

Tree Sweating

Why Do We Do It?

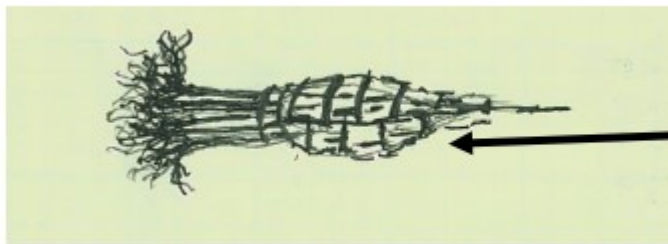
The shipment of bare-root trees has arrived fully dormant— are they ready to be planted in the landscape or installed in the gravel bed? Or, are they in such a deep state of rest that it could be days or weeks before they finally leaf out...if they leaf out at all?

Bare-root trees and shrubs are field-dug in the autumn, placed in jacketed cool storage facilities or “tree refrigerators” at around 32° F and 95% humidity for most of the winter and then shipped out, still in some state of winter rest. Some species will quickly begin active growth with no prompting when planted while others need to be gently awakened with a good “sweat.” “Sweating” those trees, shrubs and vines that are in deep states

of rest is a generations-old, reliable tree nursery practice that has very little (if any) research evidence to explain the process and why it works... but it works. It is a recipe that uses three ingredients: 1) Warmth 2) Humidity and 3) Time.

Get Ready to Sweat

Separate species and bundle in bunches. Do not mix species in a bundle; different species may require different amounts of time. Next, capture some warmth— place the plants on the bare ground or floor of a hoop house, barn or garage. If possible, temperatures should be supplemented if they are not in the 45-70°F range in the built structures. Warmth radiating from the earth is generally enough; direct sunlight is too much and will likely damage the plants, so keep the bundles shaded.



Bundle the trees or shrubs together by species. For ease of handling, bind the stems/branches together with twine.

Sources

- 1) <http://www.dot.state.mn.us/environment/pdf/2014LandscapeInspectionManual.pdf>
- 2) <https://nursery-crop-extension.ca.uky.edu/content/sweating-nursery-stock-break-dormancy>



Tree Sweating, cont.

Which Species Need to Sweat?

There's some controversy here. Depending on the consulted resource there may be 16 to almost 40 different trees, shrubs or vines that either require or respond well to a good sweat.

Recommended Shrubs and Vines

Trumpet Vines (Campsis)
Variegated Dogwoods (Cornus)
Cotoneaster (Cotoneaster)
Potentilla (Potentilla)
Roses (Rosa) (*Note: Multiflora rose is invasive in MN. Remove immediately.)

Recommended Tree Species

Maples (Acer) (Note: Amur maple and Norway maple are invasive in MN. Remove immediately.)
Serviceberry (Amelanchier)
Birches (esp. Betula nigra)
Musclewood (Carpinus)
Hickory (Carya)
Hackberry (Celtis)
Eastern Redbud (Cercis)
Pagoda Dogwood (Cornus)

Hawthorn (Crataegus)
Beech (Fagus)
Ash (Fraxinus)
Honeylocust (Gleditsia)
Crab/Apple (Malus)
Mulberry (Morus) (Note: White mulberry is invasive in MN. Remove immediately.)
Black Gum (Nyssa)
Ironwood (Ostrya)
Plum (Prunus)
*Ussurian Pear (Prunus)
Chokecherry (Prunus)
White Oak group (Quercus)
Skunkbush Sumac (Rhus)
Willow (Salix) European
Mountain-ash (Sorbus) Lilac (Syringa)
Bald Cypress (Taxodium) Linden (Tilia)
Elm (Ulmus) (Note: Siberian elm is invasive in MN. Remove immediately.)

Always Beware Invasive Species

Be careful with checking species and cultivars. Check with your state regulatory agency to determine whether they are listed as invasive in your state or area.

Gary Johnson and Ashley Reichard, July 2020

Sources

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