



PLANT HEALTH CHALLENGE NEWSLETTER

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2019 CORN UPDATE

WBC Showing Up in Area Cornfields

As VT treatments are taking place all across south-central Nebraska, there is more to look for than just disease. Insects can also have a negative impact, causing major issues in our area crops. In our scouting efforts, western bean cutworm and grasshoppers have been noted in many fields. These pests can cause major yield loss as they reach threshold numbers.

Western bean cutworm can be difficult to control if treatments are not timed correctly. As egg masses are found, keep an eye on threshold, which is 5 percent, to apply a timely treatment if needed.

When western bean cutworm hatch, they migrate to the tassel for feeding until the silks and ear come out of the plant. The most ideal time to treat is after hatching, but before they migrate into the ear. Once western bean cutworm are in the silks/ear of the corn plant, they are nearly impossible to control due to the product being unable to reach the inside of the ear. We must treat before this occurs to protect your crop.

Grasshoppers are moving into



This week's GDU indicator

cornfields as the wheat crops are being harvested and as grass is drying up with the recent hot temperatures. Monitor field edges for signs of grasshopper feeding, as this is where it begins. They can do significant amounts of damage to corn leaves as the numbers and size of the hoppers increase. There has been multiple fields already impacted by hail that have caused leaf damage. It is crucial to protect the rest of the plant to keep it healthy through pollination and the remaining time of its lifecycle.

As fungicide applications of Headline Amp are being applied, scout your field for disease and insects that can quickly invade your crop. Applying fungicide and insecticide together could save on application costs.



Western Bean Cutworm was found in a cornfield in Adams County.

Also, keep a close eye on dryland fields. Some of the largest returns on investment were on dryland cornfields in the 2018 Plant Health Challenge. Do not underestimate the impact disease and insects can have on dryland fields. With the timely rain and favorable growing conditions, dryland crops are looking exceptional this season and have great potential for high yields. A VT treatment of Headline Amp will keep dryland corn healthy until black layer.

— Travis VanEperen

2019 SOYBEAN UPDATE

Protect Soybean Yields Now With Priaxor®

Soybeans across Nebraska are hitting the R3 growth stage. Now is the most important time to protect your yield! Planned fungicide, insecticide and irrigation will help ensure maximum yields.

In 2018, Plant Health Challenge R3

treatments delivered positive ROIs. Schedule your Priaxor fungicide treatments now. Pythium Root Rot, Bacterial Leaf Streak and Common Rust have been observed in central Nebraska, along with thistle caterpillars. Make sure to scout your fields for insect

pressure before you apply fungicide treatments.

Now is the best time to include Fastact Insecticide with your fungicide treatment. If you have any concerns or questions on treatments, give us a call.

— Jeff Landen

NEBRASKALAND AVIATION

SOYBEAN UPDATES

BASF PRODUCT UPDATE

Priaxor® Provides Health & Disease Benefits

It is an exciting time for crop development – soybeans are moving through their reproductive stages across Nebraska. This means we are now hitting the most significant time in soybean development. Here is a refresher on the first four reproductive stages in soybeans:

R1 Stage

- Designated by one open flower on any node on the main stem
- Shortening days trigger flowering
- Cool temperatures delay flowering

R2 Stage

- Open flower at one of the top two nodes on the main stem with a fully developed trifoliolate leaf
- Escalating dry matter and nutrient accumulation is occurring
- 50% of total node numbers have been accumulated
- Peak nodule development and nitrogen-fixation occurs

R3 Stage

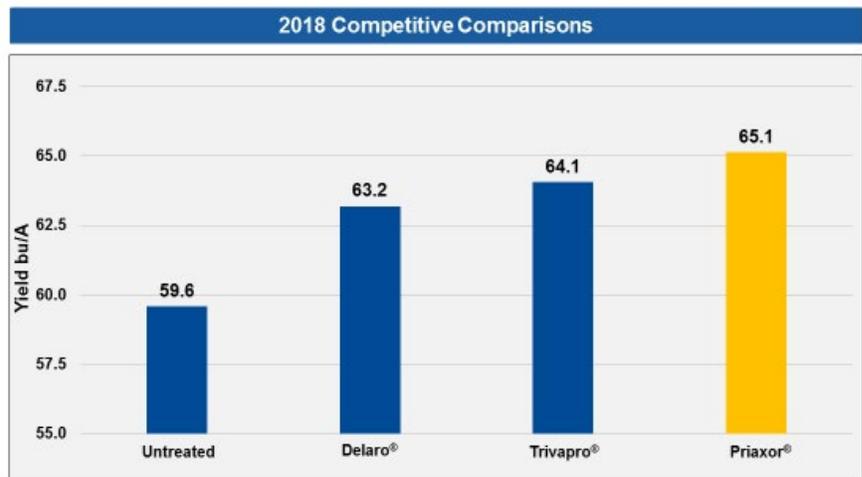
- Presence of a 3/16 inch pod at one of the four upper nodes on the main stem with a fully developed trifoliolate leaf node
- Yield potential being determined by pods per acre, seeds per pod, and weight per seed

R4 Stage

- Presence of a 3/4 inch pod at one of the four upper nodes
- Final yield is being determined
- Stresses during and after this stage reduce yields the greatest amount

Remember your growth stage for the

Priaxor® Fungicide Performance – NE/IA Results



2018 Research Trials. UNL-1, BASF-1, ISU-1 (n=3). Applications made at R2-R4. Delaro® = 8.0 fl oz/A, Trivapro® = 13.7 fl oz/A, Priaxor® = 4.0 fl oz/A.

