

- Syngard 15w40 - synthetic blend motor oil at reduced price. Available in bulk!
- Lewis Hybrids and Mycogen Seeds continue to win plots. Order 2010 seed today!
- Schedule fall NPK application during harvest delays and be at the "top of the list" when field conditions permit application!

LOGAN AG NEWS

Diplodia – Corn Disease Of The Year

Wet and warm weather conditions + high kernel moisture + damaged kernels = ear mold.

Diplodia ear rot, characterized by bleached or straw-colored husks and white mold initiating at the base of the ear and growing between kernels, wins the award as the most prevalent disease in corn in 2009.

Diplodia can develop when excessive moisture is observed within 3 weeks after silking. Damage to kernels from insects or birds often provides a pathway for the disease to infect the ear.



Figure 1 – *Diplodia* ear rot

Some corn hybrids are more susceptible to injury from *Diplodia*. Occurrence is most frequent in fields of continuous corn with reduced tillage practices where previously infected stalks overwinter.

As with all diseases that overwinter in stalks, management of corn residue is imperative, beginning with sizing of stalks (shredder or one-pass tillage tool) to facilitate decomposition over the winter. Crop rotation, hybrid selection, proper fertilization and deep tillage also aid in disease management.

Address Fertility Issues After Harvest

Last fall's high P and K prices are only memories. DAP, in some instances, is \$850 per ton less than a year ago. Potash is more than \$350 per ton less than year-ago price levels. For those who reduced or eliminated P and K application for the 2009 crop, **now** is the time to address the nutrient deficit.

On average, P soil test levels are reduced by 1 LB per acre (2 parts per million) for every 9 LB P₂O₅ removed by the crop. K soil test levels are reduced by 1 LB per acre (2 parts per million) for every 4 LB K₂O removed by the crop. To illustrate, **200 bushels corn** removes 86 LB P₂O₅ and 56 LB K₂O. Expressed another way, the crop **removes 187 LB DAP and 93 LB potash**. If no fertilizer was applied to that crop, the P soil test level would drop 9.5 LB and the K soil test level would drop 14 LB. **60 bushels soybeans** removes 51 LB P₂O₅ (**111 LB DAP**) and 78 LB K₂O (**130 LB potash**). If no fertilizer was applied to soybeans, the P soil test level drops by 5.6 LB and the K test drops by 19.5 LB. These removal rates can be pro-rated higher or lower from your crop yields.

For producers who skipped fertilizer application for the 2009 crop, you must apply P and K to the 2010 crop unless you have extremely high soil test levels. Failure to apply adequate nutrients could significantly impact grain yield. Several incidences of nutrient deficiency, both P and K, were observed by scouts this year.

Soil tests are recommended,

especially where 2009 fertilizer applications were reduced or eliminated. Your Logan Ag crop specialist can arrange soil tests of your farm or individual fields with Maxi-Yield Consultant Service. If you have recent (within the past two years) soil tests, our Certified Crop Advisers will review to make specific recommendations for cropping rotations in 2010.

Obtaining maximum yields from today's corn hybrids and soybean varieties requires proper fertilization. Fertilize for profit in 2010.

Logan Ag Plot Results

Logan Ag corn plots performed very well in spite of wet areas and reduced stands. 13 trials in the variety plot averaged 226.35 bushels. Lewis 910 VT3 averaged 233.65 bushels in the population/nitrogen study, while Lewis 914 VT3 averaged 242.52 bushels in the same study.

Lewis Hybrids in the variety plot were 914 VT3, 910 VT3, 1009 VT3, 1012 VT3 and 1013 VT3. Mycogen hybrids in the plot included 2E696, 2H697, 2V732 and 2G847. Also included were two Moews hybrids – 3618 VT3 and 3637 VT3.

Moews 3618 VT3 was the plot winner at 252.55 bushels. Lewis 1012 VT3 topped the Lewis group at 244.88 bushels, while Mycogen 2V732 won the Mycogen grouping at 232.84 bushels. Lewis 914 VT3 was utilized as a check hybrid, and varied by nearly 20 bushels per acre in 3 strips throughout the plot due to wet areas in the middle of the field. The plot was planted April 22 at 38,000 in 22" rows.

Again, wet areas in the center of the field foiled some of the research conducted in the

population/nitrogen study. In this study, two hybrids were planted in strips ranging from 34,000 to 46,000. Nitrogen was applied perpendicular to the rows with the total N rate ranging from 208 LB to 298 LB. We expected increased bushels of production from higher population and nitrogen levels. However, there was no consistency to either population or nitrogen rate. The top yield in the plot was 268.01 bushels in 914 VT3 planted at 34,000 with 268 LB nitrogen. The low yield in the plot was 217.97 bushels in 910 VT3 planted at 34,000 with 238 LB nitrogen applied.

In each replication, higher nitrogen rates yielded a corresponding decrease in moisture content. Certified Crop Adviser Ed Logan concludes that N-Serve® nitrogen stabilizer was responsible for this occurrence. When anhydrous ammonia was applied last fall, N-Serve® was added for the lowest application rate of nitrogen. As the same nurse tank was utilized throughout the plot area with rates of nitrogen adjusted on the monitor, more N-Serve® was applied to the field in the higher nitrogen trials (greater than the 1 quart per acre recommendation). N-Serve® applications in previous years of testing have consistently resulted in reduced harvest moisture at the 1 quart rate.

Site specific fertilizer application prevents duplication of this plot in the same field in 2010. However, Logan Ag will determine if a similar plot is feasible in an alternate location. ®N-Serve is a trademark of Dow AgroSciences LLC.

Minimize Cold Weather Issues In Diesel Fuel

Harvest for many growers will

continue into November and possibly December. Cold weather conditions may impact operability of diesel powered equipment. Proper fuel additives can minimize fuel related issues.

The fuel industry utilizes several terms that comprise the basics of understanding cold weather properties of diesel fuel. **Cloud point** is the temperature where waxy particles in diesel fuel begin to crystallize, giving the fuel a "cloudy" appearance. **Cold Filter Plug Point (CFPP)** refers to the temperature where fuel will not flow through a filter. The key term is **operability**, or the temperature where fuel still flows through the filter.

The cloud point of #2 diesel fuel is 6° F. #1 diesel fuel has very little wax, and has a cloud point of approximately -40° F. B11 biodiesel, the most commonly used fuel in Illinois, has a cloud point of approximately 16° F. Cold flow additives lower operability 12-20 degrees below the cloud point. The key to winter operability is to reduce the cloud point of the fuel to prevent the formation of wax crystals. Each 10% increment of #1 diesel blended decreases the cloud point by 2-3° F. Reducing the blending percent of biodiesel also reduces the cloud point. For instance, using B2 instead of B11 likely reduces the cloud point by as much as 8°.

Here is the Logan Ag plan for winter success:

1. *Replace filters at beginning of cold season*
2. *Check water separators daily*
3. *Keep storage and equipment fuel tanks full to minimize condensation*
4. *Fill up with B2 biodiesel or #2 diesel, blended with up to 30% #1 diesel plus cold flow additive*

Contact Logan Ag for quality diesel fuel and cold flow additives.