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POTASSIUM DEFICIENCY: LISTENING TO YOUR EARS OF CORN

It's the end of the season. Is it too late to tell if potassium nutrition was a problem? Potassium deficiency symptoms, when they exist, are usually best observed early in the season. During vegetative growth stages, potassium-deficient corn may show yellow or brown leaf margins. However, such symptoms may be difficult to detect at harvest.

At the end of the season, corn can still provide some visual clues about potassium nutrition. Ears may be low to the ground, stalks may be broken or lodged, and ears may be smaller and lighter, with unfilled tips. The following is a list of things to look for at the end of the season.

End of season indicators of potassium deficiency:

Ears

- Insertion of ears at lower nodes
- Shorter ear length and narrower ear diameter
- Reduced grain weight
- Incomplete grain filling
- Premature black layer formation in seeds

Stalks

- Accelerated leaf senescence
- Shortened internode length
- Narrowed stalk diameter
- Thinner stalk rinds
- Weaker stalks
- Increased incidence of stalk breakage and lodging
- Increased susceptibility to stalk rot

If you see any of these signs, it may be time to re-evaluate your potassium fertility program. This assessment is best made by taking a soil test and conferring with a knowledgeable consultant, adviser, or agent. You may also want to plan to take a few plant tissue samples from the next crop to monitor potassium nutritional status during the season.

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