

Winter Protection of Plant Material



Trees and Shrubs

The main objectives in winter protection are to minimize temperature fluctuation, guard against or slow down extreme desiccation (loss of water), reduce the mechanical breakdown of plant material, and minimize the effects of low temperatures.

Mulching

Extreme fluctuations of temperature can create serious problems for our plant materials. Mulches, such as ground corn cobs, peat moss, oak leaves, pine needles, wood chips or straw, should be piled six inches high around the shrubs just after the soil is frozen. These materials will insulate the soil so that it will not frequently freeze and thaw throughout the winter and heave plants out of the soil. In addition, these mulches will help conserve moisture and keep the soil cooler later into the spring, so plants will not break dormancy too soon.

Water Loss

With the soil frozen, we must try to cut down on the effects of drying winds, so plants will not dry out or winter burn. This can be accomplished by watering the plants just before the soil freezes, screening the plants with a hedge, building or burlap windbreak on the leeward side of the plants, or spraying with anti-desiccants which are plastic emulsion sprays that reduce water loss when applied to the leaves of evergreen plants.

Mechanical Protection

Of all our plant materials, trees and shrubs in the foundation planting area suffer most from mechanical damage. Everyone has experienced snow falling off the roof and breaking the branches of trees and shrubs. Protection may be necessary to prevent this type of damage. This protection may be simply tying the plants together, building a structure of 2x4's around the plant material, a simple open structure nailing snow fence across the top, or putting a bushel basket over smaller shrubs. Further, simply brushing snow off evergreens will markedly decrease the adverse effects of heavy snow.

Low Temperatures

If one knows some shrubs that are tender, i.e., susceptible to damage by low temperatures during the winter, wrap the shrubs tops with straw and/or burlap. This simple protection will bring many flower

buds through the spring enjoyment. One precaution—don't tie black or clear plastic over the tops of shrubs. If you want to see what kind of affect this will have, wrap your hand in a plastic bag on a sunny day and see how hot it gets inside. This treatment will do nothing more than burn plant material and, in fact, encourage drastic temperature fluctuation.

Roses

Roses must be protected from the rigors of our hard Michigan winters. Roses are not only



damaged by low, cold temperatures but also temperature fluctuation can cause the plants to make false starts and, more importantly, cause the plants to heave out of the soil. Winter protection should

be started just after the first hard frost. This is the time to mound the soil up about 8-10 inches around the crown of the plants. If not enough soil is present, consider using mulches, such as wood chips, peat moss, rotted manures, cocoa shells or buckwheat hulls. If temperatures regularly dip lower than -10 degrees F, additional protection should be added, such as straw or peat moss around the exposed soil area and the tops of the plants. Just prior to the straw or peat moss application, all branches should be tied together to insure the tops will not break apart under the weight of heavy snows. Pruning? No! Roses should not be pruned until spring. Late fall pruning in most cases will result in more severe winterkill. The one exception to fall pruning is if one uses Styrofoam cones to protect their plants. It is obvious that these rose bushes must be cut down to accommodate the styrofoam insulating cones. Don't remove any of the winter protection until the danger of frost has passed in the spring. If in past winters one has experienced damage to trees and shrubs, protect them as described previously. These precautions will insure a beautiful landscape next spring.

Would you like additional information?

Additional information is available on-line. Please see [MSU Extension-Oakland County's publications](#) as well as [MSU Extension's Bulletin Office](#) on campus.

Contact our [Plant & Pest Hotline](#) (248/858-0902) for assistance with plant identification, pests and diseases, weeds, trees and shrubs, lawn, flowers, fruits, vegetables, grasses and groundcovers, native plants, plant propagation, and many other gardening topics.