



# PORTLAND FRUIT TREE PROJECT

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## A Beginner's Guide to Ripening, Harvesting, & Tree Care for Fruiting Vines, Walnuts, and Other Common Tree Fruit

*Figs, Grapes, Kiwis, Persimmons, Walnuts*

One of the main goals of Portland Fruit Tree Project's Fruit Tree Stewardship Program is to empower tree owners with the knowledge and skills to care for their fruit trees themselves. This first section provides a general overview of fruit tree care basics. Later in this document, you will find tips and info specific to fruiting vines, nuts, and other common fruit trees (not classified as pome or stone fruit.)

We provide this information free of charge to the general public. However, if you have found this document useful, consider supporting the work of the Portland Fruit Tree Project (PFTP) by donating through the "Support Us" tab on our website ([www.portlandfruit.org](http://www.portlandfruit.org)). Also, please keep in mind that we have created this reference with PFTP-registered tree owners as our target audience. If your fruit tree is not registered with us and you would like to do so, please click on the "Tree Registration" tab on the homepage of our website.

PFTP also offers hands-on workshops on all of the tree care topics mentioned below. As a PFTP-registered tree owner, you may attend our Tree Care Workshops free-of-charge. Upcoming workshops are posted on our website and sent out in our monthly e-newsletter. *If you are not already subscribed and would like to receive to our e-newsletter, please contact us to sign up.*

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### YOUNG FRUIT TREES: SELECTION, PLANTING, & CARE

This resource is designed to educate owners of older, established fruit trees. In the future, this section will be expanded to include further information on fruit tree selection & planting. One important thing for owners of older trees to understand is that the variety and rootstock that was initially selected, the location where it was planted, how the tree was planted, and how it was cared for and trained while developing in its first five years, have all factored into the current health & productivity of your fruit tree(s).

### WATERING

If your tree is still young (under 5 years), summer watering is very important. Here in Portland, it is generally a good idea to water young trees 10 gallons per week (a single, deep watering) between early June and late September. If your tree is older than 5 years, summer watering is not necessary but is recommended if your tree is planted in a parking strip (the area between

the street and the sidewalk) or other location where it has limited access to water infiltration. Watering is also recommended if the weather has been especially hot and dry for more than a week.

## **PRUNING**

*Pruning is most easily learned through hands-on demonstration. For this reason, we strongly recommend that you attend a pruning workshop before attempting to prune on your own. PFTP offers hands-on pruning workshops in winter and summer.*

**Why prune?** Pruning is important for fruit tree health and productivity. Proper pruning can:

- Reduce tree size – so that fruit is reachable
- Improve structural strength
- Induce branching (when that is desired)
- Improve air flow – to decrease fungal susceptibility
- Increase light penetration - to increase fruit production and fruit ripening
- Prevent branches from breaking by decreasing weight on the lateral branches
- Concentrate the tree's energy into growing and ripening its fruit.
- Improve the aesthetic/beauty of the tree

### **When to prune?**

Winter Pruning is performed when the above-ground portion of the tree is dormant. This is a time for large “renovation” cuts and for invigorating the tree's growth. January & February are the months when you can expect the greatest beneficial response from your winter pruning cuts. Early to mid-March is still good but the beneficial response is somewhat reduced.

Summer Pruning is a time for smaller detail pruning of water sprouts, suckers, tip die-back, etc. The benefits of summer pruning will be greatest between June 21<sup>st</sup> & mid-August.

### **How to prune?**

- 1) A good approach for those new to pruning is to focus on removing the 3 D's: Dead, Diseased, or Disoriented branches. Dead branches show no signs of growth or leaves. Diseased branches have unusual growths or mal-formed leaves. Remove dead & diseased wood first. Then 'disoriented' branches, which include branches that are crossing, growing inward toward the center of the tree, or at an angle that might cause the branch to snap when loaded with fruit.
- 2) There are 2 main kinds of pruning cuts: Heading cuts shorten a branch; Thinning cuts remove a branch entirely. Heading cuts are made just above a bud, and thinning cuts are made at the branch collar. To learn more about pruning cuts, please attend a PFTP pruning workshop.
- 3) It's best not to remove more than 1/3 of the tree in a single year. Note: There may be exceptions to this. Please see the guide specific to your fruit type, later in this document.
- 4) Make sure that your blades are sharp, so that your cuts go straight through. Using dull tools can create rough wounds that are difficult for the tree to heal, and more prone to pests & disease.

