

Burrus Buzz

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Twisted Whorl Syndrome ~ Don Rhoads

Some fields have a very small percentage of plants with yellow tops. This is caused by “twisted whorl syndrome.” This phenomenon usually occurs when corn in the V6 to V7 stage experiences very rapid growth. The upper leaves do not unroll properly, and when they finally do, the newly exposed leaves remain yellow for a short period until chlorophyll levels increase in the leaf tissue. The cause remains a mystery, but seldom, if ever is yield compromised.



Check The Labels ~ by Don Rhoads

There are label restrictions for maximum age or size for Roundup Ready or Liberty Link corn being sprayed with Roundup or Ignite.

When spraying Roundup Ready corn with Roundup (Glyphosate) over the canopy broadcast, do not exceed V8 or 30” tall. With drops, 48” corn may be sprayed. For Liberty Link corn, the maximum height is 24” for broadcast over the canopy and 36” tall with drops. These restrictions are on the label to minimize injury potential to the crop. Ear development can be compromised with out-of-label applications of these products.

Soybeans and Atrazine? ~ by Don Rhoads

With all the rain in some areas, some growers are switching their last corn acres to soybeans. We are getting the question “Can I plant soybeans on soils with Atrazine already applied?” Our first statement is “it’s illegal.”

In reality, if planting soybeans becomes the only choice, there are a few things to consider:

1. How much atrazine was applied? Soybeans may be able to survive with 1 to 1 1/2 lbs. applied if several inches of rain have fallen since application.
2. Tillage might help if soil conditions permit.
3. Increase planting rates 10 to 15%.
4. Larger soybeans can withstand atrazine injury better.
5. Atrazine is more readily available in high pH soils, therefore resulting in more injury potential.

Calculating Growing Degree Days ~by Don Rhoads

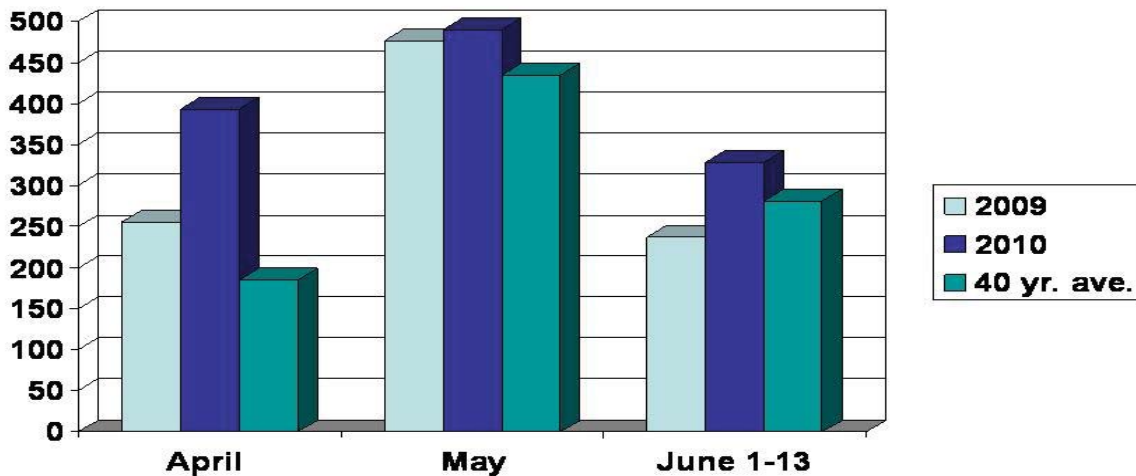
Too much rain in some areas has delayed plantings and caused corn to remain yellow. Kevin Buford of Kahoka Missouri reports 30" of rain since April 1st. A recent article in the Burrus Buzz addressed the reason for the stunted, yellow corn. The earlier planted corn fields with adequate drainage are showing much improvement. The abundance of moisture and high temperatures has allowed the corn crop to grow at a record pace throughout the Midwest. The rate of corn maturation is temperature dependent, and is calculated using growing degree day units. The formula is:

$$(\text{high temperature} + \text{low temperature})/2 - 50 = \text{GDD}$$

86° F is the maximum used for the high, and 50° F is the minimum used for the low. In other words, a high of 93° would be recorded as 86° F and a low of 45° F would be 50° F in the formula. As an example, a typical June day may have a high of 85° F and a low of 65° F. The GDD's would be $(85 + 65)/2 - 50 = 25$ GDDs.

The graph shows that the Midwest is well ahead of last year and the 40 year average. If this pace continues, pollination could begin in late June for the earliest planted fields. Even later plantings can utilize the good growing conditions to maximize growth rates. A more timely harvest would be welcomed.

Growing degree day comparisons Central Illinois and North-Central Missouri



Stunted corn in high residue environments ~ by Craig Kilby

Field areas experiencing persistent saturated soils contain extremely low levels of oxygen resulting in minimal root growth, and even in severe cases root death. This condition generally becomes evident at V4-V5 stage as the plant's dependence on energy shifts from the seed to its nodal root system. Plants with inadequately developed nodal roots abruptly stop growing and lower leaves begin turning yellow from lack of nutrients. Similar symptoms can be the result of root damage from rootworm feeding, nematodes, or disease. Management practices which would improve root and plant health include post applications of nitrogen close to the plant roots and row cultivation to break up compacted soil allowing air and heat to promote root growth.

European Corn Borers Sighted ~ by Craig Kilby

Contrary to what some believe, this insect is not yet extinct in the corn belt. First and second instar European Corn Borer larvae are being found in central Illinois and Missouri and will soon be hatching in the northern areas of Illinois and Iowa. While not expected in great numbers this year during first generation, keep a close eye on your unprotected acres. Also, watch the Buzz for more information as second generation time comes around.

Corn Rootworm Larvae Hatch Underway in Most Areas of Illinois & Missouri

~ by Craig Kilby

Yet another insect not on the endangered species list. Areas of the cornbelt where this insect presents harm to corn plants should either have Bt, planter-applied insecticide or high rate seed treatment protection. Performance could be subject with all three this year thanks to poor early root growth, and excessive rainfall since planting. The levels of Bt and translocated insecticide protection may be compromised where roots have little growth occurring. In areas of high rainfall since planting, liquid or granule insecticides may have leached out of the root zone. If these conditions existed on your farm, take time to assess your rootworm control performance by inspecting roots after the start of rootworm adult emergence.

Delayed Planting Soybean & Yield Potential

Yield Effects from Delayed Planting (Uniform Stands)

Planting Date	Yield as a % of Normal for	
	Mid-Season Variety	Full-Season Variety
May 20	100	100
May 30	96	94
June 10	92	90
June 20	82	78
June 30	70	Not Recommended
July 10	60*	Not Recommended

*In Indiana, south of Interstate 70 only.

Source: Purdue University

