widely planted around the globe and has become invasive in many regions. (For example, several counties in California list the plant on their invasive species list.)
A 2008 article by Vern Nelson in “The Oregonian” mentions this tendency and suggests containing the plant in a four-by-five-foot-square support structure. Be aware that “wolfberries take root wherever they touch the ground.”

Susanna Lyle’s book “Fruit & Nuts” (2006) says these rangy, thorny, vining, deciduous shrubs are short-lived, peaking in berry production at about five years of age and typically living for eight years or so. She advises planting them near a fence or trellis so that they can be trained up it; some sprawling is to be expected. She also says “the extensive root system can help stabilize banks,” which you could interpret to mean that removing unwanted plants might be hard work!

In “Extraordinary Ornamental Edibles” (2018), Mike Lascelle—a British Columbia gardening author—recommends growing goji berry in a container, or training it as a weeping standard. Suckering roots are only one way the plant spreads; seeds are another. Goji was the “Plant of the Month” in the “Whatcom County Master Gardeners Weeder’s Digest” in August 2006. Author Cheryll Greenwood Kinsley notes that when the plant was first introduced to Europe, people weren’t enamored of the fruit, but birds were, and now “the shrub has naturalized in Britain and is listed as a noxious weed on two continents and in at least some parts of several states, including Montana and Wyoming.” She recommends keeping the birds away from it to discourage its spread.

Selecting Plants for a Food Forest
With careful plant selection, there is no reason you cannot have a healthy, small food forest of your own. To narrow down choices, you may want to ask yourself, “Who will harvest and consume the fruit?” Are you growing edibles solely for human consumption, or do you wish to attract and feed wildlife as well? If you plan to be the primary consumer, you’ll likely need to protect your plants from browsing by other living creatures. Also consider ease of harvesting and palatability. Why plant anything with fierce thorns, or with fruit that is edible but not delectable, when there are so many desirable plants from which to choose? In a small garden, avoid the more aggressive growers, or at least limit them to a specific area of the garden: An edible hedgerow along one side of the garden might be a possibility.

One way to narrow your focus is to select plants that not only yield delicious fruits but also have intrinsic aesthetic appeal. Some woody edible plants are beautiful to grow (and worth including, in my opinion), even though the fruit might not ever ripen for you: I am thinking of pineapple guava (Acca sellowiana), olive (Olea europaea), and pomegranate (Punica granatum). Lee Reich’s “Landscaping with Fruit” (2009) will prove useful for plant selection because the author rates each plant on a “luscious landscape index,” an admittedly unscientific designation that encapsulates the taste of the fruit, degree of expertise needed to grow it, and the plant’s sheer beauty.

Following are some suggestions to get you started. If you would like to explore an active permaculture forest in Seattle for other ideas, pay a visit to the Beacon Food Forest, adjacent to Jefferson Park on 15th Avenue South and South Dakota Street (https://beaconfoodforest.org).

Suggested Plant List

**Aronia melanocarpa** (black chokeberry): This vigorous, suckering deciduous shrub from eastern North America grows up to six feet high and wide. Its black autumn berries are sweetest when stored for a few weeks after picking. Lascelle notes a few compact varieties, including...
'Low Scape Mound,' 'Low Scape Hedger,' and 'Iroquois Beauty,' also known as ‘Morton’.

*Asimina triloba* (pawpaw, custard apple): Native to the Southeast, pawpaw is a slow-growing, ornamental small tree (10 to 25 feet tall) related to cherimoya and soursop (*Annona* species). Some describe the brownish-purple flowers as fragrant; others say their odor resembles rancid meat. The fruits are large, kidney bean–shaped berries that have a custardy texture when fully ripe and an intense tropical flavor that melds mango, banana and pineapple. Pawpaw is the largest edible fruit from North America. Reich gives it a top rating. A few varieties are self–fertile, including ‘Rebecca’s Gold’ and ‘Sunflower’, and for a small garden it makes sense to seek out these.

*Berberis darwinii* (Darwin’s barberry): With its stunning yellow flowers, this upright, evergreen shrub makes a big splash each spring in the Chile Entry Garden at the Arboretum. According to Mike Lascelle, the round, bluish, acidic fruits that develop from its flowers in summer have an essence of fig. Like many *Berberis*, this species is self–fertile, so you only need one plant to get fruit. Note, the plant is thorny, and there are rumors of it escaping cultivation in Oregon and California.

*Cornus mas*: The grove of Cornelian cherry trees at the Center for Urban Horticulture attracts immigrants from Azerbaijan (where the plant is native), who harvest the sour, astringent fruit to make a cordial, which is said to cure all ills. The red fruit has been part of the human diet since ancient times and is mentioned by Dioscorides and Galen. A plus, I think, are the yellow flowers in spring, which have a friendly essence of wet–dog–at–the–beach. (Top rating in Reich.)

*Diospyros kaki* (Japanese persimmon): This deciduous, small tree from East Asia grows up to 20 or 30 feet, but compact varieties are available. I have a dwarf cultivar ‘Izu’ in my small garden. Patience is required with persimmon: It took 18 years for my tree to produce fruit! However, since then, it has had a bumper crop each year. The squat fruits of ‘Izu’ and ‘Fuyu’ are non–astringent, unlike those of the acorn–shaped ‘Hachiya’, and are best eaten when they are fully orange, but before they get soft. Persimmon also rewards the gardener with graceful branches and luscious foliage that turns a rich golden to red color in fall.

