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Issue 8

Serving Dallas,
Jasper, Madison,
Marion, Polk,
Poweshiek and
Warren counties

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Across The Fence

Weather: with the onset of August, following the coolest July on record, temperature-wise that is, the GDD's have continued near normal. This is exactly what we need as we go into the grain fill period. Yes, it is state fair time, and yes we typically get high heat and humidity this time of year, and that will boost the GDD tally, but the reality is that too much heat too fast would be detrimental to the corn crop. At this time we don't want to "catch up" on heat units too quickly or, maybe at all. We need warm temperatures, no moisture stress, and lots of sunlight. This may mean wetter corn at harvest, but right now, the name of the game is minimizing stress during grain fill.

Aphid Update: We've seen a jump in aphid numbers this past week as we may have expected for mid-August. Many fields hit threshold levels and were sprayed. However, not all fields were at threshold levels. There are many winged aphids present. Are they coming or going? Not quite sure, but scouting is very important over the next 10 days to monitor populations. Except for late plantings, soybeans are in the R4 to nearly R6 stage of development (see [PM 1945](#) for descriptions of soybean stages). Thresholds for aphid treatment were developed for soybeans only through the R5.5 stage. After R5.5, there is very little data to show if a treatment will or won't be economical. Therefore, as the soybeans get closer to the R6 stage of development *and* if aphid populations level off or are declining, a spray may not be warranted.

Economic Threshold and Economic Injury Level Re-visited:

If the threshold for treating aphids is 250/plant on 80 percent of the plants, why wouldn't a grower treat when the population just *gets close* to that level, like a level of 200 or 150 per plant? While there are more factors than just the numbers per plant that enter into the equation, the *meaning* of the economic threshold number sometimes gets forgotten.

Economic Threshold (ET) is the level that indicates a treatment should be considered. At this level of infestation there is still a window of time that should allow for the treatment to be applied *before* the pest reaches a level of damage that is economical, which is the Economic injury level (EIL). At the EIL, the level of infestation is higher than the economic threshold. This is why we recommend not treating aphids before the ET of 250 aphids/plant, due to this number being an indicator that already factors in time to get the treatment applied before populations reach the EIL. Previous years' studies show that treating before populations have reached ET has not proven to be economically advantageous.

Ag Engineering and Agronomy Farm Field Day: Thursday, August 27, 8:30 to noon at the Bruner Farm, west of Ames - located 1 mile south of U. S. Highway 30 on "W" Avenue, and ½ mile east on 240th Street. Admission is free; lunch will be provided.

Researchers will share the latest information on:

- Crop season review
- Corn populations and planting date research
- Soybean aphid management
- Native prairie biomass production
- Potassium management with today's corn hybrids
- Value added soybean