



Identifying Development Stages

Overview

Identifying early-season corn developmental stages is crucial for effective crop management. By properly identifying the stages, farmers can make well-informed decisions on replanting, applying herbicides and managing insects. Accuracy leads to more timely and profitable decisions, so make sure you know what to look for and how to differentiate the stages.

What you should know

- Multiple staging systems are used for corn development. Agronomy professionals use the leaf collar method. The horizontal leaf method is used by the crop insurance industry. The plant height method is referenced on pesticide labels.
- Growth stages in the leaf collar method are separated into vegetative and reproductive phases. The first stage of vegetative growth is vegetative emergence (VE), which begins when coleoptiles emerge through the soil surface and continues until the first leaf collar is present.

Action steps

1. **Determine growth stage using leaf collars:** Count the leaves with a visible collar. The number of collars is the vegetative stage, so a plant with 4 visible collars is in V4 stage. The final vegetative phase, vegetative tassel (VT), is when all branches of the tassel are fully visible and extend outward.
2. **Determine growth stage if leaves are missing:** Loss of lower leaves due to senesce, stalk expansion, frost or hail makes determining growth stage harder. Split the stalk and identify the stalk node to which the remaining leaves are attached. Each leaf originates from a node. Leaves 1-4 attach to nodes compressed at the base of the stalk in a triangle shape. Leaf 5 is attached to the 5th node, and so on. Once a stalk node with a leaf with a visible collar attached has been identified, continue counting collared leaves to determine the V stage.



Corn seedlings at V4 stage.



30-Second Summary

- Effective crop management begins with identifying early-season corn developmental stages.
- Determine the vegetative stage by counting the number of leaf collars.
- If lower leaves are missing, split the stalk and use the stalk nodes to determine the growth stage.

NOTES:

For more information, contact:



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