

PLANTING GUIDE FOR BARERoot SEEDLINGS AND TRANSPLANTS

Call MISS DIG prior to digging near underground utility lines. It's the Law! The number is 800-482-7171 or 811, 24 hours a day, 7 days a week.

SITE PREPARATION:

Site preparation is needed to reduce competition, assure tree survival or stabilize the planting area. This can be accomplished through mechanical treatment or herbicide treatment.

Mechanical Treatment – This will provide initial control of weed competition and needs to be repeated throughout the growing season for two to three years to provide adequate control of competition.

1. Light, existing vegetative cover (moss, open sand, light June grass, etc.) – No ground preparation is necessary.
2. Medium, existing vegetative cover (medium June grass, light quackgrass and run-out hay fields) – Remove the sod layer within a three feet area around the tree site with a plow or other tillage means prior to planting and cultivate during the growing season to control vegetation.
3. Heavy, existing vegetative cover (heavy June grass, heavy quackgrass, good hay fields and sweetfern) – Kill and/or remove the sod within a three feet area around the tree site by plowing or other tillage means in the fall before planting and cultivate during the growing season to control vegetation.

Herbicide Treatment – This will provide initial control of weed competition but repeat applications may be needed to provide adequate control of competing vegetation for two to three years after planting.

1. Spot or band treat an area a minimum of three feet around the tree site. Use only herbicides labeled for the species being planted and the intended use of the trees.
2. The preferred timing for herbicide treatment is prior to the planting of the trees. There is more risk of damaging trees and fewer herbicides are available for treatment after the trees have been planted.
3. When heavy vegetative cover is present, it needs to be killed prior to planting in order to provide higher tree survival.
4. Follow label directions and contact the local Soil Conservation Service or Cooperative Extension Service offices for herbicide information.

Cover crops, between rows, may be needed to prevent wind erosion and sandblasting of trees on sandy soils or to prevent water erosion on steep slopes.

CARE OF SEEDLINGS

1. Seedlings should be packed and shipped in wet moss or other medium, kept cool (less than 35 degrees F.) and kept moist through the planting process. Exposure to sun and wind can kill a seedling in less than 30 seconds.
2. Plant seedlings as soon as possible after they are received keeping roots moist throughout the planting process.

3. Store seedlings in a cool, moist, shaded location up to 7 days. To prevent poor circulation of air and heating, do not stack bundles in layers more than two bundles high.
4. If planting is delayed longer than seven days after receipt of the seedlings, heel the seedlings in a shaded area and keep them moist. To heel in seedlings: Dig a trench in the soil, place the seedlings in the trench and cover the roots with soil. Refer to Figure 3.
5. Avoid dipping roots into water, as moisture retaining soil particles will be washed off. Mist seedlings to keep them moist.
6. Water absorbent/retention dip may help conserve moisture on seedling roots in dry weather.

PLANTING

1. Trees may be planted with a tree planting machine or by hand using a planting bar, shovel, or other tool. Refer to Figures 1 and 2. Plant trees in the middle of the prepared site area to ensure maximum distance from competing vegetation.
2. Trees should be planted in a vertical position with the root collars approximately one inch below the soil surface to ensure adequate coverage of the roots with soil. Roots may be pruned to eight inches in length from the root collar. Refer to Figure 4.
3. The trench or hole should be deep and wide enough to permit the roots to be spread out in a natural uncurled position. Avoid "J" rooting or "L" rooting. Refer to Figure 4.
4. Soil around the seedlings should be packed firmly to eliminate all air pockets.
5. Planting should be done in the spring as soon as possible after the frost is out of the ground. Fall planting is acceptable on light soils (sands, loamy sands, or sandy loams) after seedling buds are dormant and until frost or snow interferes.
6. Tiny seedlings may be planted in nursery bed for closer observation and to increase in size until transplanted. Plant seedlings 12 inches apart, control weed competition and provide water as needed. Transplant seedlings to permanent location after 2-3 years in nursery bed. When transplanting, dig as much root area as possible for each seedling and leave the soil attached to the roots.

MAINTENANCE

1. Check survival the first and second year and replant where survival is poor.
2. Control competing vegetation, where needed, during the first 2 or 3 years by mowing between rows, cultivating, mulching, and/or herbicide treatment.
3. Exclude livestock from all plantings and protect from wild animals by using shelters, wire, guards, repellants, or fencing.
4. Maintain firebreaks in large plantation plantings.

