

See Troy or Wayne in Griggsville for Lewis and Mycogen seed corn and soybeans. See Steve in Star City for Mycogen corn and beans.

# LOGAN AG NEWS

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and 40-60 PSI for best control of aphid populations.

## Aphids In 2009?

**N**ine years ago, soybean aphids migrated to the United States from Asia, and have since become a major pest in most bean producing areas. The small, yellow insect can be found on stems and leaves of young soybean plants, and on the underside of leaves of mature plants. A secretion, "honeydew", interferes with photosynthesis and may stunt plants resulting in reduced pod and seed counts.

Once thought to be a biennial pest, only causing problems every other year, it appears that cycle was possibly broken in 2008. Fall 2007 capture numbers were low, but western soybean producing areas experienced severe infestations in 2008 anyway. Last fall, very high numbers of aphids were caught in Midwest suction traps. This high capture leads to predictions of problems in 2009. High numbers of aphids have reduced soybean yields by as much as one-third.

Aphids have as many as 18 generations annually, potentially resulting in huge populations of as many as 3000 per plant. Reproduction rate peaks in moderate temperatures and drops dramatically when daytime temperature hits 90°. Presumably, aphids die at temperatures of 95° or higher. Additionally, there are several natural predators including lady beetles (not bean leaf beetles) to help control the population.

Entomologists agree that the treatment threshold for aphids is approximately 250 per plant at the R1-R2 growth stage. Many of the common liquid insecticides provide contact and short-term residual control. Insecticide applications provide the greatest benefit when made during or immediately after flowering. Late summer applications, made after pods are filled, will not prevent yield loss. Logan Ag crop specialists recommend high water volumes

Contact your Logan Ag crop specialist for more information on scouting and treatment of soybean aphids in 2009.

## Higher Corn Plant Pops – Added Expense Or Profit Potential?

**S**eed corn representatives promote higher planting populations on many of the new hybrids in 2009. Are they just attempting to sell more seed, or can increased populations be justified at harvest? Research tends to support higher planting populations with some hybrids.

Data from 2008 trials across Illinois indicated increased yield from triple- and quad-stacked hybrids with higher populations up to 38,000. Yield from non-GMO hybrids and/or Roundup Ready Corn 2 hybrids topped at plant populations of approximately 33,000. Keep in mind these populations represent final stand counts. Obviously, the stacked trait hybrids are better equipped to tolerate insect stress (rootworm and European corn borer), leading to better root systems and stronger stalks. The enhanced root system is thus able to access more nutrients from the soil, and produce higher yields.

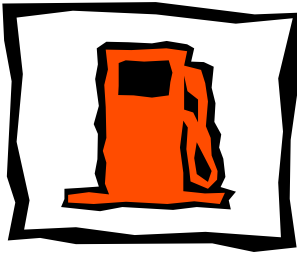
The bottom line? Stacked hybrids may produce yield increases of 5 to 20 bushels per acre or more by uniformly planting an additional 5000 seeds per acre, making the increased population profitable even at today's seed corn prices.

## It's Common Sense

**M**ost fuel distributors recommend use of premium diesel fuel. The reasons to use premium diesel are many, and the benefits far

outweigh the few cents per gallon additional cost.

In the past, high sulfur diesel fuel was designed specifically for use in off-road equipment. With today's Ultra Low Sulfur Diesel (ULSD), many farm and off-road equipment manufacturers recommend the use of premium fuels.



ULSD and biodiesel blends including B11 are less stable and degrade in quality more quickly than traditional high sulfur diesel. Less stable fuel results in the formation of gums that lead to injector deposits or sediment that can plug fuel filters. The deposits in the injectors may alter the injector spray pattern and fuel-air ratio, possibly resulting in decreased power and fuel economy. Sediment in diesel fuel is the most noticeable aspect of ULSD as engine manufacturers have decreased the micron size of fuel filters dramatically in recent years. The tighter filtering systems allow fuel to clog the filter much more easily.

Bacteria have become a greater issue in fuel as well. Reduced sulfur content, as well as moisture (condensation) resulting from a reluctance to keep farm storage tanks full, has increased the incidence of bacteria problems.

The benefits of premium diesel fuel are many, provided your fuel distributor is supplying a high quality premium additive.

- ✓ **Detergency** – insures clean injectors and uniform spray pattern that enables fuel to completely combust and improve fuel economy.
- ✓ **Lubricity** – sulfur was the lubricity agent in high sulfur

(500 parts per million) diesel fuel. ULSD, with its lower sulfur content (15 parts per million), does not protect internal engine components as well.

- ✓ **Increased cetane** – cetane is helpful in the initiation of fuel combustion and shortens the ignition delay period. Higher cetane fuel provides for smoother running engines and decreases white smoke, as well as increasing power and improving fuel economy.
- ✓ **Reduced moisture** – regular use of premium diesel helps disperse condensation in the fuel storage tank, and inhibits the growth of fuel bacteria. (If bacteria are already a problem, see Logan Ag for Kathon® FP 1.5 Fuel Biocide).

Logan Ag recommends premium diesel fuel, and we use it in our own equipment. Call Phil Ruble at 1-800-LOGAN AG and fill 'er up with **Logan Ag Premium Diesel!**

## 2,4-D Burndown Reminders

No-tillers commonly use 2,4-D in combination with glyphosate to facilitate burndown of winter annuals and spring emerged weeds prior to planting. 2,4-D provides better control of dandelion, horseweed and winter annuals, as well as improved control during cool weather conditions compared to glyphosate alone. There are, however, some 2,4-D restrictions that must be noted as planting season approaches.

Injury to emerging corn and soybeans can occur from application of 2,4-D close to planting. For corn, labels suggest application up to 1 quart per acre of 4 LB LVE (low volatile ester) 7 to 14 days prior to planting. In soybeans, a 7 day interval is required between an application of 1 pint per acre of 4 LB LVE and planting. Soil type, planting depth,

2,4-D rate and rainfall impact how much herbicide reaches the germinating seed. Following these restrictive guidelines minimizes the risk of crop injury.

2,4-D has a distinctive odor. To ensure safe planting, Certified Crop Adviser Edward Logan suggests smelling the soil to determine if the odor of 2,4-D remains. If the odor is present, it's probably not safe to plant soybeans.

If producers are unwilling to delay planting for the recommended time period following 2,4-D application, there are alternative methods to control existing vegetation. Gramoxone Inteon®, applied at the rate of 2.0 to 3.5 pints per acre, may be substituted for the glyphosate/2,4-D combination with no planting restrictions. Aim EC®, applied at the rate of 0.5 to 1.0 oz. per acre in combination with glyphosate, provides rapid burndown of tough weeds with no planting restrictions. Your Logan Ag crop specialist can assist you with the selection of appropriate burndown herbicides.

Gramoxone Inteon® is a registered trademark of Syngenta Crop Protection. Aim EC® is a registered trademark of FMC Corporation.

## Rainfast Time

Many pesticides require a period of time without rain, commonly called rainfast time, for maximum performance and effectiveness. The table below lists some widely used products and their respective rainfast times.

PRODUCT	RAINFEST (hours)
Aim EC	1
Callisto	1
Classic	1
Crossbow	2
Durango	1
Glyphosate loaded	1-2
Hornet WDG	2
Ignite	4
Phoenix	2
Roundup PMAX	1-2
Roundup WMAX	0.5
Select Max	1
Status	4
Synchrony	1
2,4-D ester	1-2