



Managing Flood Damaged Crops

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Invariably, floods occur somewhere in Vermont almost every year, often on lowland crops. This year the flooding was widespread and occurred early in the season, resulting in replanting issues for many farmers. When flooding occurs later in the season, the damage to growing crops can vary, and must be assessed for potential feeding problems.

The following are questions farmers typically ask regarding what to do in flood situations.

Q: I was ready to take a cutting of hay off a field and then it flooded. What should I do?

A: If you haven't already done so, get this standing material off the field as soon as possible to encourage regrowth. Use a mask or filtered cab to avoid breathing in dust. Based on experience with previous floods, feeding heavily silted material to livestock can cause problems with animal health, production and/or reproduction. Generally, you need to consider this material debris and avoid using this as feed if possible. The silt will dull chopper knives, so use an old machine if available. We also recommend that you talk to your crop insurance agent and your local U.S. Department of Agriculture Farm Service Agency office about the damage before you harvest.

Q: Can I put this flooded forage into my silo?

A: To be safe, avoid making silage out of heavily silted forage. It may contain *Clostridia* organisms that can lead to poor fermentation or even serious diseases such as botulism. If you do decide to ensile the forage, keep it separate from your unflooded silage with an ag bag, separate silo or baleage, for example. Chop at a proper moisture content for your silo and pack as much as possible.

Inoculate silage with a reputable lactic acid bacteria inoculant and follow the directions for the correct rate. Buffered propionic acid preservatives also may help limit mold and yeast growth, especially in drier silage, but may not reduce the risk of clostridial fermentation. Apply at the rate of three to four pounds acid per ton of forage.

Q: What precautions should I take when handling flooded forages?

A: These flooded forages contain fine silt, fungus spores, bacteria and other things that are bad to breathe. So use a dust mask, available at your local hardware store, to filter out dust particles.

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Q: Can I graze flooded pastures?

A: Be cautious. Soil disrupted by the flood along with decaying organic matter can expose your animals to clostridial organisms that may cause diseases. The safest approach would be to clip the contaminated pastures and then wait to graze the regrowth. Don't graze it too closely.

Avoid letting your livestock get down into the old dead material. Watch your livestock closely. If any animals appear sick, call your veterinarian immediately. If you lose any animals, you may want to request an autopsy.

Q: My corn was flooded. Can I harvest it?

A: It depends on when the flood occurred. If the flooding occurred in June or July when the corn was in the vegetative stage before tasseling, then the plants will probably pollinate normally and have normal ears. If that happens to your crop, go ahead and chop it normally. Consider storing separately to reduce the risk of contaminating the rest of your corn silage.

Picking for ear corn is another option if the season allows it. Check for debris before chopping. Raising your chopper head as high as possible to avoid the lowest silted leaves might help. Adding a *Lactobacillus* inoculant will improve your chances of good fermentation. You may see an increase in stalk rot resulting in more lodging. The stalk rot fungus can move inside the plant and could infect the ear. If flooding occurred after pollination, check the ears for mold and silt. If heavily silted with signs of mold, do not store or feed. Mold is bad, both feed value-wise and for risk of mycotoxins. A corn crop with moldy ears is best left in the field.

Q: My wrapped round bales got flooded. What should I do?

A: Flooded wrapped bales are apt to spoil. We have seen flooded bales with the plastic still intact, yet silt was found inside the wrapping. Even if your bales looked ok right after the flood, check a few in about a month to look for changes. You certainly don't want to wait and be surprised when you are ready to feed them to your livestock.

Q: What about mycotoxins in the hay or corn?

A: Mycotoxins are poisons that are produced by certain fungi under certain conditions. Even some non-flooded forages in Vermont contain mycotoxins, which can cause problems in production, reproduction and intake problems, as well as possible irreversible damage to cows' organs, including the liver and kidneys. It's a good idea to test your forages for mycotoxins after complete fermentation but soon enough so you have time to obtain other feed if you have a problem.

If you find mycotoxins, talk with your veterinarian and feed person. Remember that "the dose makes the poison." If you can mix the poorer feed with good feed, you may be all right. Check with your veterinarian or nutritionist for a recommendation for an absorbent product that can help "tie up" the mycotoxin.

Q: Should I feed flooded forage?

A: Your profitability is closely tied to your forage supply and quality. Can you afford to take chances? If you decide to feed it, consider diluting it with other forage. Be sure you have it tested for nutritional value. With added silt, you may find a higher dry matter and ash content and a lower protein and energy concentration. Once you start feeding any flooded material, watch your animals closely. Mycotoxins and other potential pathogens may cause health problems.

Q: I think I will be really close on feed for this winter. What should I do?

A: Take inventory of what flooded and unflooded feed you have. Estimate how much feed you will need this winter and whether you can get away with not using the flooded second cut. Right now and again this fall is the time to do the figuring. If you find you will have to borrow money to buy feed, talk to a banker early. It will show that you are planning ahead.

Q: Who can I contact about my situation?

A: If you have additional questions, please contact your local University of Vermont Extension office. You also should document damage to fields and report any crop damage to your local U.S. Department of Agriculture Farm Service Agency office, your crop insurance agent and the Vermont Agency of Agriculture, Food and Markets. You are strongly encouraged to take photos of any damage. Such information may be critical in federal emergency determinations and eligibility for these programs.

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