



Miniature and Dwarf Conifers in the Winter

Conifers are temperate climate plants that require a cold dormancy period. Most are hardy in Zone 6 and below and will do fine when planted in the garden here in St. Louis. Adding 2-3" of mulch after several hard freezes (below 25°) will help keep the soil temperature cold, reduce heaving, and conserve moisture – thus reducing winter stress on the plants. Typically, the time to add mulch will be some time in December. Check periodically and water when needed. Applying Wilt-Pruf anti-transpirant will reduce moisture loss and plant stress.

Conifers that have been planted into containers and troughs will need special care over the winter. Unlike tropicals which are brought indoors as houseplants, conifers should stay outside until late fall. As days become shorter and nighttime temperatures approach 25° to 35° the plants will gradually develop cold hardiness. Once the low temperatures start to fall below 20°, their roots will require further protection. Your goal is to keep their surrounding temperatures above 15° (to protect their roots) and below 40° (to provide cold dormancy). Conifers need **only 40 days below 40°** to acquire the requisite hours of cold dormancy. If temperatures then increase, they will *break* dormancy and begin growing, even in the dark! A subsequent *return* to cold weather will kill new growth and buds! So your goal in winter is to keep your containerized plants in a consistent state of dormancy (even with our unpredictable St. Louis weather) until the spring arrives!

One solution which is often recommended is to bury your containerized conifers in the ground. In St. Louis, however, we don't have the consistent snow cover to keep the plants insulated from extremes of temperature. As an alternative, place them out of direct sunlight in an area protected from wind. Cover them with mulch (oak leaves, pine needles or shredded bark mulch) to *above* the top of the plant (light is unnecessary at this point). Sometimes it is helpful to use chicken wire or a tomato cage to hold in the mulch. Another option is to surround the containers with straw bales. When a winter warm spell warms the earth above freezing, uncover your conifers and check for dryness. If they need water, give them a good soaking and then replace the mulch and coverings. Winter protection may also be accomplished in an unheated garage or using a cold-frame. In this case, the temperature can kept just above 15° with a space heater (or heater cables in the cold-frame) and easily monitored with a minimum-maximum thermometer.