Winter Hardiness of Fruit Plants

Many locations had record setting cold temperatures last week that may damage fruit plants. Peach trees often have fruit bud damage when temperatures reach 5 to 10 degrees below zero. The tree will be fine as the leaf buds are undamaged.

Note that damage to fruit buds is progressive. In other words, a temperature of minus 10 for a short period will cause less damage than a sustained reading of 10 below zero. Also, the buds will show progressively more damage the further below minus 10 degrees the temperature reaches.

Blackberries also can be damaged at 5 to 10 degrees below zero but this is variety dependent as some of the newer thornless varieties are more hardy. With blackberries, we are not worried about the fruit buds but the fruiting canes. Cold temperatures can kill all aboveground growth. But the plant will survive and grow new canes from the crown that will fruit next year.

Apples are hardier, and fruit buds are usually not damaged unless the temperature reaches minus 20 to minus 25 degrees. Red Delicious is one of our most tender varieties and can be damaged when temperatures reach minus 15.

Last week’s extreme cold was accompanied by high winds, which may have you wondering about wind chill damage to fruit plants. Wind chills can have a profound effect on warm-blooded animals’ ability to keep warm. Plants do not respond to wind chill indexes the same as warm-blooded animals because they do not need to maintain a temperature above that of their surroundings. For example, a wind chill of 40 degrees below zero at a temperature of zero degrees Fahrenheit will not cause any more cold injury to plant tissue than a wind chill index of 20 degrees below zero at zero degrees Fahrenheit. Although cold temperatures may not damage plants, wind can desiccate (dry out) plant tissues. Plant tissues require moisture to survive, and high wind velocity can cause moisture loss. This desiccation may be great enough to injure or even kill tissue, particularly the smaller size wood as in peach twigs, apple spurs or blackberry
canes. There is no scientific evidence to show that an increasing wind chill index will directly increase plant damage due to cold injury. (WU)

**VEGETABLES**

**Starting Asparagus Plants from Seed**

Asparagus plants are usually started from crowns but can be started from seed. If you wish to try the second method, order seed now. We recommend transplanting asparagus in mid to late April after danger of a freeze is past. It normally takes about 10 to 12 weeks for asparagus seedlings to grow large enough to transplant, so they need to be started soon.

Asparagus seed is somewhat erratic in germination though soaking seed in warm water for 48 hours helps. Keep the seeding medium between 75 and 80 degrees and plant at a depth equal to four times the diameter of the seed. Germination normally takes two to three weeks.

Asparagus seems to grow in spurts where growth will be rapid, and then slow. Don’t become concerned with this pattern, as it is quite common with asparagus. Plants should be transplanted to a trench about 6 inches deep. Gradually add soil to the trench as plants grow. The trench should be full by the end of the growing season. (WU)

**ORNAMENTALS**

**Conservation Trees from the Forest Service**

The Kansas Forest Service offers low-cost tree and shrub seedlings for use in conservation plantings. Plants are one to two years old, and sizes vary from 5 to 18 inches, depending on species. Orders are accepted from now through the first Monday in May each year, but order early to ensure getting the items you want. Orders are shipped from the second week of March through the first week of May.

Approved uses for these plants include windbreaks, wood lots, riparian plantings, wildlife habitat and Christmas trees. They may not be used for landscape (ornamental) plantings or grown for resale. Though a single species can be purchased, four special bundles are also available including a Songbird Bundle, Wildlife Mast Bundle, Quail and Pheasant Bundle. All items are sold in units.
Each unit consists of a number of plants, usually 25 or 50. For example, a unit of Northern Red Oak has 50 trees per unit.

For details and a link to an order form, go to http://www.kansasforests.org/conservation/index.shtml

It is now possible to order four different ways; directly online and pay by credit card, order by phone, order in person at the Kansas Forest Service state office or download the order form and send in via regular mail. (WU)

**MISCELLANEOUS**

**Newer Fluorescent Lights Available for Indoor Gardeners**

![Fluorescent Lights](image)

Many gardeners use fluorescent lights to start young vegetable and flower plants during the spring or to grow certain houseplants all year long. Traditionally we have used fixtures with T-12 lamps suspended a few inches above the tops of the plants. However, there are newer lamps that may be a better choice for some indoor gardens. These are known as T-8 and T-5 lamps. The number after the “T” refers to the diameter of the lamp in eighths of an inch. Therefore, a T-12 lamp is 12/8 or 1.5 inches in diameter and are what most people are familiar with. A T-8 is 8/8 or 1 inch in diameter, and a T-5 is 5/8 of an inch in diameter.

So does a smaller diameter mean less light? Not at all. In fact the T-5 is the brightest of the three. A T-12 lamp puts out 1,500 to 1,700 lumens for a 48-inch lamp. This lamp has a life of between 10,000 and 20,000 hours. The T-8 lamp produces 3,400 lumens and has a 40,000-hour life expectancy. The T-5 is rated at 5,000 lumens but lasts only 30,000 hours. Well, actually 30,000 hours is a long time. If you had your lamps turned on for 12 hours every day, it would take almost 7 years to reach the 30,000-hour mark.

Another advantage for these newer lamps is they use less electricity per lumen. Our traditional 48-inch T-12 is rated at 40 watts, the T-8 at 32 watts and the T-5 at 54 watts.

This sounds too good to be true. Are there drawbacks? Of course there are. First, you cannot use your existing T-12 fixtures but must use fixtures made for the type of lamp you buy. For example, a T-5 fixture that holds four lamps would cost about $200. About $60 of this cost is the four T-5 lamps included in the deal. A three-bulb T-8 fixture with the three bulbs included costs about the same ($200) but would not produce as much light. However, the T-8 lamps use less electricity per lamp and last longer. If you have done the math, you have noticed these lamps are not cheap. The T-5 lamps are about $15 each and the T-8s run about $20 per unit.
The question becomes, is it worth it? If you have a single fixture and are satisfied with your results, then probably not. If you have a more extensive setup and/or want your plants to be stockier, then this might be of value. (WU)

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