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Dedicated to Excellence in Growing Crops



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What a Spring!!! - Les Widmer, CCA

WHAT DIFFERENCE WILL 30 DAYS MAKE?

Will a delay of about 30 days from normal planting timing make a difference in how your crops will grow and develop this year? All have seen I am sure the studies that show when planting date is delayed past ideal times, specific amount of bushels are lost per day based on long term averages in specific growing areas. As we are all aware, so much of what will happen this season will be determined by weather conditions for the remaining growing season. The OARDC recently published a summary of late April/ May planted corn compared to early June planted corn in NW Ohio over the period of time from 2005 through 2010.

The following were the results:

2005 (-25%); 2006 (-6%); 2007 (+3%); 2009 (-19%); 2010 (-6%)

As can be seen, there can be a significant difference from planting dates in a given year. Based on these results on high productive fields, yields varied from minus 50 bushels per acre to plus 3 bushels per acre for the June planted corn. We all know that timing of summer rains will make a significant difference in the final results for this year's crops. But, what other factors influence your crops outcome from delayed planting?

One of the significant effects that delayed planting has on your crop is the effect it has on the ability of the plant to develop a strong root system. Two significant factors influence the plants roots:

The first is soil temperature. Plant roots grow best in 60 degree soil temperature, and with June planting instead of April/May, plant roots will not expand or establish their delicate hair roots as easily in 80 degree or warmer soil temperature. Normally by mid June corn and soybeans have developed a pretty good canopy over the soil keeping the direct sun from hitting the soil surface – (instead the leaves should be catching the sun to produce energy) – and the soil would not be getting as hot when the sun is at its peak during the longest days of the season. How well a plant can develop its root system during its vegetative stage of development has a big influence how well it will finish its grain filling stage of development, which of course is what you are after – grain yield, bushels per acre.

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Care should be taken when harvesting wheat from scab-infected fields to reduce the amount of scabby kernels and level of vomitoxin in the harvested grain and avoid potential health problems for combine operators and grain handlers.



Do you apply chemicals on your own farm?

“HOOK” is a new product offered by W&A that is actually an adjuvant capable of spreading and enhancing chemical penetration into the plants. It is capable of making the active ingredients in your spray mixture behave as a surfactant.

“HOOK” offers superior adhesion to plant surfaces, improved contact activity which means more efficient spreading and penetrating power to your active ingredient without adding a lot of soap. Contact W&A for information on prices.

Tips on Harvesting Wheat with Scab— *Dusty Sonnenberg, CCA*

**Adapted from C.O.R.N. 2010-18*

Avoid breathing in dust from scabby wheat fields by using a dust mask. The harvest operation usually produces huge dust clouds. In the cloud coming from scabby wheat fields are spores of the scab fungus (*Fusarium graminearum*) and small pieces of scab-infected and vomitoxin-contaminated plant parts. Inhaling these particles may cause health problems.

Turn up the air on the combine to blow out scabby kernels. These kernels are usually lighter in weight than non-infected or healthy kernels and as such will be blown out of the back of the combine if the air is turned up, reducing the amount of scabby kernels and vomitoxin in the grain lot.

Harvest areas or fields with the most scab first and keep that grain separate from the rest. Since the level of vomitoxin in infected grain may increase if the grain is exposed to wet conditions leading up to harvest, if rain is in the forecast, it may be better to harvest scabby fields at a slightly higher moisture content than to wait for grain to dry down completely in the field. However, this grain still needs to be dried down and maintained below 15% moisture after harvest to prevent fungal growth and vomitoxin buildup in storage.

Get grain from scabby fields tested for vomitoxin before feeding, before making a decision to discard suspect grain, or before blending.

I sprayed...why do I have Wheat Head Scab?— *by Dusty Sonnenberg, CCA*

Q. *Why do I have Wheat Head Scab if I applied fungicide?*

A. A foliar fungicide application between flag leaf emergence and heading usually provides the best control of powdery mildew, Septoria, and Stagonospora blotch; however, this relatively early application **will not** provide adequate protection against scab and vomitoxin if favorable conditions occur during flowering and early grain fill. Fungicide application for scab and vomitoxin suppression **must be made at flowering.**

The scab fungi spores are produced rapidly during warm, moist weather on corn and small grain residues infected from previous years. Spores are produced and discharged into the air as the fungus wet and dry during weather changes. Air currents carry these spores to the flowering spikelets of the wheat crop. The spores will germinate in the “free water” on the surface of the spikelet and invade the flower. **Infections are most serious when the anthers are exposed during flowering.**