- 5) Sanitize the blades of your pruning tools between trees, to avoid spreading disease. We recommend using a simple rubbing alcohol solution, applied with a clean rag or spray bottle.

## PEST & DISEASE MANAGEMENT

Keeping your tree healthy is your first line of defense against pests and disease, because healthy trees are naturally more resistance to pests & disease. Later in this document, you will find pest and disease information specific to your type of fruit tree(s). Here are some general tips that apply to all fruit trees:

**Spring Pest & Disease control:** Spring is a good time of year to focus energy on soil health and managing existing pest & disease factors. Here are some basic tips.

- Remove grasses and other weeds in a 2-3 foot radius around the base of the trunk, so that they will not compete with your tree for water & nutrients.
- Apply organic mulch (straw, woodchips, compost) within that 2-3 foot radius, up to 10" thick. Leave 6" of space between the mulch and the base of the trunk to discourage crown rot.
- Traps can be set in the spring to reduce pests specific to your tree. More specific recommendations may be listed under the particular tree types, later in this document.
- Spraying may be necessary if your tree has severe pest or disease issues. Depending on your specific tree type, we may offer suggestions of organic options later in this document.

**Fall Pest & Disease assessment & prevention:** During and just after harvest season is a great time to assess the pest & disease situation of your tree and to get your tree off to a healthy start for the following year. A few things you might want to consider:

- Clean up all fallen fruit. This is very important for breaking (or preventing) the life-cycle of pests & diseases. Any fruit that isn't harvested should be raked up and hot-composted away from the tree, or put in your yard waste bin for removal.
- Try to identify your pest & disease issues. If your fruit show signs of pests or disease, Fall is a great time to get that diagnosed so you can take appropriate steps to address it. Please see the Tree Care Resources page on our website for a list of books, websites, and other local organizations that may be able to help you with this. In addition, PFTP offers a Fall Tree Care workshop each year.

## FRUIT THINNING

For several species of fruit trees, thinning out some of the young fruit during May & June is recommended. Later in this document, you can see if this is suggested for your particular type of fruit tree. Fruit thinning provides the following benefits:

- Larger, sweeter fruit! Thinning concentrates the tree's energy on producing a smaller number of high quality fruit, rather than a large number of small, lower quality fruit.
- Increased air flow between the fruit, reducing susceptibility to disease and limiting pests ability to infest multiple fruit
- Reduced load of fruit on each branch, decreasing the chance of broken limbs from fruit weight.



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### Fruit Type: FIG

*Ficus carica*

Common varieties include:  
Brown Turkey, Desert King, Stella



### *Harvesting & Ripening*

- Most Figs bear two crops one in early summer and another in late summer and fall.
- Figs should be picked when they are fully ripe. Take a bite to test the ripeness. If it tastes good they are ready to pick! Full coloration is also a good indicator.
- If you want PFTP to harvest your tree, the best time to give us two weeks' notice is when about 33% of the figs have reached full coloration and are softening up.
- The two most common varieties of figs that are grown in Portland are Desert King and Brown Turkey. Desert King ripen to a light green with red flesh inside. Brown Turkeys ripen to a purple-green skin with red flesh inside.
- More specifically, when the neck of the individual fruit begins to bend down over the stem and the fruit begin to crack – this is the ideal harvest time. After picking, if milky white sap (latex) drips out of the stem – the fruit is not at its ideal ripeness.

### TREE CARE

#### Pruning

- Prune figs in the winter to keep the fruit-bearing wood within reach.
- Do not prune in summer unless you are following a very specific training system.
- Thinning out the canopy in winter by 1/3 should allow for a good first crop.

