

CORN MANAGEMENT AFTER EXCESSIVE WIND AND RAIN

SITUATION

Heavy wind and rain late in the growing season can dramatically affect corn. Flooding, downed plants and disease are just a few of the potential management challenges related to extreme weather. Consider your options for recovering as much value as possible and take precautions when storing and feeding damaged corn.

FACTORS TO CONSIDER

- Damage extent
- Damage type
- Inoculants
- Silage storage

ACTION PLAN

1. Determine extent of damage. Totally flattened corn should be disked and plowed to eliminate residue and reduce volunteer corn. Allow lodged corn to stand until it reaches 32 percent to 35 percent dry matter (DM). Continue to monitor the crop; some varieties will stand back up, while others will mat down. **Brown midrib (BMR)** corn plants may rebound because of the lower lignin content in the stalks. Harvest fields that are matting as quickly as possible to avoid severe losses. Kinked corn will die, and starch accumulation will stop. Harvest these fields for silage, as the grain will not mature because the stalks will rot and the crop will not dry down.

2. Manage flooded corn on a field-by-field basis. Variables such as floodwater height, length of time under water and speed of flow make each field different. If corn is standing well after flooding, let it remain in the field until a few showers have removed the soil from the plant. Harvest for grain, especially if the water did not reach the ear. Increased risk of stalk rot may reduce standability. If chopping, raise the cutting height above the flood line to avoid excess ash. If the ears are saturated, consider harvesting grain for ethanol, as this market typically does not reject due to the presence of mycotoxins.

3. Utilize inoculants to aid fermentation in a dead or dying crop. Harvest dead or dying corn as soon as possible and treat with inoculants. Silage at 28 percent to 30 percent DM will benefit from a straight homolactic acid bacteria or 2 to 3 pounds of buffered propionic acid. Homolactic acid increases production of lactic acid to speed up the initial fermentation process. However, homolactic acid is not effective at increasing shelf life of silage, which is a large contributor to DM loss. Propionic acid will inhibit mold and help to increase shelf life. For growers using bags or bunker silos, adding 1 to 2 pounds of buffered propionic acid in the field and homolactic acid in the silo is effective. This is a more costly approach, but it can improve silage quality, leading to better cow health and milk production.

If the crop is living, monitor DM and harvest as usual, once the corn reaches 32 percent to 27 percent DM. Treat with the heterolactic bacteria *Lactobacillus buchneri* to aid fermentation. During storage, *L. buchneri* converts lactic acid into acetic acid, which is a potent inhibitor of yeasts and molds.

4. Take extra care when harvesting and packing. Chop slowly and keep cutting knives sharp. Cones and reels are helpful in pulling in kinked corn. Chain-driven chopper heads do a better job of picking up downed corn than teeth or kemper cutters. Proper packing speed and density are critical regardless of silage stage at harvest. Removing oxygen from silage also is critical to the fermentation process to inhibit growth of yeasts and molds.

SUMMARY

Evaluate your crops for wind and flood damage. Consider options to salvage yield and maintain quality. Segregate silage from damaged fields to monitor quality. For more information, contact your local Mycogen Seeds customer agronomist or forage nutritionist.



Kinked corn should be harvested for silage.



BMR corn that is bent by wind will often recover.

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