



HANDLING & PLANTING BARE ROOT PLANTS

FROM THE
ANDERSON'S
FRUIT GROWING GUIDE
BY MARK ANDERSON

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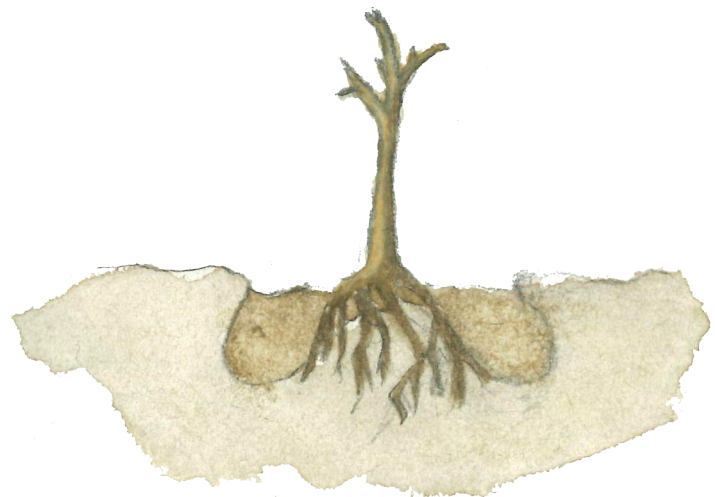
Early spring is the best time to find bare root trees - both fruit and shade trees - and many other plants like berries and grapes. So what does bare root mean? How do you successfully plant bare root plants? A bare root tree, shrub or vine is a plant that is still dormant, and has no pot and/or no soil around its roots. Bare root plants have many advantages.

- 1) the plant is dormant, so it will experience less transplant shock if treated correctly.
- 2) Often you can find a better selection of fruits and plants because many nurseries offer more variety in bare root than in containers.
- 3) Price. Bare root plants are generally 25-40% less money than container plants.

Planting bare root is not hard, but there are some steps that you must follow when planting. Follow these simple instructions for transplanting success.

When purchasing your bare root plants, look for sturdy plants with strong stems, clean grafts and no damage to the trunk or bark. The freshest root stock have usually been hilled (covered) into large pots or barrels with a light soil/mulch combination - do your best to make sure the roots have been covered and have remained moist during their time in the pots. After purchasing, make sure to bag the roots and handle gently when transporting them to their new home. Immediately upon arrival at home, soak them in water or a root stimulator solution for 12-24 hours before planting to fully hydrate the root system. Don't forget to water the tops as well, and place the plants in a partially shady location until planting. The number one cause of failure when planting bare root is that the delicate feeder roots dry out and lose viability. Keep those roots moist! Don't let the bare root plants sit around for days/weeks without planting them - they need to be planted as soon as they are well hydrated for best results.

While the plants are soaking, dig the holes 2-3 times larger than the diameter of the root system, and deep enough so that the graft or crown of the roots will be just above the soil line. Remove any rocks or debris from the soil excavated from the hole. Add 25-30% of a compost or planting mix to the soil to help with drainage and moisture absorption. If your soil has a high clay content or if you encounter hardpan at the bottom of the hole, it may help to dig the holes extra deep, then backfill with your soil mix to the correct depth. In heavy clay soils, we also recommend digging deeper around the outside of the hole, so that the center is higher, allowing excess water to drain away from the root system. Many newly planted trees and shrubs die from poor drainage and standing water more than from lack of water.



Cross Section of Bare Root Planting

Notice the width and depth of the hole, the cone of dirt that supports the root system, and where the graft of the tree is positioned after backfilling the hole with soil.

Before planting (or right after planting), prune the tops. For trees, prune off any broken, dead or damaged, crisscrossing, and excess trunk branches. Depending on your desired tree form, leave 4-6 main branches and remove the rest. Head those branches back 1/3 to 2/3 of the length. This will help eliminate stress off the roots that have been damaged from digging and transport and help them bud more evenly. Only prune the roots if they are broken or diseased. Healthy roots will appear light brown, firm, and feel crisp - there may even be white, fine, new root hairs developing on older roots. Be careful not to damage those fine root hairs when planting. For shrubs, vines and berries, we usually recommend pruning the plant back 25-50% to help compensate for root damage when they were dug.

Add an inch or two of the soil/compost mixture into the bottom of the hole - some gardeners will even put a cone of soil in the center of the hole to help hold the tree or shrub in place while backfilling. Add a generous amount of Myke Tree and Shrub transplanter to the bottom of the hole and sprinkle the roots as well, so that they are evenly covered. Myke is a natural fungus that has a symbiotic relationship with your plant's roots that creates its own microscopic root system that searches out water and nutrient to sustain its host. This dramatically increases root development and mass, and the overall health of the new addition to your garden.

Position the tree or plant in the hole so that the graft (the large knobby part found right between the trunk and the roots) or the crown (where the stem or leaves come out of the roots) is about 1 inch above the final soil line. If this graft is placed below the soil line, the tissue of the trunk can rot or send up unwanted suckers. If it is placed too high, the root tissue may be damaged by exposure to sunlight and weather extremes. When placing the plant in the hole, make sure to keep the roots from curling upwards at the ends. Keep those roots moving outwards and down, not up.

Fill the hole back in with the soil/compost mixture. Make sure to get the soil in between the roots, and tamp the soil down gently to remove air pockets. Fill the hole until the soil is back even with the existing soil line. Build up the soil in a ring around the outside diameter of the hole to make a nice, shallow pool to contain water, allowing it to soak in slowly and not run off.

Water thoroughly with the water or Root Stimulator (Kangaroots is our all-time favorite natural root drench) mixture used to soak the trees. Mix up more as needed. Water gradually until the soil is completely moist. **DO NOT OVER WATER.** Depending on the daytime temperatures and the soil type, most trees and shrubs will only need watering once every 5-10 days. The best way to determine when to water is to dig down into the soil mix 6-8 inches away from the trunk. If the soil is still damp down 2-3 inches, then you can wait another day or two to water. Check the soil again before watering. When the soil is feeling dry at 2-3 inch depth, then it is time to water again. Make sure to use enough water to saturate the soil mixture completely. We recommend using the Root Stimulator on new bare root plants for the first 3-4 waterings.

Newly transplanted plants require minimal fertilizer the first year. A slow release nitrogen with micro-nutrients like Fertilome Start-N-Grow or Natural Guard Organic Plant Starter with natural microbes and bio-stimulators would be excellent choices to feed a new plant all year long with one or two applications. The most important fertilizer you can give your new plants is the first 3-4 applications of root stimulator when watering - it will quickly prepare the roots for establishment in their new home and build a strong foundation for new growth.



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