Pioneer Talks Crops

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There has been a wet pattern in early to mid-April in southeast Missouri with frequent showers and short planting windows. However, some corn acres have been planted in the upper mid-South, and overall the region is experiencing slightly above-average temperatures for this time of the year. Hopefully, fields will dry soon so corn planting can be completed.

Last fall was one of the wettest on record in this region. Growers reluctantly left ruts in many fields throughout the whole area, and in many cases, did not have an opportunity to work them in. Field compaction may be an issue this year, and it is important to take caution in working fields so the problem isn't made worse. Deep tillage and natural freezing and thawing or wetting and drying cycles often are mentioned as solutions to soil compaction. However, experts point out that only the top 1 to 5 inches of soil generally receive more than one freezing and thawing cycle per year.

Freezing and thawing can remediate only shallow compaction in a timely manner. Wetting and drying cycles are more frequent, but less effective, in relieving compacted soils. Therefore, it may take many years for natural forces alone to repair deep compaction. For compacted soil layers deeper than 5 inches, soil experts usually recommend using deep-tillage equipment to fracture the compacted zone. This must be attempted only when soils are dry, as deep tillage when soils are wet will only add to the problem. Soil conditions suitable for deep tillage on medium to heavier soils are much more likely to occur in the fall than in the spring in humid areas.

Corn emergence requires 110 to 130 growing degree units (GDUs) under ideal conditions. That can take from five to 20 days or more depending on soil temperature and other conditions. Optimum temperature for corn emergence is 80 to 90 F and emergence is reduced or halted around 50 to 55 F. Average soil temperatures at 9 a.m. in southeast Missouri have now reached 60 F as reported by the University of Missouri Delta Center. Corn emergence at 50 F can take 20 days or longer pending other weather factors.

Once a stand is established it will be important to evaluate additional herbicide needs. Weeds need to be controlled by the three- to five-week period after planting to prevent competition. This is when corn is in the V2 to V3 growth stage (four to five leaves showing), or about 6 to 8 inches tall. Severe weed pressure during that period, especially from grasses, can impact corn yield potential significantly. If either excess or insufficient rainfall raises concerns about the performance of soil-applied herbicides, scout cornfields regularly to determine if weeds are breaking through and beginning to grow normally. Usually, the most reliable and effective herbicide program across a wide range of conditions is a preemerge herbicide followed by a postemerge herbicide. Δ

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