



WALKING FIELDS

THE REST OF THE STORY

When having a conversation with a producer about an issue they are experiencing on their farm, often times you can be left scratching your head wondering what could have caused the issue. The majority of the time it is not until you get your boots in the field that you begin to piece together exactly what might have happened. Think chronologically when diagnosing where things went wrong. Very rarely is there only one single event or one management decision that will cause a catastrophic issue. Begin with the previous crop by identifying the residue, sometimes the old crop can have an affect on pest pressure and nutrient availability. Know the exact product and trait platform you are dealing with. Next, analyze the decision that were made at planting. Seeding depth, soil conditions, seeding date and seeding rate all come into play. Begin to evaluate pest damage and pressure by starting with the first emerging pests. Be aware of the affects of in-season management decisions such as nutrient and herbicide applications. Weather conditions and weather events throughout the growing season can be the factor that reveals any poor decisions made. The correct product planted in the wrong spot with poor technique exposed to poor management, pest pressure and/or a weather event will fail every growing season. Let's help our producers by identifying the factors that lead to a failure and collect the rest of the story.

“CORN GROWING WEATHER”

TASSEL EMERGENCE AND POLLINATION

Warm and humid “corn growing weather” has helped move the corn along at a high rate. Much of the corn throughout the upper Midwest that was planted in the mid-May timeframe has tasseled. Once the tassels do emerge the silks are not far behind. Silks will begin elongating at a rate of one to one and half inches per day from the ovules at the base of the ear and continue towards the tip of the ear. An emerged silk is viable for about ten days in ideal conditions but because not all silks are exposed at the same time viable silks may be present to receive pollen for about two weeks. Pollen shed takes place not long after the silks and the tassels have emerged. Typically pollen shed will last anywhere from five to eight days with peak pollen shed happening around the third day with one tassel producing anywhere from two to twenty-five million grains of pollen. Once pollen does land on a silk that is viable, fertilization will happen within 12 to 28 hours. However successful fertilization does not always result in a kernel of corn. There are many factors that can affect the formation of the kernel after pollination. Because corn silks are mostly made up of water; droughty and dry conditions near pollination can slow or stop silk

elongation. The water use requirements of a corn plant are highest during pollination. Corn pollen is also sensitive to drought as well as heat. Temperatures of 100° and above can kill pollen. Fortunately, the corn plant has adapted by releasing the majority of pollen mid-morning and again in the early evening. Nitrogen and phosphorous uptake is also very rapid and in large amounts during pollination. Proper fertility allows the plant to take up nutrients readily rather than mobilizing nitrogen and phosphorous from the stalk of the plant to feed the pollination process. Also, any management for silk clipping insects such as corn rootworm beetles and Japanese beetles should be done before pollen shed ends. Once the pollen shed had stopped the silks are no longer viable and do not need to be protected. Tassel emergence is an indication of fungicide application for many producers as well. An application at this time will help protect the critical leaves that will feed the ear at a time when heat and moisture often produce the heaviest disease pressure.

There are many management decisions that can make the season a success as we continue to sweat through the “corn growing weather”.



FLY THE FLAG

EXCITING NEW WHEAT VARIETIES

Wheat harvest is getting started in some areas of the state but it is what we have seen leading up to harvest that has impressed many within Legacy Seeds. The excessive moisture in 2019 has really showcased nitrogen management and fungicide timing and use in wheat. Nitrogen that was available and in the root zone during the jointing and early boot stage was readily utilized by the plant to produce the flag leaf and continue to form the head. Protecting the flag leaf is another very important factor. Timely fungicide applications helped to fight off disease pressure in a year with moist warm conditions. Protecting the flag leaf is an important objective as well as preventing Fusarium head blight. Nutrient uptake and disease pressure are very important at the flag leaf stage in wheat. The flag leaf is the factory that continues to feed the head and produce grain.

The flag leaf in many new Legacy Wheat varieties has stood out and impressed in plots so far this year. It looks as though this will translate directly to yield. Stay in touch with your DSM for wheat plot harvest reports as combines begin to roll.



WHAT'S IN MY BEANS?

MID-LATE SEASON SOYBEAN ISSUES

Aphids? White Mold? What is this bug? We are quickly approaching a very important time in determining yield in our soybean fields. With shorter plants this it is critical to protect every leaf and every bushel of yield potential. Many pests and diseases emerge and mature based on heat units not crop stage. GDU's for 2019 are only about 100 behind the average where as crop stage is significantly behind in some areas. This means that shorter delayed crops could face quite a battle. Disease pressure could be elevated with the excess moisture but the lack of plant canopy may help hold off the conditions that some diseases need to spread. Be aware of insect pressure. Any management decision based on leaf area affected such as insect feeding or disease infestation will happen much quicker when we do not have as much leaf area on 2019's crop. Know the pest and disease pressure in your area. Research the rescue options you have. Figure your economic thresholds. Most of all go find what's in your beans.

LATE SEASON ALFALFA FERTILITY

O"K"? WHAT'S THE BIG DEAL?

Proper late season management of alfalfa create healthy and productive stands. After the third cutting is a perfect time to supplement potassium. Start by knowing your forage production and soil test levels of K. Be sure that enough K_2O is applied to cover the crop removal rate of 58lbs of K_2O per ton of dry matter harvested. A "build" or supplementing soil application can also be made to move soil levels closer to optimum level of 2.5-3.5% base saturation or around 130ppm. Alfalfa utilizes large amounts of phosphorous as well, but a stand will not benefit from applications of phosphorous in crop because of its immobility in the soil. Other nutrients such as sulfur and boron are mobile in the soil and will benefit alfalfa but will likely leach through the soil profile once the crop goes dormant. Focusing on potassium late in the season will keep stands strong and productive.

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