

# Gardening the Forest

## PLANTING TREE SEEDLINGS

SO EASY—EVEN YOUR KIDS CAN DO IT!

BY DYKE VAN ETTEN WILLIAMS



### WHAT YOU GET

Seedlings come to you generally in one of three formats—bare root, jelly-rolled or containerized. Each supplier has its own special way of growing and packing, so ask when you order. Each format has its advantages:

**Bare Root:** You get the tree with roots bare rather than in a dirt plug. Usually there are a lot in one large plastic bag to reduce drying out. This format enables quite large seedlings and even larger “transplants” to be shipped since you are not also shipping the weight of attached dirt. These seedlings must be stored in a cool, dark place, with a small amount of water added to the bag if stored for more than a few days. Bare root stock has been kept for up to 5-6 weeks in a cooler, but I don’t recommend it and they were in rough shape when finally planted. It is best to get them in the ground in the first two weeks.

**Jelly-Rolled:** Usually somewhat smaller seedlings and root systems, with the roots still in the small dirt plug they grew in. About 15 seedlings are then wrapped

(“jelly-rolled”) together in plastic in one bundle. These are easy to carry around when hand-planting, easy to store and keep moist and dark. These should also be planted as soon as possible.

**Containerized:** Here the roots and dirt plug are still in the container in which it grew—often plastic foam blocks with inset holes for the dirt and many seedlings per “container”. These are often the smallest sized seedlings, but also very economical. They are easy to ship, and often there is a refund for returned containers. Since the seedlings are still “planted” in the container, they can actually be put outdoors in moderate sun, kept watered and thus stored for much longer than the two formats above. Simply shake the seedling out of the container when ready and plant right away. Don’t let the plugs dry out at all. Caution—available moisture is still the biggest key to seedling success, so planting in July or August and not watering or getting help from the rain means few such seedlings will survive.

**“Transplants”:** Some suppliers will grow

seedlings for several years, dig them up, transplant them elsewhere, let them grow some more, dig them up again and sell them to you as large seedlings in bare root format. Some can be over three feet long from tree top to root end. Because they have been transplanted once, and are so much larger, their survival rate in the bush is extraordinary. These are my personal favorites, regardless of cost. We probably lose only 10% of our transplants. Regular large seedlings might average 30-40% mortality, and really small ones can be much higher than that, depending mostly on rain. Rates for other planters on other sites will vary widely. But I really like transplants! You must use a large planting bar for these and the roots must go in the hole straight down and stay straight down.



Note the little "tower" of new growth just beginning on top. This is a "trans-plant" that has been in the ground for just a year.

#### OTHER TIPS

The ideal planting time is in May while the soil is still quite wet from snow melt, runoff and spring rains. Follow the advice above, avoiding moisture excesses, planting only in mineral soil and "releasing" the area around your chosen tree site with clippers. Each seedling requires a straight-down hole. For smaller seedlings (plugs in jelly-rolls or containers), people plant modest numbers with a sharp stick, a garden trowel, a narrow blade garden spade, a shovel and even with a hardwood shovel or rake handle with one end sharpened. Smaller planting bars with a 2-3" wide blade and weighing about six pounds work well too. Make as small a hole as possible, straight down, deep enough so the whole root package can go in. Trees with dirt plugs go in just to the level of the plug's top. There must be NO air pocket left under or around the roots

or plug or the tree will die. Pack the rest of the hole with dirt somehow (see "planting bars" below). I often step lightly with my heel next to the plug to leave a slight "dirt dent" that water can collect in.

**Planting Bars:** These are hard to find but great in getting the job done. Called "dibbles" in some parts of the world, logging and reforestation firms sometimes carry them. You can often borrow one for a week if you tap the right local outdoor agency or maintenance department. Large planting bars can have blades up to 4" wide and weigh up to nine pounds or so. Bars dig through duff and deep into mineral soil, making them the only way to plant numbers of bare root seedlings and transplant seedlings. Even then some rocky locations require as many as 10 or more bar hits to get the hole big enough and deep enough. Those very long bare

roots MUST go straight down—curve them back up and you lose the tree.

Place ALL the roots in the hole until they will just be buried by incoming dirt. Make sure they haven't dried out at all. Many people then make a second hole with the planting bar just a few inches from the first and lean the bar sideways

**QUICK!**  
**ORDER YOUR SEEDLINGS**  
 Imagine the difference  
**100,000 seedlings a year**  
 would make! See page 4  
 for instructions on  
 how to order.



A team replanting a burn area. The great lady on the right is the one who said “but I have grandchildren....”

toward the seedling now in the hole. If it works right, the bar pushes dirt sideways and completely fills the tree hole so no air pockets survive. We tend toward repacking the hole by hand (which means someone sitting on the ground) and feel that the extra TLC is certainly noted by the seedlings. Who knows? One very young planter last spring named each seedling as she put it in the ground and then gave it a pep talk about growing and thriving as she packed it tight.

Don't expect miracles from your seedlings in the first few years of growth. They will hardly grow at all the first summer due to planting shock. Then they'll grow a few inches a year. But by year four or five they might add a foot a year, and by year 10 upwards of two feet a year.

Dare I say one last time—water is the key! If at all possible, water new seedlings regularly and often (daily in absence of rain) and for as far into the summer as you can stand it. Ask or hire kids to tote buckets from the lake, too. During the “exceptional drought” conditions the last few summers, we used garden sprinklers to water everything we could reach (even the older seedlings) and saved almost everything. It seemed silly at the time, but it worked.

This spring I talked with a beautiful 80-something woman who, along with 400 other volunteers, was planting white pines after a devastating wildfire. She raised the inevitable issue—why on earth would somebody her age bother to plant trees? Then she said: “Well, I won't see these grown, but I do have these grandchildren....” Hope you will plant with and for your grandchildren, too!

**NEXT MONTH: How to Plant Tree Seeds, Potted Trees & Transplanting** Dyke will give details on how to plant trees using seeds or potted tree stock and how to transplant trees already growing. In the July issue he will detail after-planting tree care—“releasing” trees being crowded, thinning, pruning white pines to avoid blister rust, “limbing up”, avoiding damage from deer and more.

**SUGGESTED READING**

- *The Best Time to Plant a Tree Was 20 Years Ago. The Second Best Time is Now.* <http://cfc.cfans.umn.edu/links/handbook.pdf>
- *A Guide To Tree Planting* [http://forestry.about.com/cs/treeplanting/a/plant\\_guide.htm](http://forestry.about.com/cs/treeplanting/a/plant_guide.htm)
- *Growing White Pines in Minnesota* <http://www.dnr.state.mn.us/fid/january98/01069804.html>
- Rajala, Jack: *Bringing Back The White Pine*

The definitive book on planting and caring for these wonderful trees. An article on Jack Rajala appears in the 2008 Spring edition of the Quetico Superior Foundation's newsletter *Wilderness News* and is reprinted on that web site ([www.queticosuperior.org](http://www.queticosuperior.org)).