

INSIDE GRUNDY COUNTY
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Could you believe how cold it was? Neither could the plants, particularly as they had such an early start with the warm temperatures in April. The freezing temperatures we had the first week of May has caused varying degrees of damage to trees, perennials and to some crops such as alfalfa and corn. Hardwoods such as oak, ash, walnut, maple and hackberry had their new spring growth die because of the freezing temperatures. “Hardwoods tend to be resilient”, according to Paul Wray, Extension Forester with Iowa State University, “if the hardwoods are reasonably healthy, their dormant buds will become active and eventually they will form new leaves and by midsummer it will be difficult to see they were damaged. The greatest damage will be some loss of growth and a slight reduction in health and vigor because of this lost growth. If the tree was marginal in terms of health and vigor, the damage may be more significant and in a very few cases cause branch dieback and in most severe cases, tree mortality”.

“Some conifers were affected by the freeze as well. Most of the pines do not appear to have suffered significant damage. However, the spruces and Douglas Firs have suffered the most with significant dieback of the newly formed shoots and needles. This loss is more significant than the loss of growth with deciduous trees because conifers have fewer dormant buds. Most conifers will recover and may in some cases put on secondary growth later this spring”.

Richard Jauron, Horticulturist at Iowa State University noted that: “some perennials were damaged by the frost as well. The extent of damage is dependent on factors such as temperature, plant species, exposure and stage of plant development. Symptoms of frost damage include shriveling and browning or blackening of damaged tissue. Damaged growth often becomes limp

and eventually, damaged or destroyed leaves may drop from the tree or shrub”. Damaged perennials will send up new growth within a few weeks.

Patrick O'Malley, ISU Extension Field Specialist in commercial horticulture, reported that apples in areas that reached twenty five degrees or lower may have lost most of their crop, with twenty eight degrees being the temp when apples have about ten percent damage of the flowers or developing fruit. He said it will be at least another two to three weeks before fruit load can be accurately assessed.

Steve Barnhart, professor of agronomy with extension, noted: “once alfalfa plants have broken spring dormancy, their tolerance of low temperatures is greatly reduced. Leaves on new alfalfa shoots will often die at tissue temperature of about twenty seven to twenty eight degrees Fahrenheit (or colder). Buds and growing points are somewhat better insulated at twenty seven to twenty eight degrees Fahrenheit and will often continue to grow normally. To learn more about how the freeze affected alfalfa and early planted corn check out the following website:

<http://extension.agron.iastate.edu/>.

After there is any significant weather event, such as the freeze, the plants will need to be evaluated after a few weeks to determine the level of damage and likelihood of recovery. For more information, contact the Grundy Office of ISU Extension at 319-824-6979.