Pioneer Talks Crops

Welcome to Pioneer Talks Crops.

This information is provided by the Pioneer agronomist serving your area.

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Growers have experienced one of the wettest springs on record in the upper mid-South this year. Corn has struggled to recover in many areas. Most fields were in anaerobic conditions for extended periods of time. The plants could not utilize the available nitrogen (N) and growers potentially have lost some N due to denitrification in those fields. Some areas have N loss due to leaching in the sandiest soil types. Ammonium forms of N fertilizers bind to soil clay particles. However, ammonium fertilizers convert to nitrates in soil rather quickly if soil temperatures are higher and soils are more saturated. Complete conversion can occur in as little as four weeks under the right conditions. Nitrogen in the nitrate form is then leached down and lost through the soil profile.

This may be a good year for growers to consider a late side-dress or pretassel application of N in the upper mid-South and Delta areas. However, these late-season N applications should be applied only to high-yield fields with a yield potential greater than 170 bushels per acre. A pretassel application of N should be applied at about two weeks prior to tassel. When the corn is 4 to 5 feet tall, tassel emergence is approximately 10 to 14 days away. Prior to a rainfall event or irrigation, 100 to 125 pounds of urea treated with AGROTAIN® can be applied to a firm and crusted soil resulting in good N use efficiency. AGROTAIN is an excellent N stabilizer that reduces the amount of N loss through ammonia volatilization. Rainfall or irrigation water moves the intact urea molecule into the soil where microorganisms convert the molecule into ammonium and nitrate ions, forms which are available to the plant. Urea applied after the dew has dried will usually result in less leaf margin burn.

This year, there has been a fair amount of corn that appears to be buggy whipped or has struggled to unfurl. This is called “rapid growth syndrome” or “twisted whorl.” This commonly occurs in corn at growth stages V4 to V8 where growing conditions have changed from cool to warm in a short period of time. The plant begins to grow so rapidly that the leaves are unable to unfurl properly for a time. The plants eventually unfurl and growth continues normally from that point on. Growers may see yellow tops on some plants once they unroll. These plants stayed wrapped up longer than others and became chlorotic. The yellow tops eventually turn green when exposed to sunlight for a time. Yield rarely is affected from rapid growth syndrome. Some genetics may show more symptoms than others, but the symptoms should pass with time. Δ