

Planting and Care Guide

For Bare Root Tree and Shrub Seedlings

Site Selection

Choosing the proper planting site is essential to the success of your tree or shrub seedlings. Visit us online at www.chiefrivernursery.com where you will find specific information on each type of seedling we sell. Observe the Planting Zones as well as recommended soil type, light and moisture requirements. Review the mature height and spread to determine planting distances.

Preparation of Planting Site

It is necessary to remove and keep surrounding vegetation at bay so the seedlings are not forced to compete for soil nutrients, space and light. When possible, remove all vegetation in an area approximately 18" surrounding the planting site for your seedling. Trim or mow the area and spray with a non-selective herbicide. Usage of most over the counter products can be followed with planting 1 to 3 days after spraying the area. [Read the product label for specific planting information after product use.](#) Failure to remove competing vegetation will decrease the survival rate of seedlings.

When you receive seedlings

Immediately open the box and confirm your order. Since things may shift during the shipping process, make sure the roots are still covered with moist sphagnum moss. If the roots are not moist, spray them with water and surround them with moist sphagnum moss.

Your seedlings will have the highest survival rate when prepared and planted immediately after delivery. If immediate planting is not possible:

- Keep seedlings in a cold area out of the sunlight. The ideal temperature range for holding dormant seedlings is between 33 and 34 degrees Fahrenheit. If outdoor temperature remains cold when you receive the seedlings, you may place them in a shed or outbuilding. Make sure the building does not heat up during the day and the box isn't exposed to sunlight.
- If cold storage is not available, place the seedlings in a dark and cool place such as a cellar or basement. Ever so slightly open the bag to allow for a bit of air circulation. Check the seedlings every 24 hours to make sure the roots and sphagnum moss are moist. Gently spray with water as needed.
- If you intend to take the seedlings out of their original packaging, it is important that the roots remain moist but not wet. A good method of holding is to fill the bottom of a bucket or tub with 2"-3" of water. Next, add shredded paper or sphagnum moss and mix well. Place seedlings in the tub, packing the roots with the moist moss. Check moisture content daily. Roots must remain moist, but not soaking directly in water.
- If the seedlings will not be planted within 3-5 days of receipt or cold storage is unavailable we suggest you use a method known as "healing in". Choose a protected location out of direct sun. Dig a trench deep enough that the roots fit in without bending them. Keep the bundled

seedlings intact. Place the roots of the bundled trees in the trench and completely cover them with soil. Give the trench a thorough watering and let settle for a few minutes. Add a little more soil as needed to ensure the roots remain covered. Firm the soil with your foot. Heeled in seedlings will keep for several weeks if they are watered thoroughly once the soil begins to dry out. Even with this method, it is highly recommended that you plant before any leaves are sprouting.

Preparation of Seedlings

Set the stage for a successful planting experience by following these tips.

- Soak roots of the seedlings for 4 to 6 hours immediately prior to planting. This is the time to use a root dip, particularly if you are unable to provide the suggested follow up care. We carry two products: Super Gel and SUPERspore. While a root dip is beneficial, it is *not* a substitute for follow up care. Soaking the roots helps to plump them up, which encourages water uptake and full hydration prior to planting. We do not recommend soaking longer than 8 hours as this may increase the risk of oxygen deprivation which may harm the roots.
- When transporting seedlings to planting location they should be in a container which keeps roots moist right up to planting. We suggest you pack the roots in moist shredded paper or sphagnum moss. The key is to keep the roots moist at all times.
- We do not recommend transporting seedlings into the field in the plastic bag in which they were delivered. A plastic bag may act as a mini-greenhouse exposing the seedlings to extreme temperatures which will harm the seedlings.

Planting Trees and Shrubs

Planning: Visiting the planting site before seedlings are delivered is an important start. This may help you avoid unforeseen issues on planting day. You might dig several test holes, as well.

Weather: To minimize seedling stress, choose a calm, cool, cloudy planting day when possible. Warm, sunny or windy days will increase the likelihood of roots drying out. Seedlings exposed to these conditions may have a lower survival rate. It is critical that roots remain moist up to the moment the seedling is placed into the ground.

