



University of Nevada
Cooperative Extension

Getting Started With Backyard Fruit Trees in Northern Nevada

Fact Sheet -14-14

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Small-space orchards

A backyard orchard does not require a lot of space. Scientists and backyard orchardists are experimenting with tree rootstocks and specialized pruning practices to create small fruit trees with high yields. Selection of a dwarfing rootstock and proper pruning will allow you to control the size of your trees. Ultra-dwarf trees are great patio choices as they are 3 to 6 feet tall and wide at maturity. Dwarf fruit trees will grow to 8 to 10 feet tall and wide, depending on the environment and pruning techniques. Semi-dwarf trees will reach 12 to 15 feet tall and wide. Once semi-dwarf fruit trees are bearing fruit, a 6-foot-tall person can harvest most of the fruit using a small step ladder. Standard trees are the largest, generally growing from 18 to 30 feet tall. They are rarely planted anymore because much of the fruit cannot be reached easily.

To give your trees a great start, make sure you select a good location. Fruit trees require full sun. Morning sun is especially important as it will dry the dew off the leaves, minimizing the chance of disease. If your area is susceptible to late spring frosts, consider planting trees with a northeastern exposure. This location could delay the thaw and warming of your trees, so you don't lose valuable open buds or blossoms to the cold.

Neutral soils (pH 6 to 7) and good water drainage are also important. The number one reason people lose cherry trees, for example, is that the roots become water-logged when planted in irrigated lawns or in low-lying areas that hold too much moisture. In most cases, fruit trees do not need supplemental fertilizers. Soil amended with quality compost or aged manure will feed the tree slowly and naturally. Drip irrigation is ideal for fruit trees as it minimizes water evaporation and weed growth. Consider also spraying the trees' foliage with water once a month to suppress mites, aphids and other insect pests.

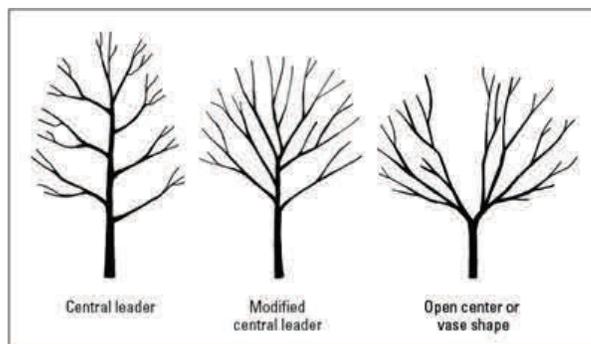
Fruit tree pruning

There is nothing better than picking fresh fruit from fruit trees you have cared for in your own backyard, and pruning is one of the most important elements of fruit tree care. Maintenance pruning done incorrectly can ruin the tree's structure and ability to produce fruit for several years. The focus of pruning should be to open the tree canopy to light and to strengthen the fruiting branches.

Any good orchardist or arborist will take into account the kind, cultivar and age of the fruit trees before ever breaking out the loppers or a pruning saw. Another important consideration is the existing framework of the tree: what you would like versus what is good for the tree and what is desirable or necessary for fruit production.

Most orchardists prune during the dormant season, in the favorable weather conditions of late January and February, before the trees begin actively growing. During this time, undesirable branches and dead wood can be more easily identified and removed, although dead or broken branches can be removed any time of the year.

Pruning for structural strength is especially



important on fruit trees, and training for proper form should begin at a young age. Common pruning forms for fruit trees are:

“Espalier” are trained to grow flat against a fence or wall. This is typically done with apples and pears, and it adds beautiful aesthetics and function to the landscape. This style also makes it possible to have a good size orchard in a small space.

“Open-center” pruning is most commonly used on stone fruits, such as apricot, nectarine, peach and plum, and sometimes for cherry, apple and pear. This form of pruning creates strong lateral scaffold branches and a well-balanced framework with fruit within picking range.

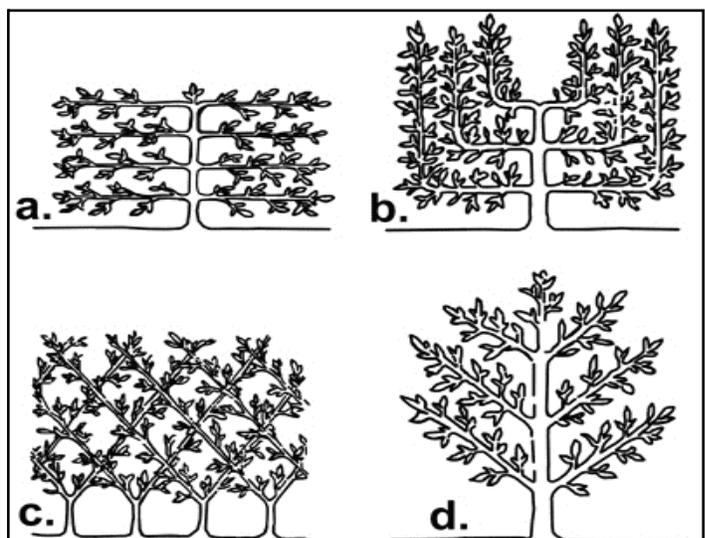
“Central-leader” training is common for apples and pears and maintains a single dominant, upright trunk, called the leader.