Figure 1: Priaxor is a registered trademark of BASF Corporation. Delaro is a registered trademark of Bayer. Trivapro is a registered trademark of Syngenta.

field is what the majority of the field is at, not that one “early” plant or spot in the field that is ahead of other plants/ areas.

Priaxor® Fungicide for Soybeans

In soybeans, the reproductive stages are more susceptible to yield loss from stress than the vegetative stages. Once the plant hits the ‘R’ growth stages, the plant is determining seeds per pod and weight per seed at the same time.

These yield components combined with pods per acre all come together at the R3 growth stage, and that also happens to be the same time as our optimal Priaxor® fungicide application timing of R3 to R4.

Priaxor® provides the Disease Control – stem canker, frogeye leaf

spot, white mold, septoria brown spot – coupled with the superior Plant Health – growth efficiency (photosynthesis, water use, nutrient use), stress tolerance, pod retention – required to protect all that the soybean plant has worked toward in terms of yield throughout the entire season.

Historical data has shown yield increases of +5.0 bu/A from Priaxor® and, in 2018, Priaxor® increased soybean yields an average of 5.3 bu/A and outyielded its competitors in trials across Nebraska and Iowa. (Figure 1)

The consistency of yield results from Priaxor® has made it the most widely used fungicide for soybeans.

— Brady Kappler,
BASF Technical Services Rep

NEBRASKALAND AVIATION

A SUCCESSFUL 2019 CROP

WHAT TO EXPECT THIS WEEK

Early Corn Treatments Show Best ROI

This past year, one of the “Urban Legends” we worked to debunk was the “Brown Silk application.” Almost all our tassel time applications were timed for a specific stage, which was tassel emergence or VT. This timing has provided our best ROI year in and year out. The PHC proved this stance once again by providing an average of 12.5 bu/acre to growers last year.

I received several phone calls the past few days from growers asking if they should wait until after pollination to spray. The answer is NO! Once we have pollinated, that corn plant is now in the R2 growth stage and there are two stages of growth (VT and R1) that don't have the stress mitigation and plant health benefits from the Headline AMP® application!

We have just missed out on the peak potential of the plant! We have heard several reasons in past years why some prefer to wait, but it simply isn't the right call in almost all situations. These stages are the most stressful

Urban Legend: Arrested Ear Syndrome

“Don't spray until brown silk or you will have pollination problems and or arrested ears.”

Treated - VT	Untreated
Headline Amp. Koz.	Kernel Count:
Kernel Count:	U1 - 45x8 15.3oz
T1 - 43x20 15.3oz	U2 - 43x20 17.2oz
T2 - 45x20 18.9oz	Shell Diameter:
Shell Diameter:	U1 - 1.108"
T1 - 1.183"	U2 - 1.177"
T2 - 1.114"	

Tassel Treatment (Hail Damage)	Untreated
Plant Weight of Plant	Weight of Plant
Plant 1: 35oz	Plant 1: 20oz
Plant 2: 40oz	Plant 2: 25oz
Weight of Ear	Weight of Ear
Plant 1: 4.5oz	Plant 1: 2.6oz
Plant 2: 4.2oz	Plant 2: 4.3oz

In 100 pre-tassel and tassel treatments we documented 0 arrested ears, and 94% of treatments resulted in higher

stages a corn plant faces. Why take the chance with Mother Nature when we have a tool that we know helps reduce the stress of the plant?

If late season residual is your concern, please look at our 14.4oz high rate of Headline AMP or maybe even a second treatment post tassel.

These looked impressive in a small amount of PHC fields last year that received a VT high rate app or a second post tassel app. We are also have trials out this year to provide some more data on these treatments.

— Dusty Knuth,
BASF Business Services Rep

2018 CORN PHC SHOWCASE

Tassel Treatment Boosted Yield 28 Bushels/Acre

Location: Webster County

Plant Date: 04/23/18

Seed: Pioneer 1370AM, Pioneer 0950AM & Golden Harvest G10S30-3220

Treatment & Timing: Headline AMP 10 oz. at 1,553 GDU (VT)

This field was planted on April 23, 2018, with the rows running east-west. On July 13, we aerial applied a strip of Headline AMP™ fungicide across the rows running north-south to hit all three

of the Pioneer and Golden Harvest hybrids planted on this farm. The results were impressive, as all three hybrids responded significantly to the fungicide treatment. When we averaged the three hybrids together and compared treated vs. untreated, there was a 28.4-bushel difference. Using a current local December cash price of \$4.13, this 28.4-bushel increase gave this a cooperater a 421% ROI or \$94.79/acre in TDR.

— Tony Marquardt

