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Horticulture News

Effects of Record Cold April Temperatures on Horticultural Plants

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In Iowa, the weather in spring is often erratic. The weather in 2007 has been no exception. Record cold temperatures have followed the unseasonably warm weather in late March and early April. The cold April temperatures have affected plants in gardens and home landscapes. The good news is that the cold temperatures shouldn't have a long-term effect on most plants. The prognosis for trees, shrubs, perennials, vegetables, and other plants are provided below.

Woody Plants

The extent of plant damage is dependent on several factors. These factors include temperature, plant species, and stage of plant growth.

The most noticeable effect on trees and shrubs has been on the early blooming plants, such as magnolias and forsythias. The cold temperatures have destroyed the flowers on early blooming trees and shrubs. The cold temperatures may also have damaged the flower buds on later blooming trees and shrubs, such as crabapples and lilacs. As a result, they may not bloom as well as normal.

Newly emerged foliage is also susceptible to damage from below freezing temperatures.

Symptoms of freeze damage include shriveling and browning or blackening of damaged tissue. Damaged growth often becomes limp. Eventually, damaged or destroyed leaves and flowers may drop from the tree or shrub.

Fortunately, trees and shrubs have the ability to leaf out again if the initial growth is damaged or destroyed.

Healthy, well-established trees and shrubs should not be greatly harmed and will produce additional growth within a few weeks. Good care during the remainder of the year, such as watering during dry periods, should aid the recovery of trees and shrubs planted within the past 3 to 5 years.

Perennials

The record cold temperatures have drastically affected the flowering of tulips, daffodils, and other spring-flowering bulbs. The cold temperatures have damaged or destroyed many of the flowers of early blooming varieties. Those varieties that were developing more slowly may still bloom. The foliage of the spring-flowering bulbs has been damaged. Portions of the leaves have turned white. The damaged leaves of many tulips have collapsed onto the ground. Despite its poor appearance, the foliage should not be cut back until it turns completely brown. The undamaged portions of the leaves need to be able to manufacture as much food as possible in order to bloom next spring.

The record cold temperatures have also damaged bleeding heart, daylily, astilbe, hosta, and other emerging perennials. While the freezing temperatures may have damaged or destroyed the emerging new growth, the roots and crowns of established perennials should still be alive. (Perennials planted within the last year are most at risk of serious damage.) The damaged perennials should send up a second flush of growth in a few weeks. Good care this spring and summer should help the perennials recover.

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Vegetables

Asparagus spears that were damaged or destroyed by the cold temperatures should be cut off and discarded. Damaged or destroyed rhubarb stalks should also be cut off and discarded. Rhubarb stalks that emerge later this spring will be safe to eat.

Cabbage, broccoli, and cauliflower set out in late March or early April will probably need to be replanted. The cold temperatures may have damaged or destroyed some plants. Those plants that have survived the cold temperatures will probably not form usable heads. Exposure to prolonged periods of cold temperatures cause cabbage, broccoli, and cauliflower plants to form heads prematurely (referred to as "buttoning"). Plants that button do not form usable heads. Radish, lettuce, and spinach seeds and potatoes that were sown/planted in late March or early April should emerge in the next few weeks with the arrival of warmer temperatures.

Small Fruit

For best yields, strawberry plantings are mulched in fall to protect the plants from cold temperatures. Many of the flower buds on strawberry plantings that were prematurely uncovered in March were probably damaged or destroyed. Flower bud loss on plantings covered with a protective straw mulch should be far less.

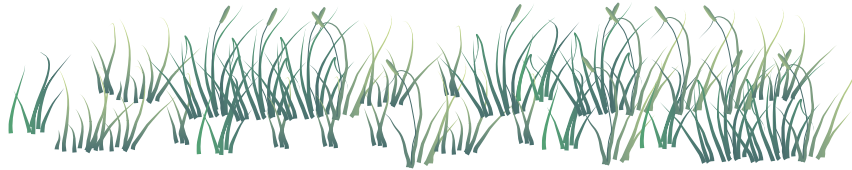
Yields of summer-bearing red, purple, and black raspberries may be reduced because of the record cold temperatures in April. The yields of fall-bearing raspberries that are pruned back to the ground in late winter will not be affected as the canes produce fruit on the current year's growth.

Tree Fruit

The cold temperatures may have damaged the flower buds of fruit trees. If the flower buds have been damaged, this year's fruit crop may be smaller than normal. The extent of damage is determined by the plant species, stage of plant development, and temperature. An illustrated chart of critical temperatures for apple, pear, peach, cherry and plum can be found in PM 1282, 2007 Midwest Commercial Tree Fruit Spray Guide.

Turfgrass

The turfgrass has temporarily stopped growing, but little or no damage has occurred. Growth will resume with the return of warmer temperatures.



Lawn Tips....

A beautiful and healthy lawn adds value to a home while also providing environmental benefits, such as producing oxygen, trapping dust and other pollutants, and reducing surface runoff.

Have a new lawn?

Mow newly seeded bluegrass lawns at a height of 2 inches as soon as grass becomes 3 inches tall. Frequent mowing at this height will encourage spreading and promote a thicker lawn. If the new grass is allowed to reach a height of 4 inches or more, set the mower blade as high as possible and promptly mow. Gradually reduce the height of the grass in later mowings.

Want to avoid turfgrass problems?

Many turfgrass problems can be traced back to improper mowing. Height and frequency are especially important for a healthy lawn. Understanding the role of thatch in the home lawn also is important.

Tired of grass?

Consider a groundcover of low-growing plants that spread quickly to form a dense mat or carpet in outdoor landscaped areas.