(From USDA SCS E. Lansing, MI, Jan. 1991, J.S. 612 & 249E)

(LCD retyped and edited February 2009)

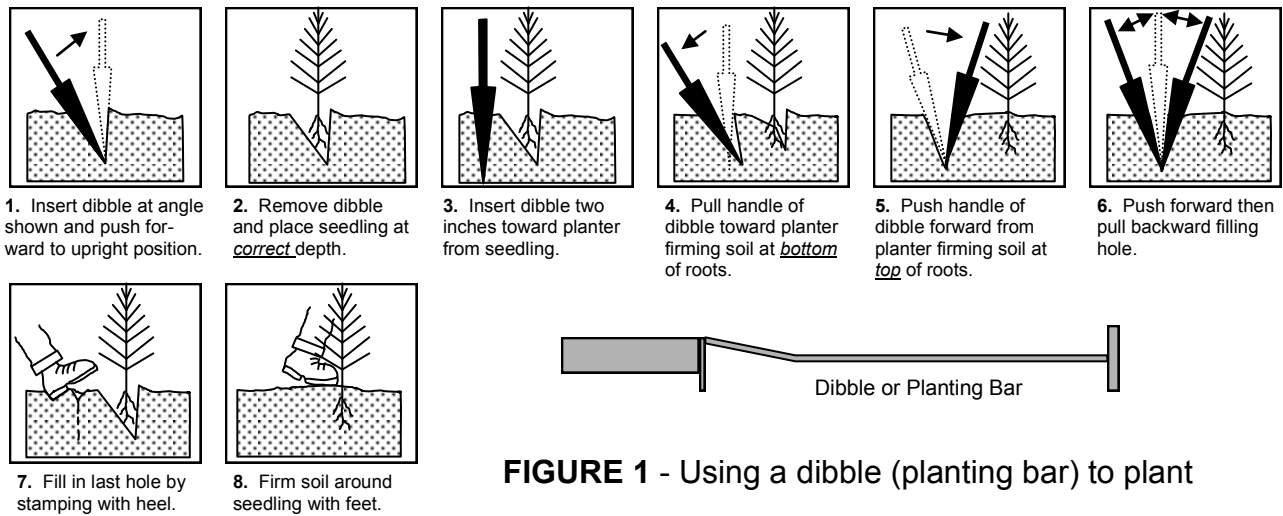


FIGURE 1 - Using a dibble (planting bar) to plant

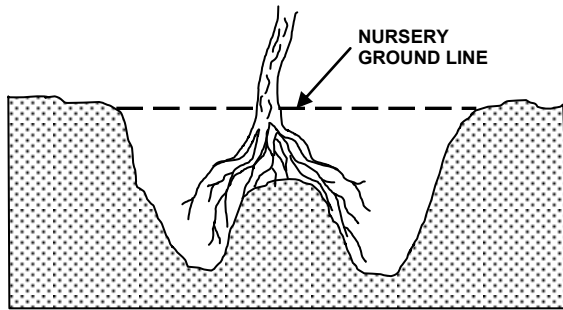


FIGURE 2 - An example of a hole and shovel method of planting seedlings.

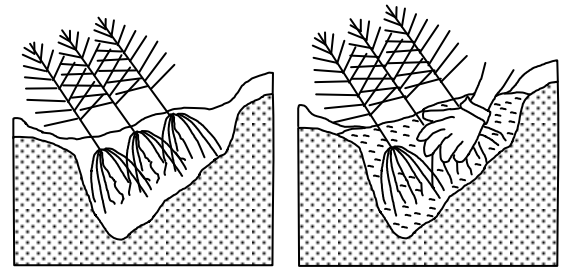


FIGURE 3 - One method of long term tree storage is the "heeling-in" technique. Roots must be packed tightly in soil and kept moist. The heel-in trench must be shaded and protected from wind.

