

# Frost

Information on weather-ready landscapes

## WHAT IS IT?

**Frost is what happens when ice crystals form on a surface or when a layer of ice forms on surfaces that are at or below 32°F.** The ground, or any surface, must be at or below 32° and match the dewpoint for frost to form. Cold air sinks, so surface may be cooler than air above it. Calm, clear nights enhance frost chances.



## Nebraska Average Last Frost in Spring

**SE Neb:** Mid April

**NW Neb:** Mid May

## Nebraska Average First Frost in Fall

**SE Neb:** Early October

**NW Neb:** Mid September

The frost-free season has increased by 1-2 weeks since 1991 (Oglesby et al.), but it varies significantly with the statewide average "frost free" period varying by nearly 40 days during that period (Shulski et al).

Source: Midwest Regional Climate Center

## PREVENTATIVE ACTIONS

Location can play a role in frost damage



1

**Plant in proper hardiness zones.** Plant trees, shrubs, groundcovers, perennials and ornamental grasses that are adapted to USDA hardiness Zone 5 in eastern Nebraska; Zone 4 in western Nebraska.



2

**Pay attention to the weather forecast.** Nights without cloud cover typically cause the most damage.



3

**Water soils around plants thoroughly in late fall** so that they enter winter moist, not soggy or dry. Avoid fall fertilization of shrubs, roses, groundcovers and perennials.



4

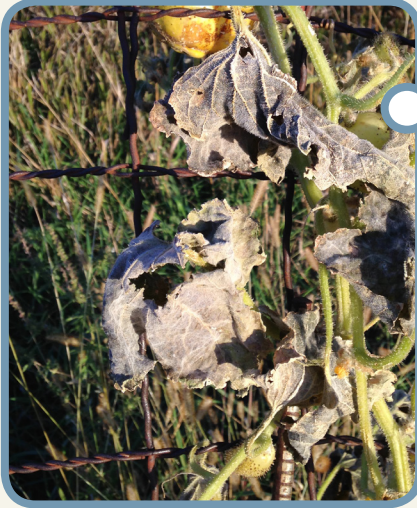
**Bring potted plants and trees to a temporary protected location** until temperatures warm to 50 °F or above.



5

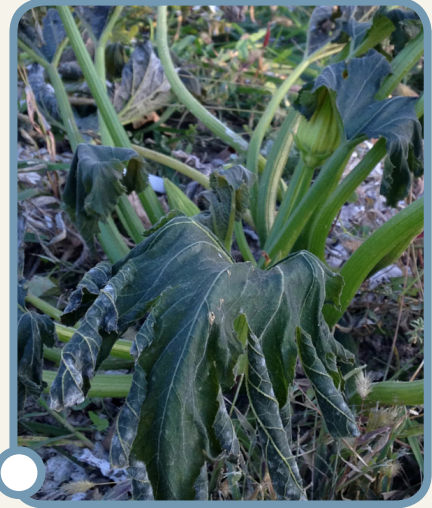
**Cover susceptible low growing plants in the evening with sheets, tarps or blankets** to trap in the earth's accumulated warmth. Use a stake or frame to minimize contact between cover and foliage. Remove the covering from plants when temperatures warm in the morning.

## TYPICAL DAMAGE



Brown and drying leaves and vine following a frost.

Water soaked appearance and leaf curling after a frost.



## CORRECTIVE ACTIONS

Recovery from frost is difficult and may take some time.



**Allow frosted leaves to fall off the plant naturally**, then rake them up and compost them.



**Cut off blackened stems** with a bypass hand pruner just above a node or growing point.



**Avoid fertilization** until the plant recovers. Early summer fertilizer application will be appropriate in most situations.



**Keep soil around the plant evenly moist**, not soggy or dry.

For more information, visit [weather-ready.unl.edu/landscapes](http://weather-ready.unl.edu/landscapes)