



Agronomic Spotlight

Harvesting Lodged Corn

- Stalk lodging makes corn harvest difficult and can lead to yield loss and storage issues.
- High winds, stalk rots, and Stalk cannibalization, stalk rots, and high winds can contribute to corn stalk lodging.
- Effective management of harvest and storage of lodged corn can assist this year's harvest and next years planting.

Harvest Tips

Fields with considerable lodging can be a challenge to harvest efficiently. The following are some harvesting tips to protect yield potential:

- Corn reels can improve harvest efficiency.
- Harvest against the angle of the lodged corn to help maximize lift into the header.
- Harvesting when dew is present can minimize fluff.
- Combine should be adjusted properly to help minimize broken kernels and excess fines as they can lead to spoilage in storage.
- Avoid over-threshing.
- Combine should be set to blow out as much of the fines and foreign material as possible.
- Follow the combine operator's manual for cylinder adjustments, speed, and clearance settings suggested by the manufacturer.



Figure 1. Outer stalk symptomology. Healthy (left) versus anthracnose (right).

Factors Causing Lodging

As crops near maturity, stalk integrity can be reduced by several factors. Stalk strength is naturally reduced by cannibalization involving the movement of nutrients from the stalk to fill the kernels when there is a higher demand of nutrients to the grain than the plant can functionally support. This can cause disintegration of stalk pith cells and impact the amount of lignin in the rind cell walls, which may lead to physiological stalk lodging. Additionally, stalk rots and secondary pathogens can diminish stalk quality (Figures 1 and 2). High winds from recent passing storms may also cause corn plants to lodge in fields where a crop has not yet been harvested. Stalk cannibalization, when combined with stalk rot infection and high winds, can result in significant lodging (Figure 3).

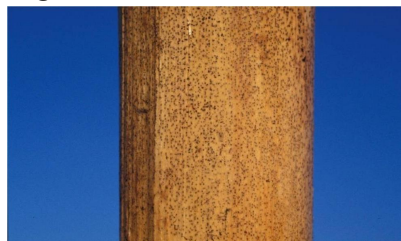


Figure 2. Outer stalk symptomology of diploidia.

Control Volunteer Corn

Volunteer corn may become a problem in fields that were lodged or could not be harvested. Volunteer corn is generally not a major threat to the yield potential of corn and soybeans if managed properly. Various management options are available to help prevent and/or control volunteer corn.



Figure 3. Fall stalk lodging due to cannibalization and stalk rots.

- Using no-tillage practices can minimize seed to soil contact, thereby hindering germination.
- In conventional tillage situations, early fall tillage can stimulate germination and emergence prior to a winter freeze. This may help reduce the potential amount of emergence the following spring.
- Consider planting fields with high volunteer corn pressure last to allow as much of the volunteer corn to germinate prior to the final control measures (tillage, herbicides, etc.) being implemented before planting.
- If the volunteer corn pressure is extremely high, consider planting soybeans versus corn. There are more labeled herbicide options for soybeans that offer good control of volunteer corn. Control of volunteer corn is relatively easy to achieve in soybeans with application of a postemergence grass herbicide.
- For more detailed information on managing volunteer corn, please contact your local seed representative.

Sources

¹Steckel, L., Thompson, M., and Hayes, R. 2009. Herbicide options for controlling glyphosate-tolerant corn in a corn replant situation. *Weed Technology* 23(2):243-246. McNeill, S. and Montross, M. Corn harvesting, handling, drying, and storage. University of Kentucky Cooperative Extension. www.ca.uky.edu. Corn stalk rots. 1995. University of Illinois Extension. RPD No. 200. Web sources verified 07/20/2016. 131122020101

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