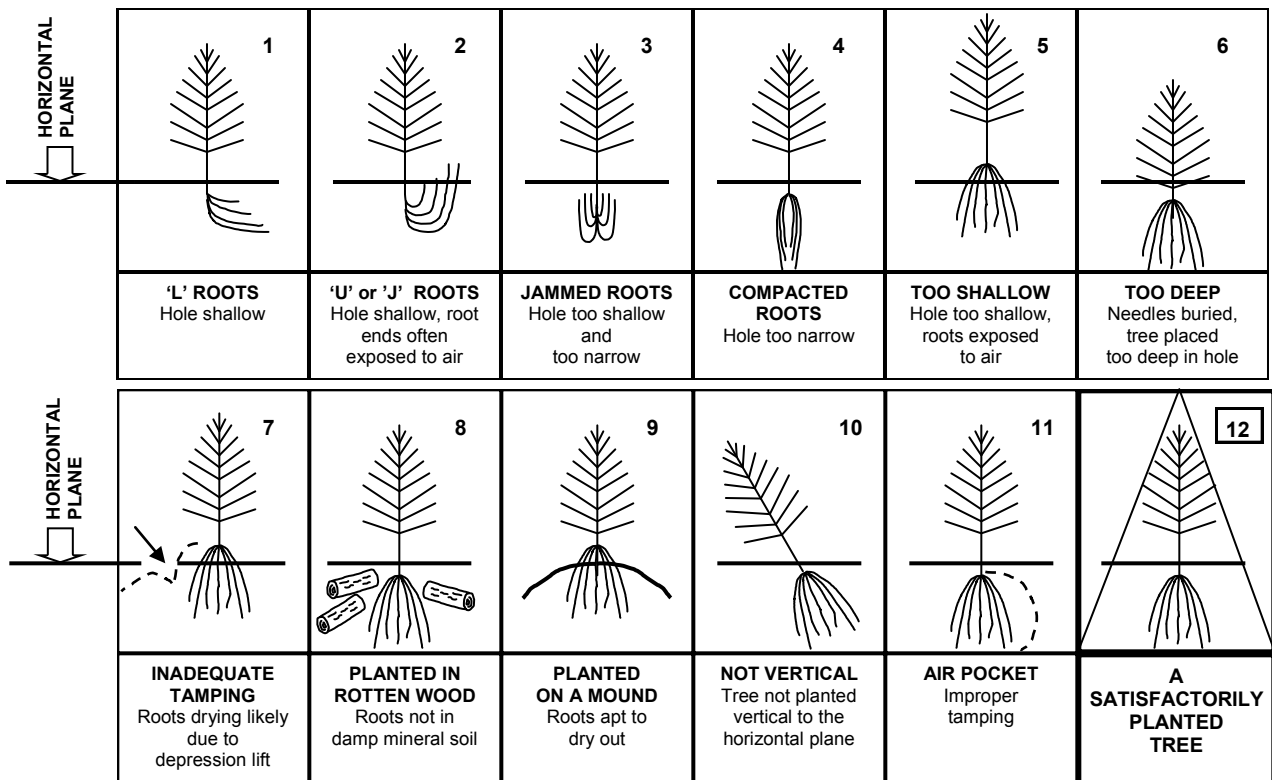


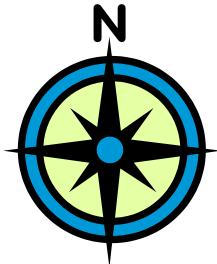
FIGURE 4 - Drawings 1 through 11 illustrate various ways trees should *not* be planted. The ideal planting is shown in drawing 12.

ADDRESS _____ PHONE _____

COUNTY _____ TYPE OF PLANTING _____

PLANTING DATE _____ SOIL TYPE _____ WINDBREAK GROUP _____

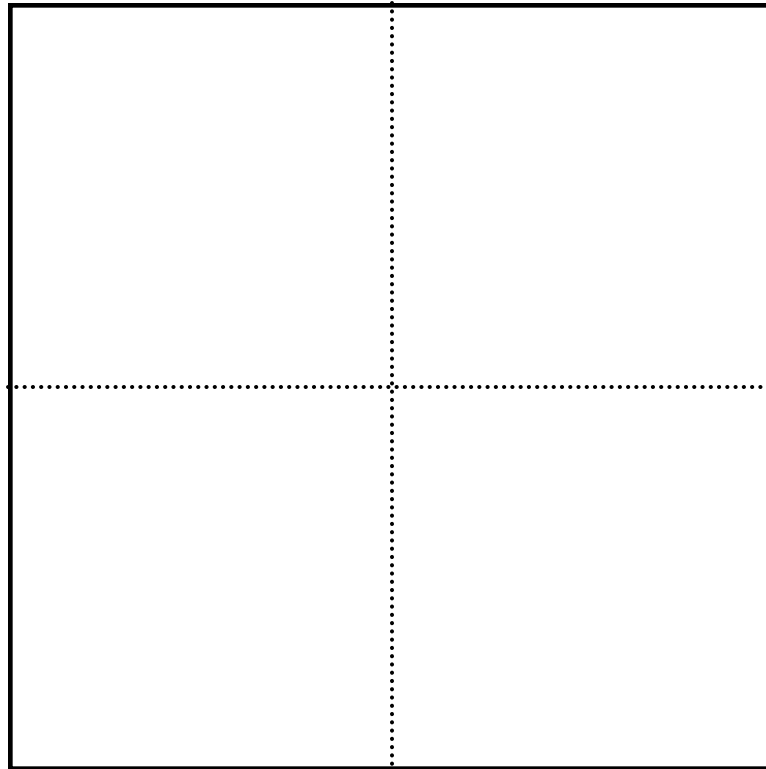
SITE PREPARATION _____



SCALE: _____

LOCATION: TOWNSHIP

SECTION



SKETCH OF PLANTING LAYOUT

ROW	SPECIES	SPACING IN ROWS	SPACING BETWEEN ROWS	ROW LENGTH	ACRES OF PLANTING	TOTAL NUMBER OF TREES NEEDED

INDICATE AS PLANTED IN RED

MAINTENANCE _____