#### Pest & Disease Management

Generally, figs are not very susceptible to pests and disease. Be sure to keep up on harvesting and clean up your fallen fruit to avoid attracting flies, bees, and other insects. Sometimes fig trees will develop mold if there is not enough air flow and light penetration.

**Fruit Thinning** - Figs do not require fruit thinning.

#### Sources for Fig section:

1. *The Home Orchard*, a University of California Agriculture & Natural Resources Publication (2007)
2. “Fruit Tree Short Course” (Instructor: K.Tillou) at Clackamas CC – <http://depts.clackamas.edu/hort>
3. Home Orchard Society’s *Monthly Organic Guide for Home Orchards and Gardens: Maintaining Balance Within Your Home Ecosystem* by Ted Swensen



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### Fruit Type: GRAPE

*Vitis vinifera, Vitis labrusca, Vitis riparia,  
Vitis rotundifolia*



## *Harvesting & Ripening*

- The best way to tell if a grape is ripe is to taste it!
- When fully ripe the natural bloom or whitish coating on the fruit should be visible
- The color of the seeds will have changed from green to brown.
- The fruit should be slightly less firm to the touch
- If you want PFTP to harvest your vine, it is a good time to give us 2 weeks' notice when about 33% of the fruit has reached full size and coloration.
- Remove clusters with a knife or hand-shears.

## TREE CARE

In addition to the General Fruit Tree Care tips provided in Part II, here are some specific tips for Grape vines:

### Pruning

- Grapes are vigorous vines and require strong support to grow - such as a trellis, arbor, or fence.
- Grapes should be pruned to have 2-4 one year old canes. These canes should have 15 buds per cane. The best canes are those that are exposed to the most sunlight
- Pruning should be done January through March and 90% of last year's wood should be removed.
- Fruit is produced on current season's growth on last season's wood. Heavy pruning provides the best fruit.

### Pest & Disease Management

Birds are the most common pest related to Grape vines. Putting netting over the vine should keep birds out.

In the Portland area, the most common health issues with Grape vines tend to be fungal-related. Following our general tips for fruit tree care (in section II) should reduce the likelihood of fungal infection.

## **Fruit Thinning**

For maximum fruit quality and size, grapes can be thinned to one bunch per shoot.

## **Sources**

*Prune Your Grape Vines Heavily in Winter.* Caroline Savonen

<http://extension.oregonstate.edu/gardening/node/642>

*Growing Grapes for Home Use.* Emily Hoover & Peter Hemstad (2008)

<http://www.extension.umn.edu/distribution/horticulture/dg1103.html>



## Portland Fruit Tree Project Ripening, Harvesting, & Tree Care Guide

### Fruit Type: KIWI

*Actinidia arguta,*  
*Actinidia deliciosa, Actinidia kolomikta*



There are three different types of Kiwis that grow in the Pacific Northwest - the hardy kiwi (*A. arguta*), the fuzzy kiwi (*A. deliciosa*), and, the Arctic kiwi (*A. kolomikta*). In general, you will need to have both a male and female vine to cross-pollinate and produce fruit. Only the female will produce fruit. One male is needed for every 6-10 females. Self-fertile cultivars require no male, but benefit from cross-pollination.

### *Harvesting & Ripening*

- Fuzzy kiwis do not ripen on the vine in our climate and should be harvested after the first hard frost and ripened in cold storage.
- Hardy kiwis can ripen on the vine and be harvested in late October through the end of November, depending on your site.
- Wear gloves when harvesting to protect the skin of the fruit.
- Hardy kiwis should be picked without the stem, break stem off at the fruit-stem juncture by hand.
- Black seeds indicate ripeness, check your kiwis periodically in storage.

### TREE CARE

In addition to the General Fruit Tree Care tips provided in Part II, here are some specific tips for Kiwi trees.

#### **Pruning**

- Kiwis are vigorous vines and require a strong support to grow - such as a trellis, arbor, or fence.
- Pruning is best done in January or February when vines are dormant.
- Summer maintenance pruning after blooming may also be necessary.
- Kiwis form fruit on one-year-old wood.
- Prune out old laterals as they reach the end of their life span and allow new laterals to grow in their place.

