Pioneer Talks Crops

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The big news recently has been the above-average temperatures in this region the past month or so. Warmer temperatures have allowed us to catch up on GDUs across the area. Many cornfields are at or nearing tassel, while wheat harvest is well under way in the upper mid-South. We must pay close attention to some key management details as the corn crop approaches pollination and grain fill.

Irrigating corn on a timely basis is critical. Essentially all corn acres in the upper mid-South are close to or are at peak period of water usage. Corn water use increases rapidly from the 10th leaf stage and reaches peak usage at pollination. A 40 percent yield reduction can result from water stress two weeks before to two weeks after silking. This is a higher potential loss than similar stress during any other period of growth. If a field of corn is twisting, then you're behind on watering. The corn plant requires close to 2.5 inches of water per week from pollination through milk stage. Irrigate every four to five days during peak periods if using the furrow method, and don't turn off pivots unless significant rainfall occurs. Continue irrigation until physiological maturity (black layer) or at least until three-fourths milkline.

Fungicide use in corn has become a standard practice for growers who want to achieve optimum yields. Some growers do not treat every acre of corn but will focus on fields they think will have the greatest benefit from the fungicide applications. I recommend growers target fields with high residue, especially corn following corn. Growers also may want to target fields planted with hybrids that are weak in disease tolerance. Diseases such as gray leaf spot and northern leaf blight seem to be the most common in recent years. Late-planted cornfields also may see a benefit from fungicide applications. Fields that have a later planting date seem to have a higher incidence of disease pressure earlier in the grain-filling period. Also, it would be wise to consider fungicide applications in areas that have a history of higher disease pressure such as low-lying areas or fields close to rivers where frequent leaf wetting would occur.

Many growers are asking for soybean replants. Hard-packing rains and high rainfall totals have caused issues in some areas. Typically, fields that have received this kind of treatment from Mother Nature within 48 hours of planting are at more risk to be replanted due to diseases or crusting. These hard-packing rains compact the soil surface making it difficult for the hypocotyls to straighten and break through. After several days of trying to break through, the hypocotyls swell and eventually break. It is critical to assess the whole field when trying to decide whether to replant. Some areas of the field may be worse than others. Uniformity is a critical criteria in this decision. A fairly uniform stand can be lower in population than a stand that is not uniform, yet higher in population. The University of Missouri Corn and Soybean Replant Decision Guide states that uniform soybean stands will maintain nearly full yield potential at 80,000 plants per acre and above. Δ