

How to Plant a Bare Root Tree or Shrub

John Pennington
Instructor,
Water Quality Educator

Jaret Rushing
Forestry Instructor /
Educator

Hanna Cravens
County Extension
Agent - Agriculture

Jacob Hackman
Assistant Professor -
Forestry Management &
Forestry Extension

Introduction

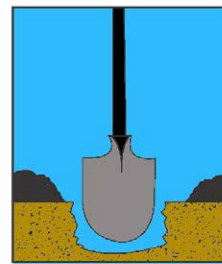
Bare root plants are seedlings harvested from the ground while dormant. They are bundled together with material to keep their roots moist, bagged, and transported while in a dormant state to a tree cooler or directly to a buyer. The trees may be distributed individually or in bundles.

Bare Root Seedling Care

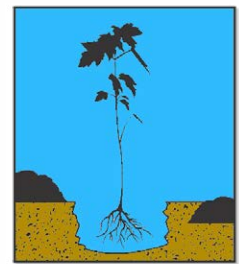
Taking care of bare root plant stock from the moment it is received is important, and planting it as soon as possible is recommended. Survivability of bare root plants depends largely on the care taken during storage, transport, distribution and planting.



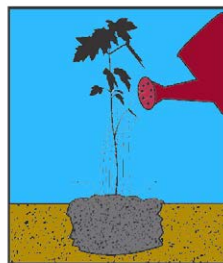
Keep roots moist and plant as soon as possible. Soak roots in water for 3-6 hours before planting.



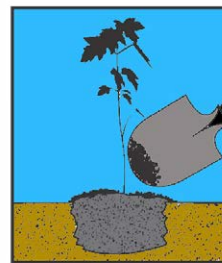
Dig a wide hole no deeper than the tree roots.



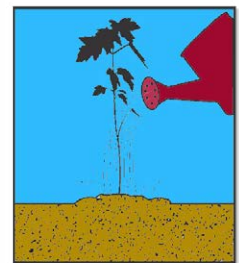
Plant so only roots are below ground. Planting too deep will kill trees.



Refill hole with same soil that was removed and water generously. Do not use potting soil or fertilizer.



Mulch plant area. Don't let mulch touch stem.



Water regularly for the first two years, if possible.



A person using a dibble bar to plant a tree.

Temporary storage of bare root plants is almost always required before planting due to a variety of factors. It is important to always keep the roots moist during storage, transport and planting. The optimal storage temperature for bare root seedlings is 33°F – 40°F, which can be achieved in a walk-in cooler or refrigerator. Many times recipients of bare root seedlings may not have a refrigerated location to store the trees. In such cases, storing the plants in a dark and cool environment like a garage will work for a short time. Remember, planting bare root plants as soon as possible is recommended for the best survival, health and growth of new plants.

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Do not let roots dry out, do not store in direct sunlight, keep in a cool moist place before planting, if roots dry out before planting the tree will die. Do not j root the saplings. (read on for details)

Planting Bare Root Seedlings

When planting bare root seedlings, it is important to make sure that the roots are completely vertical or hanging in the soil and pointing down. If the roots are pointing upward as a “j” root while planting and/or are out of the soil, they will have difficulty growing or will die. When exposed roots on bare root plants die, the plants’ chances of survival decrease.

Many tools can be used to plant a bare root tree, including dibble bars, sharp shooters, shovels, hoedads and augurs.

When planting, carry plants to the site in a container with enough moisture (bag with wet moss / bucket with water). After bare root seedlings are planted, they should be watered and protected from wildlife, domestic animals, mowers and weed eaters by the use of tree protectors. To install a tree protector, use a stake next to the plant and wrap or place the protector around or over the stake and the plant.

