



Factsheet: Aftercare

During the first few years in the life of a newly planted fruit tree, it is important to follow the cultural steps outlined below in order to ensure success in growth, development, and quality fruit production. We discuss some of the most important aftercare principles, assuming proper planting technique was applied.

Watering: A general rule of thumb for watering trees is to do so with about *1.5 gallons for every inch of trunk caliper* (as measured about a foot from ground level) for established trees and *double that* for newly-planted trees. Another rule of thumb is to water *deeply but infrequently* (reaching the entire depth of the rootball with each watering). Always adjust your watering schedule to account for soil types and the weather (heavy rains count as a watering). Keep soils moist but not saturated. Too much water or waterlogged soils will displace oxygen that roots need for survival.

Newly planted trees have greater irrigation needs than established trees since they only have the roots that grew in their containers, or if planted as “bareroot,” only those that are visible. Once planted, keeping this rootball moist is critical for survival. *Plan on watering newly planted trees at least twice a week* during the growing season (spring and summer). If you have created a berm around the tree to hold water, an easy practice is to fill the basin to the top with water.

Watch fruit trees for signs of drought stress, which may appear as loss of leaf sheen, wilting, and leaf drop. It is also important to avoid overwatering, which can often result in symptoms similar to not watering enough. In order to determine water needs, feel the soil about 6 inches from the base of the tree, at about 6-10 inches deep. If the soil is moist at this depth, then there is no need for irrigation. Standing pools of water in the basin for 24 hours or more can be a sign of poor drainage and/or overwatering. As the tree matures, water applications should be located towards the edge or just within the tree’s canopy or drip line and outwards to encourage growth into the native soil.

Remember to adjust your watering to the weather and soil conditions. For example, during times of lower temperatures, trees require less frequent watering; trees in heavy clay soils may be better off with less frequent watering; and those in very sandy soils may need more than twice a week. During the hottest times of the year, watering may need to increase to more than twice a week and then reduced significantly or not at all during the winter/rainy season.

Key points for watering:

- Water newly planted trees at least twice a week (heavy rainfall counts as a watering) with about 3 gallons per inch of tree caliper as a minimum, during the growing season, until they become more established (1-2 years).
- Once the tree is established, water the tree about once a week with about 1.5 gallons per inch of tree caliper.
- Depending on your climate, watering needs may be significantly reduced in the winter/rainy season.
- Always test the soil to adjust your watering practices so that it doesn't remain too dry or too wet.

Weeding: The area underneath the tree should be kept free of weeds and other unintentional plants that are competing for nutrients. If left, these plants can also create an environment for disease and insects to thrive, especially if they are touching the tree trunk. A layer of mulch will help suppress weeds, however, inevitably, they will make their way through the layers to the surface. Keeping the dripline area underneath the tree weeded will create a healthier environment for your tree. During the growing season, be sure to remove weeds, especially focusing on the area right around the base of the tree.

Key point for weeding:

- Check the tree regularly and pull weeds from the immediate area around the base of the trunk as needed during the growing season.

Mulching: Mulch is organic matter that is applied to the area around the base of the tree. Mulch acts as a covering that holds moisture in the soil, can reduce soil temperature extremes (both hot and cold), prevents weed germination and competition, and can improve soil quality as it decomposes by making soils more friable while slowly feeding microorganisms in the soil that release nutrients to your plants. Lastly, a thick mulch can provide improved aesthetic qualities. The best choices for mulch include coarse materials like shredded bark or wood chips, but other good choices include straw, leaf litter, and home compost. Apply mulch in 3 to 6 inch layers *without touching the base of the tree* (which can cause decay at the tree's crown and encourage disease). One of the main sources of failure in trees that we have found is the piling up of organic material at the base of the tree against the trunk. Be sure to constantly monitor this very sensitive part of the tree and always pull back any organic material touching the trunk that is above the level of the soil at planting time. Taper the mulch so that it is thicker as you move away from the tree's crown.

Key points for mulching:

- Mulch is critical to help trees conserve water resources, reduce competition from other plants, and improve soil quality and should be applied every spring or as needed.

- Never pile any amount of mulch on the base of the trunk. Check this area regularly and pull back any organic matter that has piled up against the trunk above the level of the soil at planting time.

Pruning: The first 3 to 4 years in the life of a fruit tree needs to be focused on the development of the main structure of the tree (i.e. main scaffold limbs and lateral branches at the right heights, angles, and numbers) and not on fruit production. As the tree matures and fruit begins to develop, pruning will be focused on methods that will encourage better fruit production while maintaining the health and structural integrity of your fruit tree. Generally speaking, pruning should take place during the winter months for deciduous fruit trees, when the tree is in dormancy and is thus less susceptible to trauma and stress, and should be done once a year, however, summer pruning is important for training in the early life of a fruit tree. Summer pruning can also be used on mature trees to maintain tree size. Pruning is a complex topic that can be explored further in our other materials, but an easy rule of thumb is that it's always recommended to remove dead, diseased, or dying stems at any time (being careful to sterilize the pruner after working with any diseased parts of a tree to reduce contamination).

