

Tree Sweating - When Is It Needed?

Now that spring is here, it is time to think about sweating - your trees, that is. Some trees that you ordered for planting this spring may be in a group which has hard, dormant buds. Certain species, following winter in refrigerated storage, have a tendency to remain dormant, especially when soils are wet and cool. These species which have been listed by regional conservation nurseries as benefiting from sweating, under certain conditions include:

- Green ash
- Bur oak
- Hackberry
- Chokecherry
- Juneberry
- Amur maple
- Ussurian (Harbin) pear
- Skunkbush sumac
- Birch
- Mountain ash
- Hawthorns

Trees and shrubs that remain dormant for most or all of the first growing season will probably die before the next growing season. If you have had problems in past years with getting some of these species to leaf out, consider the technique of sweating. The goal of sweating is to increase the humidity and temperature around the stock enough to force the buds to swell. Sweating nursery stock should be done indoors and out of direct sunlight. Lay a sheet of plastic on the floor and cover with wet shingle tow or sphagnum moss. Place the seedlings on top of the wet material and cover with additional moss or shingle tow. Repeat layers of trees and moisture holding material as needed. Cover with plastic and maintain temperatures of 50 to 70 degrees F. Bud swell should begin in 5 to 10 days in this warm, moist environment. Check the trees daily to see that the covering is kept moist, and that no mold has developed. If mold develops, rinse off with clear water and shake off excess moisture.

Stock can be planted outside when temperatures are 50 to 70 degrees F at the planting site. Do not sweat stock to bud break, and then plant in sub-freezing temperatures or extremely dry soil conditions. Once the buds have been forced, handle trees carefully, and plant as soon as possible. Trees should be watered if the ground is dry.

For additional tips, see <http://www.mt.nrcs.usda.gov/technical/ecs/plants/technotes/pmtechnoteMT51.html>.

Mike Knudson, Forester

Trees and Drought

In years of less than normal rainfall, irrigation is beneficial to maintain good health and vigor of trees. In 2006, rainfall was less than average. Undoubtedly, quite a few trees did not survive. There is a possibility that 2007 will be another dry year. Put together a plan on how to protect your trees.

1) Select trees that have better drought tolerance.

Among the tall tree species, generally trees with tap roots are more tolerant of dry conditions. The tap root allows them to draw on deeper moisture reserves. Some of the drought-

tolerant species are bur oak, hawthorn, ponderosa pine, and Rocky Mountain juniper. Shrubs that are more resistant to drought include common lilac, silver buffaloberry, caragana, silverberry and the sumacs.



Compare the mid-summer drought effects of tillage versus sod on this row of green ash. Competition increases moisture stress.

2) Manage available water resources to get trees off to a good start. Watering trees immediately after planting has increased survival as much as 25 percent in test plantings. Newly planted seedlings will benefit from five gallons of water per week during the growing season. Residential trees may also benefit from extra water received from roof runoff. Consider redirecting downspouts toward your trees. Infrequent irrigation tends to promote deep, extensive root systems that can access more water when the soil begins to dry. Gradually drying the soil in early to mid-summer will encourage some trees to adjust their internal cell structure, so more severe dryness will be less of a shock.

3) Consider the use of wood chips or black fabric to aid in weed control and moisture conservation. For more information on mulch, see the [Synthetic Mulch Management Fact Sheet](#). For information on trees and water, see the [Tree Water Management Fact Sheet](#).

Mike Knudson, Forester



Fabric can be an effective tool to reduce weeds and conserve moisture.