Symptoms develop in as little as three days after infection when temperatures range from 77 to 85 degrees F and humidity is high. Within 7 to 10 days after infection, salmon-pink masses form at the base of the diseased spikelets. These can be blown by the wind to the heads of other cereal or grass plants producing new secondary infections. This continues as long as the spikelets are susceptible and moist weather continues. Wheat flowering date and weather conditions at that time are critical in the infection occurring. Timing of the fungicide application is imperative to reduce the scab infection. Infected wheat residue can cause issues for a corn crop in the same field the following year if the residue remains.

*Information from Dr. Pat Lipps, OARDC

What difference will 30 days make???* - Les Widmer, CCA *continued from page 1

The second difference is day light length and heat units. These effects do have some differences in how they impact corn verses soybeans. In the corn plant with delayed planting, it will try to compensate and speed up its maturity compared to a normal planting period due to higher heat units during its early stage of growth and also longer day length during its vegetative growth period. This will come at a price in that the plant is using more of its energy in growing its plant leaf growth faster – (and usually taller) – at the expense of less energy being available for growing its roots. Again, less root development usually means less water and nutrients available for the grain production. In respect to soybeans, since we grow in -determinant varieties there is not as a clear cut stage of growth for plant growth and grain formation. But, soybeans are very day-length maturity influenced, and depending on the specific maturities being grown and the time of planting, all soybeans planted later than our ideal April/May time period will have less time to grow and manufacture energy to be able to put into seed production.

Another significant factor that can also influence your crop from planting later into the season is the following:

Both the corn plant and the soybean varieties that we raise are very temperature sensitive during their reproduction and grain fill period of growth. Any heat stress during pollination and following grain fill caused by temperatures rising above 85 degrees or combinations of stress from heat and low soil moisture will cause significant decrease in final grain yields. The risk and the chances of having higher temperatures and drier soils for later planted crops is greatly increased.

So, considering these factors that can influence later planted crops, a question that can be asked –

IS THERE ANYTHING THAT CAN BE DONE TO MINIMIZE THESE NEGATIVE CONDITIONS?

Widmer & Associates carry's a broad range of nutrient and plant growth regulator product chemistry that can achieve and produce specific effects in plants. Based on specific factors influencing a crops growth and development, our agronomists can offer specialized products that best fit your crops needs. It may be best in vegetative crop growth stages to help stimulate more root growth and our product BioForge has proven to do an excellent job of developing stronger root development and helping to reduce plant weather stresses. Another line of products are proving very beneficial in minimizing yield loses from heat and moisture stress during a crops pollination and grain filling period.

Our programs are proving themselves more and more each year and with current grain price levels are proving to have a very high ROI. Don't let the weather completely dominate your crops return on your investment. Ask our agronomist to help explain some of your possible options to help minimize the impact on your later planted crops.

Widmer & Associates, Ltd.
953 E. Madison St.
Gibsonburg, OH 43431

SMS Training

Tuesday, July 26th, 2011 - 8:30 a.m. to 4:00 p.m.
W&A Precision Ag. Office, 953 E. Madison St., Gibsonburg
Reservations Required - Phone (419) 637-4094

www.widmerassoc.com

Food Safety & Traceability - *Rex Marquart, CCA*

Water Usage

- 1) Water can be used for irrigation, frost protection, rinsing the crop and a carrier for pesticides, fertilizers and growing aids.
- 2) Water can be a vector for microbes including human pathogens (E. coli, cholera, listeria, salmonella, etc.)
- 3) Water can be sourced from District pipelines, wells, open surface sources (ponds), rivers and ditches.
- 4) Water is to be sampled at the beginning of each growing season and sampled monthly after planting if a surface water source is used.
- 5) If a filtering system is used, the sample should be taken after the filters.
- 6) If a filtering system is not used the sample should be taken at some point after the pump. Ideally at the water entrance to the field.
- 7) The samples are to be analyzed for Generic E Coli. If there is a positive detection of Generic E Coli, the same sample is to be tested for E Coli 0157H7



- 8) The water can be treated with a chlorination system as a possible mitigation measure. The water then needs to be re-sampled after the chlorination process.
- 9) The risk of most concern is the water that comes in contact with the edible parts of the vegetables and fruits

