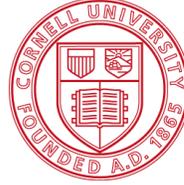


# Flood and storm damaged crops

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**Anyone suffering crop damage due to recent floods should contact their crop insurance adjuster immediately if they have crop insurance and also contact their local FSA office to report loss before taking any measure to improve the situation. Make sure you have documented a loss appropriately before losing the evidence of the loss. Failure to document may mean the loss of the ability to make a claim in the future.**

## **Corn Silage**

Corn that was underwater and has silt on it may be better used for grain than for silage. This silt or soil may contain clostridium, listeria and coliform bacteria which may negatively affect silage fermentation or the animal health directly. From a forage quality standpoint it may be good to look at the ash (mineral content). The presence of silt will raise the ash content. The Dairy One feed composition library shows that corn silage ash content over the past five years has averaged 4.2% with a normal range between 3.1 and 5.4%. So if plants are higher than 6-7 % ash you are likely seeing soil contamination. Although everything is not known there is reason to believe that elevated ash content may itself be enough reason not to feed this corn; basically you are feeding dry matter that has no nutrient content. It is something you may want to try yourself, actually running a few plants through a chopper and sending a sample to a forage testing laboratory to check ash content.

If you are going to harvest flooded corn for silage store it separately so it will not affect good feed. Propionic acid products may provide some additional forage stability under these difficult conditions. Consider the use of an silage inoculate with a reputable lactic acid bacteria inoculant (guideline: the inoculant should provide at least 105 (100,000) colony forming units, or cfu's, per gram of forage). Considering using an inoculant that contains *Lactobacillus buchneri* in addition to another *Lactobacillus* bacterium, especially if forage is drier. Use forage testing to check your VFA score to see if proper fermentation took place.

Overall it would be best to avoid using silted corn for corn silage if you can avoid it.

## **Corn Grain**

Dr. Greg Roth at Penn State has put together a series of bullets as a guide to using flooded corn for grain

- Harvesting for grain is likely a better option than for silage where flooding has occurred.

- Combine air filters likely will need to be changed more frequently. Operators should take steps to avoid breathing the dust.
- Harvest when the fodder is dry to help limit the dirt in the grain. Monitor the dirt in the corn coming into the bin and avoid the worst sections of fields.
- Harvesting high-moisture corn at the drier range of acceptable levels could improve the ability to clean dirt from the corn.
- The expected quality of grain is uncertain and should be monitored. The potential for crop contamination by flood waters could affect the marketability of grain and silage.
- Monitor for sprouting. Some river bottom fields are prone to bird damage and often have some sprouting risk. The flood may exacerbate the problem. Try to adjust the combine to remove most of the sprouted grain.
- Monitor for molds. Corn from flood-damaged fields should be evaluated for grain quality and kept separate if there are indications of molds. Mold and mycotoxin levels can be determined by most feed testing laboratories and used as guidance in marketing.
- The risk of molds and sprouting is likely a function of the exposure to the water and stage of growth. Corn that was under water will have an increased risk for molds and bacterial rotting. This may be more pronounced in corn that was already drying down (<40% grain moisture) and then took on moisture during the flood.
- Monitor for bacterial stalk rots. Fields that remained flooded for more than 12 hours are most at risk for stalk rots.
- The crop may mature more rapidly under these conditions, since corn that has been stressed when near maturity often seems to dry down fast.
- If the grain is deemed unfit for animal use, then it will be necessary to pursue crop insurance claims. If producers expect a claim, they should consult with an adjuster prior to harvest.

Reference:

Managing Flood Damaged Crops

by Greg Roth, Glen Cauffman, Erick DeWolf, Jud Heinrichs, David Wolfgang and Craig Altemose.

[http://cornandsoybeans.psu.edu/flood\\_damaged\\_crops.cfm](http://cornandsoybeans.psu.edu/flood_damaged_crops.cfm)

## **Soybeans**

Many of the same issues facing corn are also facing soybeans may be worse given the inability of to raise a combine head up to avoid silt and debris and still harvest the beans especially if they are lodged much. So if beans are upright and relatively silt free they should reach maturity and be harvestable.

## **Wind damaged, tipped or leaning corn.**

When Hurricane Irene came through there were soaking rains that left the ground soft and as the winds whipped through corn began to tip or lean over. This condition should not affect yields, with a few exceptions and the biggest issue will be harvest. At some point corn tipped more towards horizontal than upright may actually have enough root damage to stress the plant and you may see some early senescence. But for the most part corn that is leaning away from vertical will probably if anything be delayed in maturity as the corn plants are on top of one another and not getting as much sunlight. Plants as they get closer to the ground may end up with more soil splashed up on them or plants may come in contact with the ground. You should ex-

pect to see more ear and stem rots and to have more late season leaf diseases. Again ash content could become an issue for silage corn if too much soil ends up on these plants

## References

Wind Damage Management in Corn

<http://cornandsoybeans.psu.edu/winddamagemanagement.cfm>

Leaning Corn and Suffering Soybeans

<http://bulletin.ipm.illinois.edu/pastpest/articles/200318d.html>

## **Hay and Pasture**

All standing hay and pasture should be removed from the field if possible especially if you are trying to get any growth out of the remainder of the season. It should not be fed or used for bedding. This may be most easily accomplished by harvesting as large round bales. Blowing back on the field using a chopper is a possibility, one to be used reluctantly, if cut short and you feel fairly confident of a lack of debris. Running any of this silt covered material through machinery is likely to cause excessive wear. It would be a good idea to wash/sanitize machinery when done. Also there will be a great deal of dust when working with this material so the use of appropriate dust masks is encouraged.

Keep animals out of flooded pasture areas until at minimum they can be clipped and you have checked for debris. Best if animals are kept out until next spring. Pastures that have had excessive silting and may have had plant loss may need to be reseeded.

Legume and grass plants will probably recover from modest amounts of deposited silt, 1-3 inches. Beyond that may mean the need to replant because the plants have been smothered.