SEVERE THUNDERSTORMS AND YOUR CROPS



Thunderstorms can cause crop damage by a variety of means. High winds can break and damage plants. Hail can cause leaf damage reducing yield or destroying plants. Flooded fields can lead to loss of top soil as well as damage to crops. All of these hazards can have significant economic impacts. While little can be done prior to the storm situation, prompt action after may help minimize the impact to your crops.

Before a Severe Storm

- Open all drainage ditches.
- Remove any debris from fields and pastures that could damage plants, if airborne.

After a Severe Storm

Assess your crops.

- □ Survey the damage to your crops from wind, hail or flooding.
- Determine how much of your crops are water logged (only roots flooded) and how much are fully submerged (entire plants under water).
- Evaluate injured plants to determine whether the growing potential is still viable; this is best done 3-5 days after the storm to allow time for plant recovery – if it occurs.
- □ Factors affecting the extent of crop damage include:
 - . Degree of submergence of plant
 - . Weather conditions prior to the situation (e.g., temperature)
 - . Plant growth stage and height younger stages are more vulnerable
 - . Significant loss of soil nitrogen
 - . Mud deposited on plants can stress plants and reduce photosynthesis
- Yield losses due to hail damage may include:
 - . Stand reduction due to plant death
 - . Leaf area reduction due to hail damage to leaves
 - . Severe bruising of leaf tissue

Replant considerations.

- Contact your crop insurance agent prior to destroying or replanting crops to discuss coverage.
- The USDA Farm Service Agency has a number of disaster assistance programs to aid farmers in recovering from severe weather damage to crops. www.fsa.usda.gov/

Evaluating whether to replant will depend on:

- $\hfill\square$ The existing plant stand
- Distribution of the plant stand
- Calendar date
- Weed situation
- Seed availability of earlier maturing hybrids
- Cost to replant
- $\hfill\square$ Yield potential of the existing crop

• Monitor for diseases.

- Flood conditions can increase disease incidence in surviving plants; scout the fields often to determine if and when problems occur.
- Do not feed heated, molded or sour feeds or moldy legume hays (alfalfa, clover) to any livestock.
 - Rain damaged grain is likely to contain toxins as warm wet conditions are ideal for mold growth.
- Do not use flood damaged or wet feeds until tested.
 - It may be possible to dry and clean rain damaged grain, but it must be tested for mycotoxins before use.
 - Soaked grain will spoil within a day or two at high moisture and summer temperatures.
 - Flood damaged grain should always be destroyed due to the potential contaminants that can enter through the water.
 - Wet seed grain will probably not be suitable for planting, as wetness causes the seed to germinate.

Development of this educational material was by the Center for Food Security and Public Health with funding from the Multi-State Partnership for Security in Agriculture MOU-2010-HSEMD-004. June 2010.

