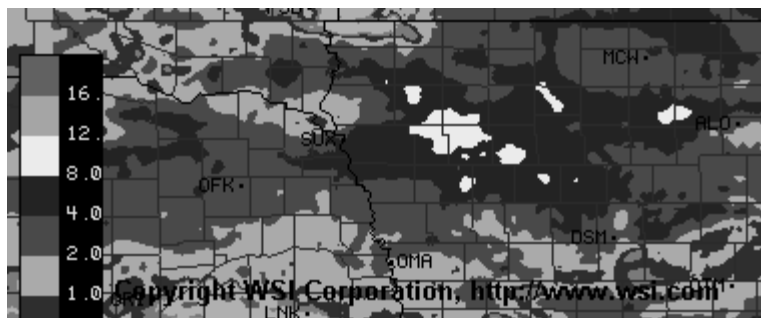


CROP UPDATE SPECIAL BULLETIN: MIDSEASON HAIL AND FLOOD DAMAGE ON CORN, SOYBEAN AND ALFALFA.

THUNDERSTORMS DELIVER WELCOME MOISTURE, BUT ALSO DAMAGE CROPS

For the most part, area crops are in excellent condition and have benefited from recent warm temperatures and rainfall. Yet some storms over the last week have caused localized hail and flood damage to area corn, soybean and alfalfa crops, leaving some producers with questions as to what yield potential existing crops may have.

For the most part, it is too late in the season to consider replanting the original crop. In many cases where hail is involved, I believe the crop will recover fairly well and may produce a respectable yield, albeit with increased potential for disease and lodging later in the season.



Seven Day Precipitation Totals

USE AVAILABLE TOOLS TO ASSESS HAIL INJURY AND YIELD POTENTIAL.

Publications are available that are excellent tools to evaluate yield potential of both corn and soybean following a hail storm at anytime of the season. The pubs can be accessed online at:

Corn: <http://www.extension.iastate.edu/Publications/NCH1.pdf>

Soybean: <http://www.ianr.unl.edu/pubs/fieldcrops/g762.htm>

When possible, wait 7-10 days following the crop damage to determine loss. By that time, regrowth of living plants will have begun and discolored dead tissue will be apparent. Also, some plants initially surviving a storm may soon die because of disease infection entering at the site of plant damage. The corn publication addresses losses due to stand reduction and defoliation as well as when the plant is most susceptible to damage. With soybeans, yield loss predictions are based on: stage of growth and degree of plant damage, including leaf defoliation, stand reduction, stem damage and pod damage.

ALFALFA MAY NEED TO BE HARVESTED EARLY

Alfalfa that is damaged by hail and is in the late bud stage should be harvested to stimulate new growth from the crown. When lower branches and leaves still remain on the stem, new growth often develops slowly from axillary buds near stem branches and yield from axillary regrowth is much lower than yield from crown regrowth.

More detailed information on injury to Alfalfa can be obtained at this URL:

http://cropwatch.unl.edu/archives/2003/crop03-16.htm#alfalfa_hail

WEEDS MAY BECOME A PROBLEM

With the loss of canopy and corresponding increase of light to the soil surface, weeds may germinate and flourish in hail damaged crops. Be prepared to deal with weedy fields at harvest.



Bruising on corn stalk



Soybean defoliation and stem damage

WHAT ABOUT WATER PONDING LOSSES?

Peter Thomison, Extension Corn Specialist at Ohio State University, notes that corn usually can survive two to four days of ponding, depending on the temperature. If the air temperature is over 77°F, plants may not survive longer than 24 hours.

The temperature of the flood water is important for two reasons: 1) there is less oxygen available in warm water than in cool water; and 2) microorganisms that use oxygen are more active in warm water and will compete with roots for oxygen.

Even if flooding doesn't kill plants outright, it may have a long-term negative impact on crop performance and the potential for disease development.



Field Ponding

More information on ponding injury to corn and soybeans can be obtained at this URL:
http://cropwatch.unl.edu/archives/2003/crop03-16.htm#flooded_crops

CONTACT YOUR INSURANCE AGENT

Report any crop damage to your insurance agent now. Your agent may not be able to determine any immediate yield losses, but he/she will assess the situation later in the season or at harvest.

GIVE THE CROP TIME TO RECOVER

Damage to crops always looks worse immediately after the storm. Give the crop 7 to 10 days before making any evaluations on potential yield losses.

For more information, contact your local ISU Extension Education Director or area Extension Crop Specialist.

This Document can be accessed at <http://www.extension.iastate.edu/carroll/crops/>

Much of this information was gathered from the University of Nebraska's June 27, 2003 edition of [CropWatch](#)