

"Green Side Up": How to Plant Conifer Seedlings and Transplants

The "Green Side Up" seems obvious, and is meant as a joke, although more than once here on the tree farm, I have had trees planted upside down, with the roots sticking out of the ground. This has primarily been done when using a "pocket-type" tree planter, which actually puts the tree in the ground for you. If the tree is placed in the pocket upside down, the roots end up sticking out of the ground.

The most important thing in planting conifer seedlings and transplants is to have the roots going straight down into the ground without being curled up in the bottom of the hole. The ground also needs to be tightly packed around the roots to keep the air from drying them out. This can be accomplished in many different ways.

If planting small seedlings, and the quantity is not too great, you can use a shovel, or a planting bar to make the hole. Again, the important thing is to have the roots going straight down, and not curled up in the bottom of the hole. It is fine to cut the roots off to the depth of the hole to prevent them from curling up in the bottom of the hole. The roots will re-grow rapidly after planting. We commonly trim the roots to 9 or 10 inches to prevent "J-rooting". If the roots are "J-rooted", the tree will be stunted. To this end, it is helpful to push the tree down in the hole beyond the planting depth, and then pull it back up to the proper depth, causing the roots to go straight down in the hole. When using a planting bar, you can then plunge the planting bar in the ground a couple more times, 3 inches and 6 inches away from the original hole to help loosen the soil and make it easier to pack it around the seedling. It is important to pack the soil tightly, while holding the seedling in a straight position.

If planting larger seedlings or transplants, it is desirable to use an auger to make the planting hole. We typically use a 6" auger, although even an 8" auger would work quite nicely. These can often be rented locally, or can be purchased from our "Grower Supply" catalog. The advantage of the auger should be obvious: it creates a larger hole to help get the roots going straight down in the soil. After making the hole, the tree can be inserted in the hole and the soil pushed back into the hole, helping to take the roots straight down into the hole. It is still important to trim the roots to the planting depth to prevent "J-rooting". We then use a planting bar to loosen the surrounding soil and help to pack it tightly, same as above, while holding the seedling in a straight position.

Additional questions? Wahmhoff Farms Nursery 1-888-MI-TREES

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~ **Site Preparation:** Spend time prior to planting reducing or removing grass, weeds and brush. Your trees will get off to a better start. If not controlled, weeds and brush can reduce the ability of the trees to survive and thrive.

~ **Determine spacing and quantity of trees needed:** This can be determined based on your intended purpose.

Christmas Trees or Ornaments: We typically plant on a 6x6 spacing, which requires 1210 trees per planted acre. Some growers use spacing as close as 5x5 for certain varieties intended to be harvested at a smaller size. This requires about 1740 trees per planted acre. These numbers do not include access roads or borders

Windbreaks: Plant 6-8 feet apart in one row or plant two or three rows spaced diagonally 10-12 feet apart. Divide linear feet to determine quantity needed.

Reforestation: Plant 8-10 feet apart, which will require 500-700 trees per acre.

~ **Determining tree variety and size for planting:** This is based on several factors, starting with your intended purpose. Certain varieties are better for windbreaks and reforestation, while others are more popular as Christmas trees or ornaments. You also must consider soil type, sun conditions, air and water drainage and other locational factors and match them with the type of tree that thrives under those conditions.

Larger seedlings and transplants typically will outperform the smaller plants, but may be more challenging to plant properly. A good rule of thumb is to plant the largest stock that you can reasonably handle on your site with your equipment.

~ **Planting timing:** Your order acknowledgement will show your scheduled ship date. If it says "3/1", this indicates ASAP in the spring. If it says "1/1", this indicates that we have no ship date scheduled for you. Please call us to schedule a preferred delivery time. If you have scheduled a ship date, but are unable to plant due to weather conditions or other situations, please notify us as soon as you can so we can delay their shipment. Try to schedule delivery so that you can plant your trees as soon as possible after their arrival. If you can't start planting after the trees arrive, store them in a cooler or other cool area, away from sun and wind. Open slightly and make sure the trees are slightly damp.

~ **Proper planting:** Plant trees as soon as possible after their arrival. Trees can be planted by hand using a heavy spade or spud, using an auger, or can be machine planted. In any case, make sure that the roots are straight down in the ground, not curled up in the hole. Roots may be pruned prior to planting to prevent "J-rooting". Make sure the roots are deeply secured in the ground and the soil around the tree is firmly packed.

~ **Site Maintenance:** Weed control after planting is important, whether using herbicides or mowing or both. Weeds will be competing with your trees for soil nutrients, moisture, and fertilizer, and can affect their survival and growth if not controlled. Good weed control will provide more sunlight, and less insect and disease problems. It also makes shearing, spraying and harvesting easier and more efficient. Contact us for suggestions, or see your local county extension agent or chemical dealer for options.

~ **Growth Rate and Harvest Time:** The more care (fertilizer, weed and pest control, water, proper pruning) the trees receive, the sooner they'll grow to a harvestable size. Natural occurrences (late frost, dry conditions, disease) can all affect growth rate, as well as the type of tree you select and your specific planting site.