

# MULCHING STRAWBERRIES

Strawberries have varying cold tolerance, depending on variety. Lack of acclimation or *hardening* in the fall, as well as wide temperature swings, can decrease cold tolerance and increase winter injury to crowns. Research has shown that temperatures in the low teens can kill a high percentage of uncovered or poorly hardened plants.

## Benefits of Mulch

Mulching helps to insulate plants from low temperatures and quick changes. Mulching also protects plants from drying winter winds which desiccate, or dry out the plants, especially when soil moisture becomes low or less available in frozen soils.

Strawberries are also shallow and somewhat brittle-rooted. Alternate freezing and thawing (frost heaving) of the soil during the winter and early spring can damage roots. A layer of straw on the surface helps to moderate this soil movement.

Strawberries grow and develop late into the fall months and should not be covered too early. They respond to low temperatures and moderate frost by gradually becoming more hardy and tolerant of cold. Signs of this tolerance include a “flattened” appearance, lack of any new leaves, and red coloration of older leaves.

Apply mulch after plants have had time to acclimate and develop hardiness. Based on several studies, data indicates when soil

temperatures at a 4-inch depth have reached and stay at 40 degrees F, straw should be applied. Soil temperatures can be checked with a simple thermometer. Another rule of thumb is to apply mulch after several 20-degree freezes have occurred. For most of Illinois, this usually happens between mid-November and mid-December, depending on location.

About any type of loose organic material can be used as mulch, but straw is the most readily accessible and it has good insulation ability. Avoid materials that contain weed seeds, such as hay, as well as sawdust or chips that are too heavy and dense. Apply a 2- to 3-inch straw layer, and for raised beds with greater exposure, apply several more inches. As the winter progresses, snow helps add even greater insulation, so leave it on the plants.

## Removing Mulch

Plants resume growth early in the spring and should be uncovered in a timely manner. Typically, straw is removed when plants show signs of growth and new leaves start to emerge under the mulch. Timing of mulch removal can help delay or advance early spring growth and flowering.

Earlier removal allows the soil to warm more quickly, advancing growth and bloom. The downside is that early removal will increase



risk of spring frost injury to new blossoms. A delay in removal will keep soils cooler and delay growth and flowering, which can be an advantage in sites where spring frosts are a concern. However, don't delay the straw removal too long.

A leaf rake works well to remove straw. Rake the straw into walkways, along the row edge, and between rows to help keep weeds down and provide a clean surface for berries to rest on. Some straw should be left on top of plants to filter down and provide a cushion for the berries that form in the row middle.

For more complete information on growing strawberries and other small fruit, get a copy of *Small Fruit in the Home Garden* (#C-1343), available from county U of I Extension offices.

Author: Tony Bratsch, Horticulture Educator, University of Illinois Extension

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