## **Pest & Disease Management**

Phytophthora root rot may cause weak plant growth and development of small yellow leaves.

- Avoid over irrigation.
- Do not plant in heavy, wet clay soils.

Thrips is the other most common pest that affects kiwis in Portland.

- High populations of thrips at bloom are thought to cause scarring injury (ladderlike appearance) on fruit
- Thrips are tiny, slender insects with fringed wings. They are 1/20<sup>th</sup> of an inch long.
- Neem oil or Insecticidal soaps can be used to organically control thrips.

## **Fruit Thinning**

Kiwi fruit do not need to be thinned.

## **Sources-**

*Pruning Kiwis* <http://www.homeorchardsociety.org/article/22>

*The Home Orchard*, a University of California Agriculture & Natural Resources Publication (2007) – also mostly available online at <http://homeorchard.ucdavis.edu/>

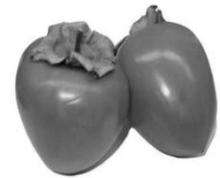


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**Fruit Type: PERSIMMON**

*Diospyros kaki*

Common varieties include: Fuyu, Hachiya



### ***Harvesting & Ripening***

- Persimmons should be picked when they have reached full color but before they are fully ripe.
- If you want PFTP to harvest your tree, it is a good time to give us 2 weeks' notice when about 33% of the fruit has reached full size and at least partial coloration.
- Persimmons of the Fuyu variety are squat and usually consist of four lobes, running from the stem to the base of the fruit, which divide the persimmon into quarters. Persimmons of the Hachiya variety are acorn-shaped.
- It is best to harvest persimmons when they are orange but before they get too soft. They will get progressively darker in color, softer, and sweeter.
- Persimmons, if not bruised or slashed, will store for awhile and will ripen on the counter. Fuyus can be eaten when they are still firm. Hachiyas are very astringent until they have reached a squishy-soft ripeness.
- Pruning shears are recommended when harvesting persimmons. Cut the stem somewhere between the fruit and the branch but make sure to leave some of the stem with the fruit.
- When harvesting, be careful not to break the stem off of the fruit. If broken, this will act as a wound on the Persimmon and reduce the amount of time that the fruit will last on the shelf/in storage.

### **TREE CARE**

In addition to the General Fruit Tree Care tips provided in Part II, here are some specific tips for Persimmon trees.

#### **Pruning**

- Persimmons require relatively little pruning. It is appropriate to prune them in the winter.
- Persimmons can be grown in a modified central leader or open center training system.
- In general, only the end three or four buds on a one-year-old branch will bear fruit. For this reason, you should only perform light winter pruning.
- Make heading cuts on some branches to 10-25 inches from the main branch to prevent branches from getting too spindly and unable to hold the weight of their fruit, and to encourage renewal of more reachable fruiting wood.

## **Pest & Disease Management**

Birds are the most common pests related to persimmon trees.

- Starlings, and other birds, are attracted to persimmons when they start to become bright orange and increasingly sweet. Thus, it is recommended to pick the fruit before it reaches full ripeness.
- You can also hang used CDs or other shiny objects from your tree to repel birds. However, these may need to be moved throughout the season so the birds do not become accustomed to that landscape feature.

## **Fruit Thinning**

Persimmons are not often thinned but, as with all fruit, thinning will help increase the size of the remaining fruit. Thinning the fruit to one every six inches is a general rule. |

## **Sources:**

1. *The Home Orchard*, a University of California Agriculture & Natural Resources Publication (2007) – also mostly available online at <http://homeorchard.ucdavis.edu/>
2. Karen Tillou's class outlines for the "Fruit Tree Short Course" at Clackamas County CC (Jan 2010) – <http://depts.clackamas.edu/hort>
3. Home Orchard Society's *Monthly Organic Guide for Home Orchards and Gardens: Maintaining Balance Within Your Home Ecosystem* by Ted Swensen



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**Fruit Type: WALNUT**



*Juglans regia* (English), *Juglans Hindsii* (Black)  
Common varieties include: Hartley, Scharsch Franquette,  
Placentia, Chandler, Howard, Pedro, Tehama

