

Pioneer Talks Crops

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Corn planting is off to a late start once again in southeast Missouri and in mid-South areas overall. It is already mid-April and only 30 to 40 percent of the corn crop is planted in this area. Conditions this spring have been less than ideal due to cold, wet weather. Planting could be a hectic process as we once again may be attempting to plant several crops at one time. I have received several calls from growers asking how well the early-planted corn will handle cool soil temperatures and wet conditions.

Corn seedlings are most susceptible to damage from cold and flooding stress during the first few hours to days after planting. If the seed takes in cold water at this time, it can cause physical damage to the seed and seedling. This typically is referred to as "chilling injury." Corn emergence requires 110 to 130 growing degree units (GDUs) under ideal conditions. Accumulating these GDUs can take anywhere 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.

Seeds and seedlings are holding up in early-planted cornfields, and we are still see-

ing good emergence overall. I am optimistic about the early-planted corn from what I have seen so far. I attribute this to better seed treatments, field management, better seed quality and overall improved genetics. While stand establishment may be better than it was several years ago, we still can encounter emergence issues when faced with enduring negative environmental conditions.

It is always important to check corn stands after emergence to make replant decisions. Soil insects, seed rots, planter problems, soil compaction and other factors can reduce the number of plants that emerge. You can check stand counts easily by counting the number of plants in 1/1,000th of an acre by using this table, then multiplying the count by 1,000.

Typically, a 75 percent stand is acceptable, and with anything less, we recommend replanting. It is also important to take into account several cost factors in replanting such as seed, fuel, labor and machinery, etc.

It is important to keep the crop clean once a stand is established. Control weeds by the three-to-five week period after planting to prevent competition. This is when corn is in the V2 or 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 affect corn yield potential significantly. Δ



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