“Modified central-leader” is a style that is most often used in commercial orchards, but can be used in home orchards as well. The trees are grown with the central-leader form to a predetermined height, and then the central leader is removed leaving the tree to develop more of an open-center concept.

Which style is best for you depends on the type of tree, the amount of room available for growth and the species. For a mature fruit tree, it is important to not remove more than 15 to 20 percent of the tree’s live wood (dead, dried-up wood does not count). It is also critical to be familiar with the age of wood on which your tree will produce fruit. The fruit of the most common trees in our area, apple and pear, grow on short spurs produced on old wood, considered to be two years or older. Plums are similar in their fruiting habit. A strong branch structure is important to support the weight of the fruit. Peaches and nectarines will produce fruit on one-year-old shoots (last year’s wood), called new wood. The goal for pruning peaches and nectarines is to remove inward-growing branches and to retain the strongest of the outward-growing fruiting branches.



Belgian Fence espalier training of apple trees.



Some common formal espalier patterns are Tiered or Horizontal T (a), Palmette Verrier (b), Belgian Fence (c), and Oblique Palmette (d). University of Georgia artwork



Open-center pruning of an apple tree.

Selecting the right tree

Edible landscapes have become popular, providing both beauty in the landscape and food for your family. Fruit trees not only provide wonderful sweet fruit, but they bloom in an array of colors in the spring and have spectacular fall color. While this may make you want to go out and purchase the first fruit tree you see, making the right choice for your yard will require some research and site consideration.

Spring is the time for best selection of fruit trees and the widest number of available varieties. Most catalogs carry bareroot trees, meaning they are delivered with no soil around the rootball. The advantage of bareroot is the increased number of varieties available. Gardeners can buy bareroot trees that are two years old and 3 to 5 feet tall. Bareroot trees have a high survival rate after transplanting, and they establish quickly in our native soils. They can be easily trained for standard form or for espalier in smaller spaces.

Containerized fruit trees are also popular and can be planted most any time of year when the soil is not frozen.

Fruit trees require a given number of hours with temperatures between 45 degrees Fahrenheit and 32 degrees Fahrenheit during their dormant period if they are to bloom normally and produce fruit. This is called a "chill requirement," and the actual number of chill hours required varies among fruit tree species and varieties. Apricots and peaches typically have a low chill requirement of less than 400 to 500 hours, whereas apples and pears have a higher chill requirement of 700 to 800 hours.

While it may seem like a good idea to plant fruit trees with low chill requirements, consider the consequences. As our days become longer and our temperatures slowly begin to warm in late March to

early May, you may start seeing apricot and some peach trees in our area bloom because these species have a relatively low chilling requirement. But these beautiful blooms may fail to produce fruit because the delicate blooms will not survive the freezing temperatures we often experience later in spring, sometimes into early June.

Fruit trees flowering too early in our area is not uncommon, because our temperatures can be so variable and unpredictable in spring. For example, in Washoe Valley, we typically experience a "false spring," during which temperatures become unseasonably warm for a week or more in early spring, and then dip back down to more seasonal levels. Unfortunately, low-chill-hour trees such as

apricot, plum and peach may bloom during this warm period because they have accumulated their required chill hours. A tree that has accumulated its required chill hours, and then experiences some warm weather, will open its flower buds, making the flowers susceptible to chilling injury once cold temperatures return to the area.

If you want dependable fruit, plant an apple or pear tree. That's because apples

and pears have a higher chill requirement and will not bloom in our area until temperatures are safely out of the danger zone. Now that new varieties of many fruits are being cultivated, with chill requirements of between 800 and 1000 hours, opportunities for planting fruit trees in northern Nevada are expanding. If you want apricot, try Gold Cot, a semi-dwarf variety with an 800 chill-hour requirement, or try your luck with Tilton, which requires 700 chill hours. If you like nectarine, consider Mericrest or Harko, both of which require 800 hours of chilling temperatures.

The table on the next page includes some good varieties of fruit trees for northern Nevada.



Dwarf Reliance Peach is a small hardy peach that grows to only 8 feet to 10 feet tall and wide.

Some Fruit Tree Varieties for Northern Nevada

Fruit	Variety	Chill Hours Required
Apple	Wolf River	< 800
	Honeycrisp	800
	Jonathan	800
	Liberty	800
Pear	D'Anjou	800
	Bosc	700-800
	Bartlett	800
	Seckel	300-800
Cherry (Sweet)	Utah Giant	800
	Craig's Crimson	800
	Black Tartarian	700
Cherry (Tart)	Montmorency	700-1000
Plum	Italian	800
	Blue Damson	800
	Green Gage	700
Peach	Reliance	1000
	Redhaven	800
	JH Hale	800
	O'Henry	750
Apricot	Harcot	700
	Chinese	700

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