

## **PROTECTING VEGETABLE TRANSPLANTS**

Many of the plants that we establish in gardens are transplants -- started in a greenhouse, sold in garden centers, and set out in the garden to achieve some earlier and more consistent 'production' or enjoyment. Protecting these plants (and your investment) from a freeze, hot sun, or strong wind is important for a few weeks after they have been set out.

To protect the plants during the night when a freeze is forecast, put some blankets or plastic sheets over the plants. The principle of covering plants is that the cover will trap heat -- stored in the soil and radiated to the air around the plants -- near the plants to keep them from freezing. There is also a new type of plant cover sold in many garden centers called a floating row cover. The cover is made from a thin, translucent non-woven fabric that can be spread over the top of newly set out plants. It is lightweight so the weight of the plants support it. In addition, water easily penetrates the cover as well as sunlight. It can be kept in place by soil covered along the edges and removed after two to three weeks when the weather has moderated. It is estimated that these types of floating covers will give from 2 to 5 degrees of freeze protection depending on the thickness of the cover and prevailing weather conditions. The covers are fairly inexpensive and many plants in the same area can be included under the same 'blanket' cover.

Many gardeners like to cover plants with plastic milk cartons or soda bottles, both with the bottoms cut out so they can be easily placed over the plants and stuck into the ground to hold them in place. It is important that these covers be ventilated; therefore, leave the lid off. This prevents excessive heat from developing on a hot day. It has been our observation that it gets very warm inside these covers on a warm day, especially in the soda bottle clear covering. There are still a few garden centers that handle hot-caps -- these were more popular in years past. They are a waxed paper, dome-shaped cover that can be put over each plant. The covers can be ventilated by cutting a little slit in the covers with a sharp knife or razor blade.

A newer version of a plant cover, known as the 'wall of water,' made its way into the marketplace a few years ago. Wall of water protectors consist of plastic tubes linked together and filled with water to surround the plant. This 'wall of water' absorbs heat during the day and re-radiates the heat around the plant at night. The level of freeze protection is much greater with this cover but they have a tendency to leak with the slightest puncture of the plastic. When they leak, the structural integrity of the wall is damaged and the 'wall' may flop over. They are also quite expensive unless you are using them on only a few plants.

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