*Elaeagnus multiflora* (also called goumi) and *E. umbellata* (autumn olive/Japanese silverberry): Both of these thorny species from Asia bear fragrant flowers and small red fruits. Lee Reich commends the plants for their beautiful appearance but does not think the rhubarb–like flavor of the fruit is appealing enough to make them a must–have ornamental edible. All *Elaeagnus* plants have distinctive, tiny, silvery–white bumps (scales) on their leaves, branches, and even their fruit. They have a tendency to sucker. Avoid *Elaeagnus angustifolia*, which is on the Washington State Noxious Weed list.

*Fuchsia* species: Flowers and fruits of plants in the genus *Fuchsia* (native to South America and New Zealand) are edible. According to Lascelle, the slightly bitter flowers are best used as a colorful garnish, and *Fuchsia boliviana* fruit is tastiest,
reminiscent of red table grapes. Harvest fruit from midsummer to fall.

_Hippophae rhamnoides_ (sea buckthorn): Washington State University fruit research describes this extremely thorny shrub from Europe and Asia as tolerant of poor soils and pest- and disease-free. It also sets “many small orange fruits with a citrus-like flavor.” Lee Reich cautions that the fruit is nearly inedible when raw, as it is supremely tart. The juice, if sweetened, is delicious, with a flavor like orange and passionfruit. Because of the thorns, the fruit is difficult to harvest. However, if you like the look of the narrow, silvery leaves contrasting with the bright-orange fruit, it might be sufficiently appealing.

*Mespilus germanica* (medlar): If you want to mimic a medieval garden, add this small and attractive self-fertile tree, which bears a curious-looking brown fruit with a five-pointed calyx. (The French call it _cul de chien_ for its resemblance to the rear end of a dog.) When ripe, the fruit is still too hard for human consumption. There are two ways to “blet”—or soften—your medlars. One is to pick them when they are nearly rotting on the tree (not wise if you have avid squirrels lurking about). The other is to pick them after a few frosts have hit, and then store them in a cool, dry spot for about three weeks, until they soften and are ready to reveal their spicy apple butter flavor. (Top rating in Reich.)

_Poncirus trifoliata_ (trifoliate or hardy orange): I know several gardens in the Seattle area where this prodigiously thorny Chinese plant is growing successfully. It does produce bumpy-skinned citrus fruit, which is not tasty when eaten fresh. However, if stored for several weeks, the fruit can purportedly be juiced or turned into marmalade, or small slices can be used to flavor a gin and tonic. If wiry, zigzaggy branches make your heart sing, this is an ideal choice.

_Prunus tomentosa_ (Nanking cherry): This deciduous shrub from East Asia receives a top rating in Reich’s book, but you need two specimens in order to cross-pollinate. The tart-to-sweet red fruits ripen in early summer and are best used in pies, jams and jellies. The plant is a marginal choice for our region because it does best in areas where fall and winter are not so wet.

_Punica granatum_ (pomegranate): The most robust specimens I have seen in Seattle are in the UW Medicinal Herb Garden, where the trees often develop small- to medium-sized fruit that looks harvest-worthy. Most people, however, simply grow this western Asian tree for the vibrant, orange-red flowers and only dream of fruit.

× _Sorbopyrus auricularis_ (shipova): This is an intergeneric hybrid between European pear (*Pyrus communis*) and common whitebeam (*Sorbus aria*), an elegant mountain ash. Reich gives it a top rating for landscape appeal, ease of maintenance, longevity, and taste. He does not mention that it takes about seven years to produce fruit! The hybrid came about (it’s unclear how) in the early 1600s in the Bollwiller castle garden in Alsace and is propagated by grafting rather than
by seeds. The fruit is turbinate, or shaped like a spinning top, and about the size of a large apricot. It ripens to a rich yellow with a blush of reddish orange where the sun reaches it. The yellow flesh is similar in flavor to a pear. There is at least one dwarf variety, ‘Baby Shipova,’ that is six to eight feet at maturity.

*Ugni molinae* (Chilean guava or strawberry myrtle): An evergreen shrub from the Chile, *Ugni molinae* reaches about six feet in height and half as wide. Its leaves are similar to those of myrtle, and its fragrant cup-shaped flowers are white with a hint of pink. The genus name is derived from the indigenous Mapuche name, *uñi*. The shrub was introduced to England in 1844 and soon became a favorite of Queen Victoria, who enjoyed the fruit, which tastes like a cross between strawberries and guavas. If your garden’s microclimate runs cold in winter, grow the plant in a sheltered spot, as *Ugni* is hardy to USDA Zone 8.

*Ziziphus jujuba* (jujube, red date, Indian date): This Asian tree receives a top rating in Reich, but it needs summer heat to be productive. Lascelle says it is hardly in coastal British Columbia, but the fruit does not ripen until October. Unripe fruits will not ripen off the tree, so wait until they turn reddish brown to pick them. In their native range, jujube fruits are allowed to dry on the tree, but that would not work in our climate. The fresh fruit tastes like apples. In the Pacific Northwest, *Ziziphus* will probably reach between eight to 12 feet tall by six to eight feet wide. It grows larger in warmer climates. Most cultivars are only partly self-fertile. Bearing lax, somewhat thorny branches and yellow-green flowers, the tree is described by Lascelle as “attractive enough.”

**Bibliography**


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