

TREE PLANTING TIPS FOR ALMONDS & STONEFRUIT

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Preplant

- Do all leveling, ripping, or backhoeing the summer before so winter rains can settle the soil before planting.
- When planting a second-generation orchard, soil fumigation is often necessary. Fumigation after winter rains have started is less effective and can result in harmful residues of some fumigants at planting time.
- All plant vegetation should be removed or killed preceding the actual tree planting operation. Excessive vegetation that is buried can deplete nitrogen and create toxic gas that will kill roots.
- It is a good idea to plant trees on berms, even in sandy soils. Narrow, steep berms can be problematic at harvest. Wide berms with gradual slopes make harvest operations easier.

Planting

- Plant when soil moisture is ideal. Digging in wet soils can destroy soil structure and lead to glazing of the planting hole, creating a “flower pot” effect, especially in augered holes. If the soil is too wet, it is best to place trees in cold storage until the ground is dry enough to work.
- Roots should be covered and kept moist while transporting, storing or planting. If trees are healed in before planting, select a site free of pest or disease problems ideally within the same field being planted. If soil has been fumigated, heal trees in fumigated soil.
- Dig or auger holes the day of planting.
- At planting, cut only excessively long, crossed or broken roots from the nursery tree. The larger the root system, the better. Do not prune roots to “balance” the roots with the shoots.
- Roots should be treated for crown gall by spraying the roots with *Agrobacterium radiobacter* (Galltrol® or Norbac). If trees are “healed in” and then planted they should be treated before healing in and then again at planting. Treating with bleach is not a substitute for the *A. radiobacter* treatment.
- Plant trees so that the crown will remain high. The top root should be planted at ground level. Some holes will settle 3 inches or more, so allow for future settling when planting. Don’t plant trees with the idea of pulling them up later. This can damage roots. After settling, the new tree should never be deeper than it was planted in the nursery. Dirt should never cover the graft union.
 - On Marianna 2624 plum rootstock, planting trees high causes them to root sucker more than when planted deeper. Therefore, plant this rootstock the same depth as planted in the nursery. Plum rootstocks will tolerate wetter conditions than most other rootstocks.
- If not planting on berms, make mounds 6 to 8 inches high and approximately 3 feet in diameter. Plant trees on top of the mound or berm. Unless mounds are unusually high or soil is very sandy, the water will sub over to the roots.
- Place roots in hole so that the roots are straight and pointed downward. Make sure the roots are not curved around the hole.

- Back-fill dirt into hole placing loose, moist soil around roots. Press dirt firmly around roots making sure that no air pockets occur around the crown.
- Whether you should water a tree in after planting depends on soil type and climate.
 - In areas where annual rainfall is greater than 15-20 inches and soils are high in clay content, it is not advisable to water in trees as long as soil is moist at planting.
 - In areas where soils are sandier and annual rainfall is often less than 10 inches, tanking in trees with 2-3 gallons of water is important. Do not rely on winter rains. Trees not tanked in will get off to a slow start or may not push at all.
 - Trees planted out of cold storage in late March or later may need to be watered in.
- Cut almond trees about 36 inch high. High trunks will allow for easy shaker access and less trunk damage. Fruit trees should be cut at 10-12 inches to allow for easier hand picking.
- Paint the tree to reduce potential damage from sunburn or borers. Dilute white interior latex paint to 1:1 or 2:1 with water. Paint the tree below ground level then apply the last shovels of dirt around the trunk.
- Tree protectors will protect against rodents and herbicide sprays. It is common for trees to sunburn near the top of milk cartons due to reflective heat. Be sure to paint this area with white paint.

Post Planting Care

- Don't re-water until after trees are growing well (about 6 inches new growth) and then only when the moisture has become somewhat depleted around the root area. The first few irrigations are the most critical to good tree growth. Irrigate too soon and the tree roots suffer and die from lack of oxygen and Phytophthora root rot. Irrigate too late and tree growth ceases. Digging down around roots to check moisture is an excellent practice that cannot be overemphasized.
- If planting in a windy area, it is sometimes necessary to stake trees. When tying trees to a stake, tie loosely with 1 inch tying tape or tree rope. Don't tie tightly; let the tree sway. Remove stakes after the first season.
- Control weed growth around the tree after planting. If you use herbicides, make sure they are registered for use on nonbearing trees and are used correctly. Use contact herbicides like paraquat to control existing weeds. Avoid use of systemic herbicides like Roundup®.
- Intercropping is not advisable. If you do, remember that the trees are the main crop. Don't mismanage the trees for the sake of the intercrop. Don't select intercrops that will cause pest buildup (*Verticillium*, nematodes, mites, etc.) or need to be dried out during the summer for harvest (hay, grain).
- Provide adequate irrigations to keep trees growing throughout the spring and summer.
- Never place nitrogen, boron or manure in the planting hole at planting time.
- Fertilize trees after they are growing well. A good guideline to use is ¼ lb. of N per tree the first year and ½ lb. N the second year. It is best to divide the annual amount of nitrogen into 3-4 small applications through the season. Don't place the fertilizer next to the trunk but sprinkle it 18" away from the tree. Water the fertilizer adequately to distribute throughout the root zone. On sprinkler irrigated trees, apply at least 2 inches of water following a fertilizer application.

Planting trees correctly takes a lot of planning and extra work but it is worth it. Remember, an orchard is a long-term investment and it is important to do things correctly the first time. Orchards planted without proper pre-plant soil preparations will never reach their full potential.

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