

## **The Right and Wrong Ways to Protect Plants From Cold**

BARTOW -- We are quickly moving toward colder weather. This is an El Nino year, which usually means warmer and wetter weather than normal, however it is always possible to have an unexpected freeze.

Make sure you have enough sheets, freeze cloth, blankets, etc. to cover all the cold sensitive plants in your landscape that you want to protect. When a hard freeze is predicted, water your plants the morning before the predicted freeze. However, you don't want your plants to be wet going into the evening hours. The reason for watering the soil is that moist soil retains heat better than dry soil.

Cover plants so that the material goes all the way to the ground. The idea is to trap enough heat under the cover to protect plants from cold during the night. Place weights on the material on the ground so that it doesn't blow away. The effectiveness of covering plants depends to some extent on the wind. During freezes with windy weather, the covers tend to be less effective because the wind blows the heat away. During windy freezes or very cold nights, the addition of plastic sheeting over the cloth may be worth the effort on valuable plants.

Do not use plastic alone to cover plants as the plastic may freeze to the plants. A light bulb may also be placed under the sheets to give additional heat. Make sure to remove the plastic and the light bulb the next morning

Valuable potted plants, which you are unable to adequately cover because of their height and/or predicted conditions, may be carefully laid on their side on the ground and then covered with one or two layers of protective material. Several of these plants may be grouped together and placed under an oak tree which will give them additional protection from the cold.

We don't recommend using water to protect landscape plants from cold weather as commercial growers will do. Specific commercial crops can be protected from freezing temperatures with the application of sufficient quantities of irrigation water, as we often see in strawberry fields. It is the continuous freezing of water on the plants and the subsequent release of heat -- heat is released when water freezes -- that keeps plant cells at a temperature of about 33 degrees, just above freezing. The layers of ice themselves don't protect plants.

Residential landscape sprinkler systems do not have the needed flow to protect plants in this manner. As a result, cold damage to plants from inadequate amounts of irrigation water may be more severe than if nothing was done at all.

In addition, many homeowners believe that washing frost off turfgrass early in the morning will reduce freeze damage. The temperature inside the leaf may be 32 degrees or even lower after the formation of frost and potential damage occurs immediately. The

bottom line is that the use of water to protect plants in the home landscape is not only a tremendous waste of a precious resource, but is ineffective and costly.

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Posted – Polk Voice - **November 22, 2006 10:30:09 AM**