Key points for pruning:

- Pruning young fruit trees should focus on training the tree for an ideal structure and requires further reading for those unfamiliar with best practices. (Every pruning cut should have a reason and purpose, if you don't know why you are making the cut, don't follow through with it.)
- Dead, diseased, or dying parts of the tree can be pruned at any time (sterilizing the pruners between cuts if working with a diseased tree).

Fertilization: Fertilization at planting time is normally not necessary, and can actually harm a young tree. Sometimes, an organic slow release application may promote stronger root growth during winter dormancy. A fertilizer that is higher in phosphorus and potassium and lower in nitrogen is preferred to promote better root growth, winter hardiness, and fruit production. For fruit or nut trees, follow the recommendations for the specific crop after the new tree has become established for at least one growing season. Excess fertilizers can be a stressor, especially at planting time, so be careful not to overapply. Topical layers of organic compost, however, with a layer of mulch on top, can benefit a fruit tree, and should be applied as an alternative to traditional fertilizers at planting and beyond, always remembering not to pile up any additional materials against the base of the tree.

Key points for fertilizing:

- Fertilizing young fruit trees is not necessary and can actually cause stress for the tree.
- As an alternative, consider applying a thin layer of compost around the dripline of the tree, under a layer of much (but never piling up against the trunk).

Staking: Stake the tree, only if necessary. If the tree is well-grown with a sturdy trunk, staking for support is not necessary in most situations. *Trees will establish more quickly and develop a stronger trunk and root system if they are not staked at the time of planting.* Protective staking may be necessary in some situations where vandalism, windy conditions, or other concerns may prevent the tree from developing a straight trunk. Some dwarf rootstocks also require staking due to instability, but these types are rare. If staking is necessary for support, always use two stakes opposite each other with a wide, flexible tie material (narrow, or sharp-edged ties are more likely to cause friction wounds on the trunk). Stakes should be placed perpendicular to the direction of the prevailing wind. Be careful not to drive the stake through the root ball and remember, flexibility is essential as this will help increase the trunk diameter, so do not stake the tree too tightly, allowing the tree to have a natural degree of movement. Tie the tree to the stake using a figure-eight pattern at the lowest point possible that provides the necessary support. Be sure to remove stakes after the tree has stabilized (we find many trees with old ties on them that become embedded into the bark).

Key point for staking:

- Staking can weaken a tree over time and should only be practiced if necessary, in situations where the tree has a true dwarf rootstock or is in an area subject to vandalism or unusually high winds.

Spraying: As a general rule, keeping a tree healthy and free from conditions that lead to disease will be its best defense. One preventative practice involves spraying a dormant oil mixture on trees when they are dormant (this is for deciduous trees only, if your tree has leaves or is evergreen, do not use). The ingredients address overwintering insects/eggs and other fungal growths. Prepare the following mixture and apply with a sprayer *only* when the tree is dormant and there is no rain in the forecast for the next few days (so it doesn't simply wash off). Spray the entire tree with a light coating, once (or twice for added protection) at the end of winter.

Organic dormant oil recipe

- 1 gallon warm water
- 1.5 tablespoons baking soda (fungicide)
- 1 tablespoon vegetable oil (insecticide for overwintering insects)
- 3-5 drops liquid castile soap (helps with mixture consistency and application)
- 1 teaspoon cayenne pepper powder (optional: insect repellent)

Key point for spraying:

- Dormant oil sprays should only be applied when deciduous trees don't have their leaves.

Essential Aftercare Checklist:

- ✓ Mulching (late winter/early spring): Apply mulch around the tree's dripline, without piling any on the base of the trunk. Add as needed throughout the season.
- ✓ Watering (spring/summer): Water newly-planted trees at least twice a week, each time applying enough water so that it reaches the entire depth of the rootball. Check soil moisture to adjust watering practices accordingly.
- ✓ Weeding (year-round): Regularly check for weeds at the base of the tree and remove any that may appear. Pull back any materials that have piled against the trunk above the original soil level at planting.
- ✓ Pruning (year-round): As needed, prune dead, diseased or dying branches.
- ✓ Off-season watering (fall/winter): Reduce watering schedule and adjust it so that trees continue to receive adequate water throughout the year.
- ✓ Spraying (late winter): Apply dormant oil spray to dormant, deciduous trees.