Planting methods: The method and speed at which you plant will depend on soil type and seedling size. As an example, sandy loam is far easier to plant quickly than heavy clay. Smaller seedlings can be planted more quickly than the large transplants due to the size of the root structure.

When it comes to planting bare root nursery stock there are two primary methods; the hole method and the slit method.

Hole method: Use a shovel and/or pick axe to dig a hole which is wide and deep enough to accommodate the root structure of the seedling. Next, place the seedling into the hole, spreading the roots out as much as possible. Do not allow the roots to bend or curl around inside the planting hole. Now, break apart the soil that was removed from the hole and place around the root system up to the

root collar of the tree. The root collar is a noticeable line of change in the texture and bark color, which shows where the soil line was before the seedling was harvested. Finally, water the seedling in, making sure all roots are covered and no air pockets exist in the planting hole.

Slit method: Drive a planting bar or planting spade into the soil. Rock the implement back and forth to create a V-shaped hole in the ground. Next, place the seedling into the hole so the root collar is at or ever so slightly below ground level when the hole is closed. Be certain the hole is deep enough so the seedling will not experience a “J” root (roots which curl sideways or back up towards the top of the hole due to insufficient hole depth). Now, insert the planting implement into the soil, about 2”- 3” from the slit in which the seedling is placed. Pull the implement towards the seedling to close the hole containing the seedling. The slit must be closed firmly so air cannot reach the roots. Firm the soil around the roots so that it would take a moderate tug to dislodge the seedling from the planting site. Finally, water the seedling in.

Mulching: To contain moisture around the root zone, we recommend a 2”- 3” layer of wood chips approximately 12” diameter around seedling center. This works in moderating the soil temperature and assists in keeping the weeds at bay during the critical establishment period. Keep the mulch about an inch away from the leader or stem.

Follow-up Care

Now that your seedlings are planted in the ground, you’ll shift your focus to follow up care. Proper follow up care is necessary in achieving the highest survival rate. Without proper follow up care, you will experience a higher mortality rate among your seedlings.

Watering: Water during the crucial first year of growth is the most important component to ensure seedling survival. In the event your seedlings are not receiving 1” or more of rainfall each week, it will be necessary to provide supplemental watering.

Deep watering approximately once each week is more beneficial than frequent light watering. Deep watering is achieved when the soil at and around the root zone is thoroughly watered, not just the surface area. This forces roots to grow deeper in search of moisture. We suggest 1-2 gallons of water each week, per plant.

The exception to this guideline is when temperatures are warmer than 85F, the planting site is in an area with exposure to hot sun or wind or drought conditions. It is necessary to provide more frequent deep watering under any of those conditions, up to 2-3 times per week.

Keep competition at bay: After planting, be sure to keep grasses and weeds at bay. This will further encourage seedlings to flourish without the need to compete for sunlight, water and nutrients in the soil. Mow, trim or spray the area immediately surrounding each seedling. If using a non-selective systemic spray, be aware that you must not allow the spray to touch the seedling. Removal of competitive vegetation will result in faster growth and higher survival rates. Mulching also assists in keeping unwanted vegetation in check.

Keep the critters away: While some trees, such as the Colorado Blue Spruce and Eastern Red Cedar are naturally deer resistant, others may be susceptible to deer and/or rabbit browsing. Methods to control browsing include fencing around the seedlings, tree shelters and animal repellants. Consider using the SunFlex™ Grow Tube System tree tubes or our Super Repeller product to help keep unwanted guests away! Visit www.chiefrivernursery.com for more product information and to place an order.

Summary

The quickest growth and highest survival rate of your seedlings directly corresponds to the amount of consideration, planning and effort put into planting and follow up care. While some people plant trees and then neglect them, those who use the proper methods experience the best results. If you have any questions regarding seedling storage, planting techniques or follow up care, please email us at info@chiefrivernursery.com or call us at 262-377-5330.