Conifer Tree Seedlings

Planting & Growing Guide

Introduction

We offer selected varieties of bare-root conifer seedlings for multiple uses such as lumber, fuel, shade, wildlife habitat, Christmas trees, reforestation, erosion control, and ornamental beauty. Tree crops are ideal for putting marginal land into production and planting them is an investment in the future to be enjoyed for generations. The zone range indicates the coldest and warmest zones tolerable to the tree. Our conifer seedling stock originates in Washington State except where otherwise noted. Carefully choose a planting location that provides maximum sunlight, good air circulation, and adequate drainage. Even an extra hour or two of shade a day can noticeably reduce growth and productivity. Choose a location where air circulation (wind and breezes) are not impeded by natural or man-made windbreaks. Planting in a location with good soil drainage is very important as poorly drained soil will stunt and may even kill trees by suffocating their root systems or harboring anaerobic soil pathogens. To test for adequate drainage, fill the planting hole with water and allow it to drain. Repeat. The maximum length of time it should take for all the water to drain out each time is 12–14 hours. A soil analysis is also recommended to determine any soil deficiencies, but this can be delayed until the tree has begun to establish itself. A gradual application of proper soil amendments will suffice if proper sunlight and drainage are available from the start. However, in the long term, calcium, magnesium, phosphorus and potassium along with sufficient nitrogen will significantly enhance tree health and quality.

Heeling In

When your Bare Root stock arrives, open the plastic bags immediately. It is best to plant right away, within a week of delivery. If you cannot plant right away, you may "heel in" the plants to protect them and keep them alive (but still dormant) until planting in the permanent spot.

To heel in Bare Root plants *outside*, pick a location that is shielded from wind. Dig a trench about twice as deep as the roots are long, with one side of the trench sloping at a 45 degree angle. Place the plants, roots side down, so that the trunks/stems are supported by the sloping side. Cover the roots with soil or sand and gently tamp down to avoid air pockets. Periodically check the root area, keeping the soil moist.

To heel in Bare Root plants *inside* due to snow or frozen ground outside, you can store them in a cool place like a root cellar, basement, or garage. It's important choose a place where the temperature stays between *38 and 45 degrees F.* This is important so the plants neither suffer frost damage, nor break dormancy. Place the roots in a container with soil or sand and be sure to keep the root area moist.

Planting

When you receive your trees, they will be boxed securely with their roots wrapped in plastic and their limbs trimmed back (not fully pruned) to fit the package. First, inspect the bag and make sure that the media around the roots is moist. In the event that the media requires additional moisture, use a clean spray bottle to moisten it evenly. If you are not ready to plant upon arrival, your trees must be kept cool (35°F to 45°F degrees is optimum, but never allow the tree's roots to freeze), as warmth will stimulate untimely growth. It is essential that the young tree roots have plenty of time to become established before the tree begins its spring growth. The tree should be planted while in deep dormancy. The day before you plant, remove the bag and inspect the roots. Any roots that are not firm and plump should be trimmed back to healthy tissue, above any damage or withering. We also recommend soaking the roots overnight in a bucket of water, supporting the tree so that the roots are not bearing the weight. Proper planting begins with digging a hole that will house the tree roots. The tree's root system will reach out from the trunk at a distance at least equal to the leafy canopy above and, to a depth of 4' to 6', so it is very important that the soil around the tree be worked and amended in as large an area as possible. Loamy, friable soil will require little or no improvement, but if your soil is heavy in either clay or sand, then it will be necessary to add organic matter. Clay drains poorly and sand does not retain moisture and nutrients. The addition of organic material (well-aged, high quality composts or green manures) will loosen clay soils to allow for improved drainage and will also create an efficient substrate to retain moisture and nutrients in overly sandy soil.

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While recent studies indicate that over-fertilization can be detrimental, we recommend the addition of 15–20% organic matter to poor soils, as nothing is gained by planting in unamended clay or sand. The planting hole should be no larger than is required to comfortably house the roots, but the roots should never be trimmed to fit the planting hole. Provide a solid, compressed "soil cone" at the bottom of the hole that will support the root system and prevent it from being crushed or broken while backfilling the soil. Make sure that the sides of the hole have not been "glazed" while digging. If this has occurred, break through the "glaze," roughing up the soil with a trowel or hand-held cultivating fork. When placing your tree on the soil cone at the bottom of the hole, orient it toward the direction of the wind and sun. Backfill with the soil you dug from the hole, mixing in any organic amendment or minerals you have determined to be necessary. Lightly compact the backfill with your hand, adjusting the tree gently so that the backfill covers the dark trunk color line that represents the bare- root's original planting depth. Water the tree thoroughly and watch for settling. If undue settling occurs, elevate the tree very slightly to raise its height and release any subsoil air pockets. Staking may be necessary but should be done carefully. A young tree that struggles a little against the wind, without being blown over, develops tissue in its trunk that will strengthen the tree as it matures. Tightly staked trees that do not develop this tissue are at greater risk of wind damage as they grow older. Staking should provide emergency assistance to a young tree, but should not interfere with its natural capacity to resist wind.

To properly stake your tree, drive two sturdy poles deeply into the ground on opposite sides of the tree from each other. The two poles and the tree should demarcate a straight line directly into the prevailing wind. Using a plastic tie or cord attached securely to each pole, create a loose harness that will allow the tree sufficient movement in the wind at least a few inches in all directions. If rain is not timely, then occasional watering will be necessary. Over watering can kill young trees.

Moist, workable soil is sufficient; soggy soil is dangerous and often fatal. As the tree matures, you will want to water deeply but infrequently, if at all.

Fertilization

Nitrogen fertilizers should be applied only after the first year, and preferably on the soil surface in a circular area that matches the overhead canopy growth. High quality composts are our recommendation as they are naturally balanced blends of nutrients and minerals. Natural kelp compounds are a great addition to fertilization regimen, whether added to irrigation water or used as a foliar spray. Avoid synthetic fertilizers as these can destroy many of the naturally occurring beneficial soil organisms that nurture healthy root systems. Synthetic fertilizers also tend to produce overly lush and unnatural top growth that attracts common insect pests and micro-pathogens.

Dormant Nursery Stock Limited Replacement Guarantee

We guarantee that our product(s) will arrive in good, viable condition. If your dormant bare-root stock (including potted fig and pomegranate), kiwi, grape, artichoke, asparagus, horseradish, rhubarb, or (straw/rasp/black/blue/boysen)berry does not leaf out, contact our Customer Service Department *on or before June 1st* and return the plant for inspection. We will issue you a credit for the price you paid for that plant (excluding freight) provided it does not show damage (rodent, mechanical, etc.) or root rot. This credit is redeemable toward the purchase of any other bare-root item of your choice the following year (Note: we reserve the right to not issue credit for replacement of already replaced items.) **This limited replacement guarantee does not apply to flower bulbs, citrus trees, potato seeds, olive trees, garlic, native plants, or conifer seedlings.**

Limitation of Remedy

We warrant to the extent of the purchase price only that the seeds or plants sold hereunder are as described on the label within recognized tolerances. No other warranty is given, expressed or implied, of (1) the merchantability or fitness of the seeds or plants for any particular purpose, or (2) against loss due to any cause. We cannot accept any responsibility for the many uncontrollable growing and climatic conditions (soil preparation, fertilization, weed and pest control, temperature control, irrigation…etc.) that must be met to insure the success of your crop(s) or plants.

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