LEAF Network

Linking Edible Arizona Forests

Growing Edible Arizona Forests, An Illustrated Guide

Excerpt from *leafnetworkaz.org*

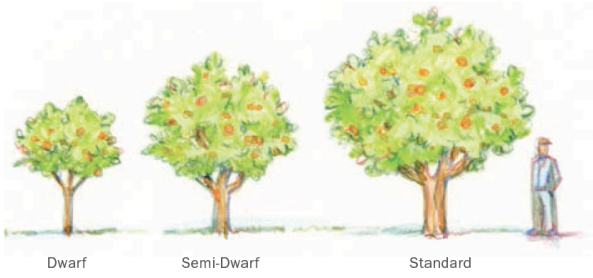
Edible Tree Guide

LEARN Values, Characteristics of Edible Trees

- Average Tree Sizes

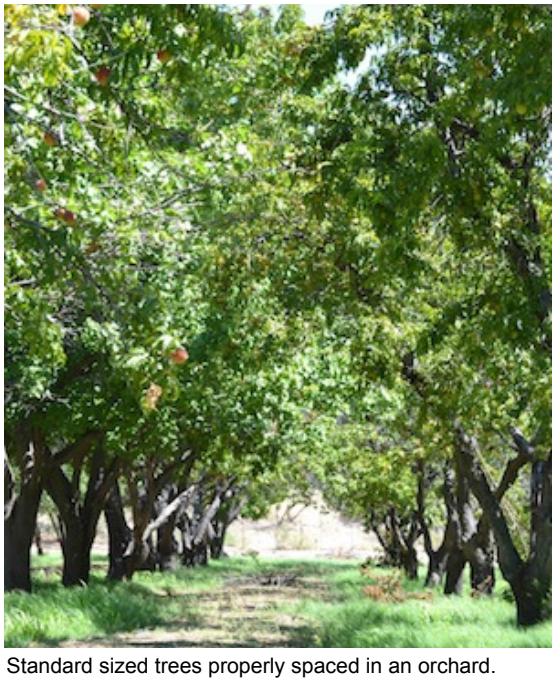
Average Tree Sizes

Tree size varies with a tree's age, planting environment, water supply and pruning. Knowing a tree's full potential size will help you choose the spacing and number of trees for your site. When planning your site, consider the three-dimensional layout, and leave plenty of space for mature trees, walkways and understory plants.



Range of tree options based on size.

When selecting a fruit tree, you may have three options for size: dwarf trees grow about 8 to 10 feet tall, semi-dwarf trees reach 12 to 15 feet, and standard size trees grow to 15 feet or more. In general, you can assume that the mature canopy diameter (the width of the tree) will be the same as the height. However, this is not always the case—pears naturally have a tall, narrow form, while plums and peaches have a spreading form. Although trees can be trained to fit smaller vertical and horizontal spaces through careful pruning and attention, it is best to plan for a full-sized tree. See the table of **Average Canopy Diameter and Height for Standard-Sized Trees** below for information on selected trees. Additional information on tree sizes is available at the **Arizona Edible Tree Directory** at *leafnetworkaz.org.*



Standard sized trees properly spaced in an orchard.

Dwarf and Semi-dwarf Trees

Dwarf and semi-dwarf trees are available for selected fruit tree varieties—typically apple, pear, cherry and some citrus. Trees such as plum, peach and almond have smaller mature sizes, and are not usually available as dwarf trees. Dwarf and semi-dwarf trees are created by grafting the bud or shoot of a known fruit variety onto a compatible rootstock of the same species that limits the potential size of the tree. Grafting is a standard practice in fruit and nut tree propagation, and most nurseries will carry a selection of dwarf and semi-dwarf trees. Dwarf and semi-dwarf trees are smaller, but the fruit size is the same as for a standard tree. The quantity of fruit will be less than a standard tree produces.

In general, dwarf and semi-dwarf trees:

- Require less water
- Produce at a younger age
- Have a shorter lifespan
- Are easier to prune, treat for diseases, cover for frost and harvest
- Have small root systems, so need more fertilization
- May need to be staked or supported
- Are more vulnerable to drought and wind

Pruning Standard-sized trees to Limit Size

Standard-sized tree varieties can be pruned and shaped to keep them smaller than their potential mature size, including most edible trees, which can be pruned or "trained" to fit smaller spaces. Some trees respond very well to pruning such as bay laurel, and can be made into tree sculptures and hedges. Some varieties of pear, apple, fig, peach, pomegranate and other fruit trees can be trained to grow along two dimensions, such as along a wall or border, a technique called "espalier." Pruning of the primary shoot when a fruit or nut tree is young will encourage lower side branches to develop and limit the height of the tree. See **CARE – Thinning and Pruning** at *leafnetworkaz.org* for more information. Avoid making large pruning cuts on mature trees as they may have difficulty healing and be vulnerable to bacteria and diseases. Prune in the dormant months in winter and early spring.

AVERAGE CANOPY DIAMETER AND HEIGHT FOR SELECTED STANDARD-SIZED TREES, IN FEET

Edible Tree	Canopy Diameter	Tree Height	Edible Tree	Canopy Diameter	Tree Height
Almond	10-15	20-30	Hackberry, netleaf	35	35
Apple	15-20	15-30	Hawthorn	10-30	15-50
Apricot	20	25-35	Ironwood	15-25	15-45
Bay laurel	10-30	10-60	Jujube	10-15	20-40
Carob	25	25	Juniper	20-40	<50
Cherry, sweet	15-30	30-60	Loquat	15-20	20-30
Cherry, sour	15-30	15	Medlar	10-20	10-20
Cherry, capulin	20-30	30+	Mesquite	30	30
Cherry, wild black	35-50	60-100	Mulberry	20-30	30
Citrus: calamondin	20	20-30	Mulberry, wild	20-30	20
Citrus: citron	20	20-30	Oak	40+	60+
Citrus: grapefruit	15	20	Olive	30	30
Citrus: kumquat	5-10	10-15	Palo verde	25-30	20-30
Citrus: lemon	20	20-30	Peach & nectarine	15-25	15-25
Citrus: lime, makrut, kaffir	5-10	5-10	Pear, Asian pear	15-25	30-60
Citrus: lime, Mexican	15	15-20	Pecan	35-75	60-120
Citrus: lime, sweet	15	15-20	Persimmon	15-25	40-50
Citrus: limequat	10	10	Pinyon pine	20-40	30-60
Citrus: mandarin, tangerine, satsuma	20	20-30	Pistachio	15	20
Citrus: orange, sour	20	20-30	Plum	15-25	15-25
Citrus: orange, sweet	20	20-30	Plum, wild	15-20	15-20
Citrus: pummelo	20	20-30	Pomegranate	10	15
Desert fan palm	15	30-60	Quince	25	15-20
Date palm	25-30	40-90	Saguaro	15	45+
Elderberry	10	10-30	Sapote, white	20-30	20-60
Fig	15-50	10-30	Walnut, English	30-45	30-60
Guava	10-30	10-30	Walnut: wild	30	30-50