

SEEDLING CARE AND PLANTING GUIDELINES

PROPER SEEDLING HANDLING, PLANTING, AND POST-PLANTING CARE IS THE SUREST WAY TO MAKE YOUR SEEDLING INVESTMENT PAY OFF. SURVIVAL AND GROWTH OF YOUR SEEDLINGS DEPENDS UPON PROPER HANDLING PRIOR TO PLANTING, USE OF CORRECT PLANTING METHODS AND AFTER-PLANTING CARE.

SEEDLING CARE AND HANDLING



- Transport seedlings carefully, avoiding rips or tears in packages, protecting them from exposure to wind or weather.
- Avoid stacking too high. Crushing may occur.
- Store seedlings in a cool, shaded area (34–36 degrees is ideal). Trees held in the upper 40's or higher for even a week may begin to develop storage mold or root diseases. If you must hold seedlings for two weeks or more before you can plant them, you may want to consider requesting that they

be frozen or at least held at a low temperature at the nursery or at a rented storage until shortly before planting.

- Protect seedlings from drying and water loss by minimizing exposure to sun and wind. Sprinkle with water occasionally if drying is apparent. Do not leave standing water in the bag or immerse the trees in water or mud. Roots must breathe and immersion could kill them.
- At the planting site, protect seedlings from direct sunlight and freezing temperatures. Use a covered vehicle, natural shade, or reflective cover. Do not use canvas or other non-reflective materials which may cause heat buildup.
- Keep seedling bags and boxes tightly sealed except while removing trees.
- If seedlings are frozen when you receive them, completely thaw them in a cool, shaded area. Do not expose them to direct sunlight or heat sources.
- Do not rip or tear roots from seedlings. If root pruning is necessary, use a sharp blade.

GROUND PREPARATION

The seedlings of many species will not survive and grow well if there is too much competition from other plants for light, water, and nutrients. Your site preparation should reduce or eliminate competing vegetation and leave the soil capable of supplying the maximum amount of water to the new seedlings.

- Remove all competing vegetation down to bare, mineral soil in a minimum area of one square foot for each seedling to be planted. (Seedling survival and growth will be greatly improved if you kill or remove competing vegetation, particularly grass, from the entire area before planting.)
- Remove all debris and partially rotted forest floor material from planting area.
- Cultivation is beneficial prior to planting, but soil must be settled and firm at planting time.
- Permanently drain excessive ground water or avoid planting in poorly drained areas.

PLANTING GUIDELINES

- Select a planting tool slightly wider and deeper than the root system of the largest seedlings you plan to plant.
- Open a hole deep enough for the root system to be planted straight without bending, twisting, or squashing the roots.
- Take one tree at a time from the seedling bag, taking care that the remaining seedlings are not exposed to air.

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Seedling Care and Planting Guidelines, continued

- Place the seedling in the planting hole at a depth approximately ½” deeper than the nursery soil line. A color change on the stem will indicate the original soil line.
- While holding the seedling in the correct position and at the right depth, bring loose, moist soil in around the root system and pack it firmly so that no air pockets are left around the roots.

PLANTING IN THE RIGHT SEASON

It is best to plant seedlings when they are at their highest stress hardiness to avoid problems like drought and transplant shock. This window of hardiness for seedlings is generally December through March.

Some containerized seedlings can be prepared at the nursery for fall planting with advance notice. Planting in the early fall can give your seedlings extra time for root growth and a head-start on the next growing season. However, this method requires careful timing of planting when air temperature is cool and there is good soil moisture, and requires planting with minimal storage.

YOU SHOULD NOT PLANT SEEDLINGS WHEN:

- Ground is frozen such that it is difficult to close the planting hole without leaving air pockets around roots.
- Air temperatures are below 32 degrees F, causing roots to freeze before planting.
- Upper soil layers are dry, so that seedling roots are surrounded by dry soil.
- Climatic conditions may cause rapid drying of seedlings. Including: air temperatures are above 70 degrees F, wind speeds are above 15–20 miles per hour, relative humidity is below 40 percent. Seedlings can be killed by very short exposures to conditions like these.
- Even if it’s not as warm as 70 degrees F, on low humidity windy days you may want to place a wetted burlap sack into the planting bag with the seedlings to keep their roots moist.

CARE AFTER PLANTING

The first two years after planting are critical for young trees. Good survival and growth are strongly dependent on sufficient soil moisture and protection from damaging agents.

- Keep your planting area free of weeds and grasses by shallow cultivation or herbicide use in order to maximize moisture and nutrient availability for your seedlings.
CAUTION: If you use herbicides or other chemicals, follow label directions exactly or contact your Cooperative Extension Agent for application rates and methods. Note that young tree seedlings are very sensitive to damage if you spray over them with some herbicide products.
- If irrigation is available, water can be applied during spring and summer periods or droughty conditions. Normally the seedlings can survive without irrigation.
- Keep livestock and poultry out of planting areas. If deer or elk browse is significant, you may want to install tree protectors around your seedlings, fencing, or repellent products. Contact your Cooperative Extension Agent for the latest recommendations.
- Examine trees often for damage from disease or rodents. Removal of grass and weeds around the trees can reduce the risk of rodent damage. If disease is present, contact your Cooperative Extension Agent for recommendations for control.
- Fertilizer is not recommended the first year after planting as it may promote excessive top growth without supporting root development, which may lead to abnormal growth or mortality.
- Thereafter, if fertilizer is desirable, a slow release, balanced fertilizer blend is recommended. Consult your local garden supplier for information.