

KEYS TO WATCH FOR IN LATE SEASON CORN AND SOYBEAN MANAGEMENT

TOP 3 LATE SEASON GOALS

1. Conserve Energy

A main goal of late season crop management is to help conserve as much of the plant's energy as possible. For example, it takes a lot of energy for the plant to convert nitrate into a protein. Having a sufficient amount of sulfur, molybdenum, copper and potassium in the plant will help the plant convert nitrate into a protein, therefore, conserving more energy. Helping the plant conserve energy helps promote grain fill in the crop.

2. Transport Sugars & Nutrients

Keeping sugars and nutrients moving throughout the plant is a must for late season crop management. Did you know that potassium and magnesium are the main sugar and nutrient transporters in crops? The size of the xylem and phloem also helps transportation throughout the plant. Silica, calcium and boron are responsible for determining the size of the xylem and phloem.

In corn, the xylem and phloem are located in the stalk and in the midribs of leaves.

In soybeans, the xylem and phloem are located in the stem and branches. The thickness of the stalk/stem and midrib/branches is a good determination of how big the xylem and phloem are. For this reason, it's important to create your xylem and phloem early in the season.

3. Corn & Soybeans Observations to Train the Eye

Consider the following when evaluating your crops late in the growing season:

Color:

- How deep is the color of green on the tissue?
- Are there any interveinal patterns?
- Is there crinkling of the leaf margins?
- If so, where are they located? Edge/mid? Rib/tip?
Older or newer leaves?

Documenting these key notes before you send in your tissue analysis is a highly advantageous learning tool.

Stalk/Stem Diameter:

As stated above, the stalk/stem diameter is a great indication of how well nutrients and sugars are moving throughout the plant.

Midrib/Branch Diameter:

As stated above, the midrib/branch diameter is a great indication of how well nutrients and sugars are moving throughout the plant.

Stress Observations:

The following are beneficial observations and questions to ask in the field regarding stress in plants:

- Are the leaves on corn closing due to heat and drought?
- Are the plants showing signs of elongation?
- If the plant is starting to turn a lighter shade of green or even yellow where is this located?
- The top section and/or bottom portions of the plant?
- Is there any chemical damage/burn from last spraying?

BONUS: LATE SEASON KEY NUTRIENTS

N-: Nitrogen is essential for plant growth, health and yield gain.

K+: The drought protector, sugar transporter and stomata control nutrient.

S-: Nitrogen's little brother, triggers enzymes and is involved with converting nitrate into protein.

Ca++: Determines the kernel or seed depth.

B-: Helps calcium in determining the kernel or seed depth.

Mg++: Helps load sugar onto the xylem and phloem and determines where the sugar goes.

Mo++++: Conversion of nitrate to protein.