

Pioneer Talks Crops

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This is the first 2009 edition of Pioneer Talks Crops column featured monthly in the MidAmerica Farmer Grower. The overall goal of this column is to share timely agronomic information as well as provide valuable crop production tips

for growers.

Southeast Missouri is off to a late start once again for corn planting. Planting in much of the mid-South is late as well. It is already mid-April and only about 25 percent of corn acres are in the ground. Conditions this spring have been less than ideal due to cold, wet weather. Planting will be a hectic process as farmers may be attempting to plant multiple crops at one time. Growers are concerned about how corn that has been planted will handle the cool soil temperatures and wet conditions.

It is important for growers to check corn stands after emergence in order to make replant decisions. Insects, seed rots, planter problems, soil compaction and other factors can reduce the number of plants that emerge. Growers easily can check stand counts 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, but with anything less, replanting is recommended. It also is important to take into account several factors for replanting including the cost of seed, fuel, labor and machinery.

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 ei-

Row Spacing	30"	36"	38"	40"
1/1000th acre	17'5"	14'6"	13'9"	13'1"

Corn seedlings are most susceptible to damage from cold and flooding stress during the first few hours to days after planting. If the seed imbibes cold water at this time it can cause physical damage to the seed and seedling typically called "chilling injury." 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 at about 50 to 55 F. Temperatures in southeast Missouri were dipping into this lower range during mid-April. Corn emergence at 50 F can take 20 days or longer.

ther excess or insufficient rainfall raises concerns about the performance of soil-applied herbicides, growers should 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 preemergence herbicide followed by a postemergence herbicide. Δ



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