## ***Harvesting & Ripening***

- Walnuts have an inedible outer *hull* (or *husk*) that you must remove promptly after harvest so the nuts can dry properly. The longer the hulls remain on nuts after harvest, the more the nut quality deteriorates. After harvesting and hulling, you have to dry the nuts properly to reduce kernel moisture. Undried or improperly dried nuts are more likely to develop molds and a disagreeable flavor (rancidity), and have a shorter storage life.
- Walnuts are mature when the hull will cut free from the nut.
- They are usually harvested once the rains have begun to make the walnuts fall to the ground, in October. Nuts will rapidly decline in quality once they have fallen - so harvest frequently.
- You can shake the limbs to make the nuts fall, but do it carefully so as not to harm the tree.
- Use gloves when harvesting to avoid staining your hands.

## **TREE CARE**

In addition to the General Fruit Tree Care tips provided in Part II, here are some specific tips for Walnut trees.

### **Pruning**

- The modified central leader training system is recommended for Walnuts.
- Moderate pruning is needed every 2 to 3 years. Thin out shoots in the tops of trees to maintain production. Once the tree is matured, heavy pruning should take place every 3 to 5 years.
- Walnuts should be pruned in the winter season when the above-ground portion of the tree is dormant.

### **Pest & Disease Management**

Codling moth is one of the two most common pests that affect Walnuts in Portland

- Codling moths are small, ½ inch long, mottled gray moths. When you find a worm in your walnut, it is usually a codling moth larva.
- Moths become active in late April and begin mating when sunset temperatures reach 62 degrees.

- Eggs are deposited on fruit or nearby leaves. After the eggs hatch, larvae seek out and bore into developing fruit. They leave brown-colored holes in the fruit that are filled with frass (excrement.)
- Codling moths are difficult to manage so combining a number of techniques is important for achieving positive results.
- Trapping, fruit barriers (e.g. paper baggies or nylon footies,) fruit thinning, and cleaning up fallen fruit are all practices that can help to reduce codling moth damage.
- You can make cheap, organic traps for your trees by wrapping corrugated cardboard around the trunk and large branches or by hanging plastic containers filled with a mixture of 1 cup cider vinegar, 1/3 cup dark molasses, 1/8 teaspoon ammonia, and enough water to make 1-1/2 quarts of liquid.

Walnut Husk Fly is the other most common pest that affects Walnuts in Portland

- The larval or immature stage of this insect is a maggot up to 3/16 inch long, which feeds in the husk. Larval feeding destroys the husk tissue and stains the nut and kernel.
- Walnut husk fly is only considered a problem for commercial orchards. Typically, home orchardists can ignore them.

Walnut Blight is the most common disease that affects Walnuts in Portland

- Walnut Blight overwinters on infected buds.
- Frequent prolonged rains before, during, and, after bloom result in severe Blight outbreak.
- Three sprays of OMRI-approved copper during the bloom period are recommended for blight control.

**Fruit Thinning** - Walnuts do not need to be thinned.

**Sources:**

1. *Harvesting and Storing Your Home Orchard's Nut Crop: Almonds, Walnuts, Chestnuts, Pecans, and Pistachios.* E. Perry & G. Sibbett (1998) <http://homeorchard.ucdavis.edu/8005.pdf>

2. *Walnut Codling Moth IPM.* University of California (2011)  
<http://www.ipm.ucdavis.edu/PMG/r881300211.html>

3. *Walnut Husk Fly IPM.* University of California (2009)  
<http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7430.html>

4. *Walnut Pest Management Guide for the Willamette Valley* (2011)  
<http://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/20062/em8421.pdf>

5. *Growing Walnuts in Oregon.* OSU Extension Service (2006)  
[groups.ucanr.org/nutrientmanagement/files/81460.pdf](http://groups.ucanr.org/nutrientmanagement/files/81460.pdf)

6. *Growing Nut Trees in Your Backyard or Orchard.* OSU Extension Service - Judy Scott  
<http://extension.oregonstate.edu/gardening/node/1050>