- Don’t leave rootstock exposed when storing
- Don’t plant trees on unsuitable sites (under power lines, near sewer drains, close to a home foundation)
- Don’t allow the rootstock to dry out
- Don’t plant bare root seedlings at an angle in the soil other than upright

Summary

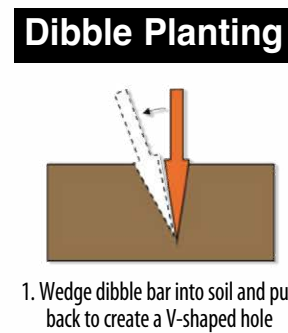
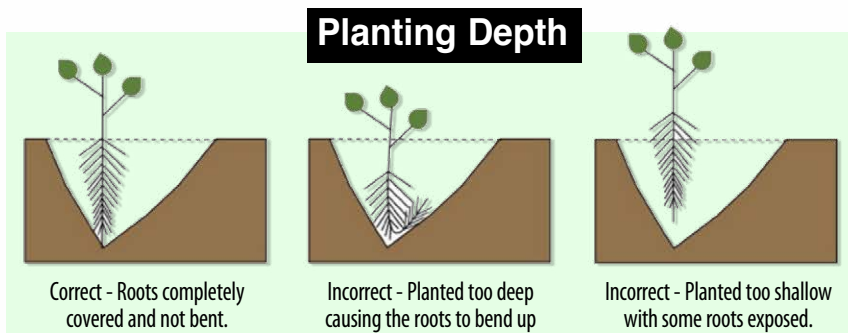
Planting bare root plants is fairly simple, but proper care must be taken of them before and during planting to ensure their vigor and prevent premature death from disease and/or drying out during storage prior to planting.



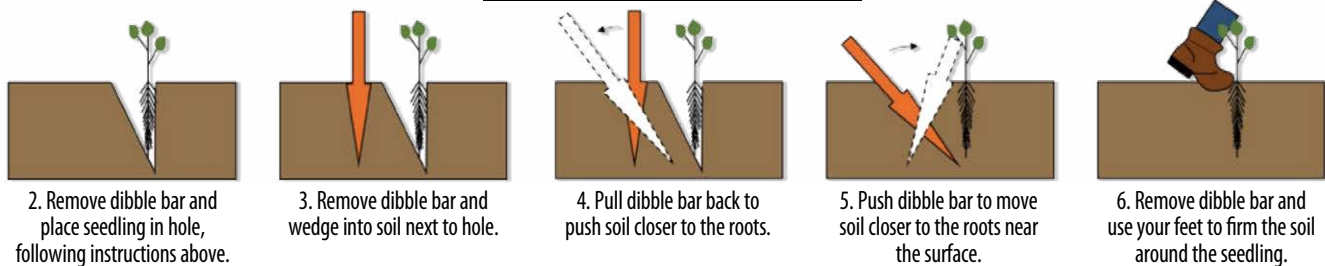
Applying mulch and using a tree protector around the newly planted seedling can increase its chances of survival.

References

1. Robbins, James A. (2018). Landscape Series: Planting a Tree or Shrub. <https://www.uaex.uada.edu/publications/pdf/FSA-6128.pdf>
2. Baker, Bryant. Jennifer Ogle, Bethany Alender, John Pennington. Riparian Planting Guide of the Ozarks. (2022). <https://www.beaverwatershedalliance.org/wp-content/uploads/2022/03/Riparian-Planting-Guide-Ozarks-Update.pdf>
3. Arkansas Department of Agriculture Forestry Division. Seedling Care and Planting Guidelines. (2023). <https://media.ark.org/agri/Seedling-Care-and-Planting-Guidelines-Booklet-041223B.pdf>



Dibble Planting (cont.)



Credit to Beaver Watershed Alliance for the illustrations above.

JOHN PENNINGTON is an instructor - water quality educator. **JACOB HACKMAN** is assistant professor - forestry management and forestry extension. Both are with the University of Arkansas Division of Agriculture in Little Rock, AR. **JARET RUSHING** is forestry instructor and educator in Monticello, Arkansas. **HANNA CRAVENS** is a county extension agent - agriculture in Van Buren, Arkansas. FSA9545-PD-5-2026

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