



Blacklands IPM Update



GENERAL:

Wheat harvest operations are finally getting started, and hopefully we can get the crop harvested without the premature sprouting like last year. Corn in the area is reaching the latter stages of vegetative growth and entering the reproductive stages, with some fields already having both tassels and silks emerge. The corn crop is reaching the point where water demand is highest and high temperatures can cause some kernels to abort, and the rain in the forecast for this weekend and the early part of next week will be very beneficial to corn yields. The area cotton crop is all over the board, but the majority of the crop is finally squaring and susceptible to fleahopper damage. Replanted cotton that is just emerging or cotton that has not started squaring is still susceptible to thrips damage, but the recent rains and warm temperatures are leading rapid growth and will likely not have a need to be treated. Fleahoppers are starting to move into area cotton fields, but I have not come across a field that has reached the economic threshold yet. Aphids remain present in most fields, but beneficial insects are starting to move into fields to feed on these colonies.

COTTON:

The areas cotton crop ranges anywhere from just emerging from replanting to as far along as pin head squares. In fields that have not started to square we need to continue monitoring for thrips as they can be an economic pest of cotton from emergence up until the field starts setting squares. The warm temperatures will likely lead to these younger cotton fields to not need a thrips treatment, as thrips typically cause the most damage during times of slow cotton growth. We can also adjust the economic threshold for thrips with the warm weather pattern we are in currently. Under cool and/or waterlogged soil conditions cotton growth is slow and the economic threshold for thrips is 1 thrips per true leaf, but when we get favorable growing conditions like we are currently in we can bump the economic threshold up to two thrips per true leaf.

Cotton fleahopper (**Figure 1**) is probably the number one pest for cotton production in the Texas Blacklands and they can quickly reduce fruit set and yield potential. Scouting this week, I have started picking up on fleahoppers moving into some area cotton fields. Currently, I have not found a field that is at or above the economic threshold for fleahoppers, but their numbers can rapidly increase as we start shredding bar ditches and spraying weeds within cotton fields. The economic threshold for cotton fleahopper in cotton is currently at 10-15 fleahoppers per 100 terminals. There are several effective management options for cotton fleahopper including acephate with or without imidacloprid tank mixed, centric, Bidrin, imidacloprid alone, and even Transform. With the warm and dry weather patten we are currently in we need to keep secondary pest in mind when we are making insecticide selections to manage our cotton fleahopper. Pesticide like acephate and Bidrin are hard on beneficial insects and can lead to outbreaks of aphids and spider mites. If your field does have aphids present and needs to be treated for cotton fleahopper some recommended pesticide options include Acephate plus imidacloprid, Centric, Intruder, and Transform. All these insecticide have some activity on cotton aphids, but with acephate, imidacloprid, and centric only suppression of the aphid population should be expected. If spider mites are also present in the field, with about 40% of the plants infested, and we do not get the forecasted rain for the weekend and early part of next week throwing in some abamectin as you go across the field can keep their numbers for exploding. Below are results from a fleahopper efficacy trial conducted in the Brazos Bottom by Dr. David Kerns last year, that may help you in deciding what insecticides to use for fleahopper management (**Figures 2 & 3**). Additionally, over the last two years I have looked to see if there was a reduction in insecticide efficacy for cotton fleahoppers when using a coarse droplet spray tip like required for the application of auxin based herbicides over the top of cotton. The results from these trials indicate that insecticide efficacy is not reduced when using adequate gallons per acre required for those herbicides.



Figure 1. Adult Cotton Fleahopper, photo credit: Salvador Vitanza

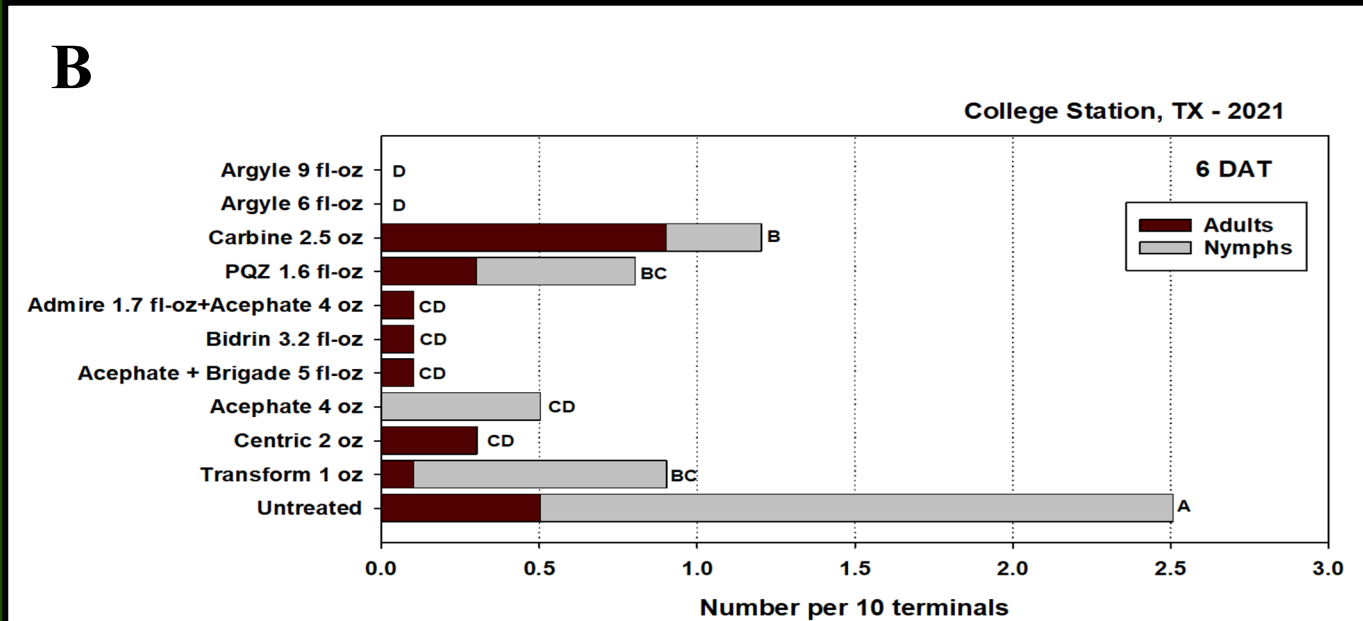
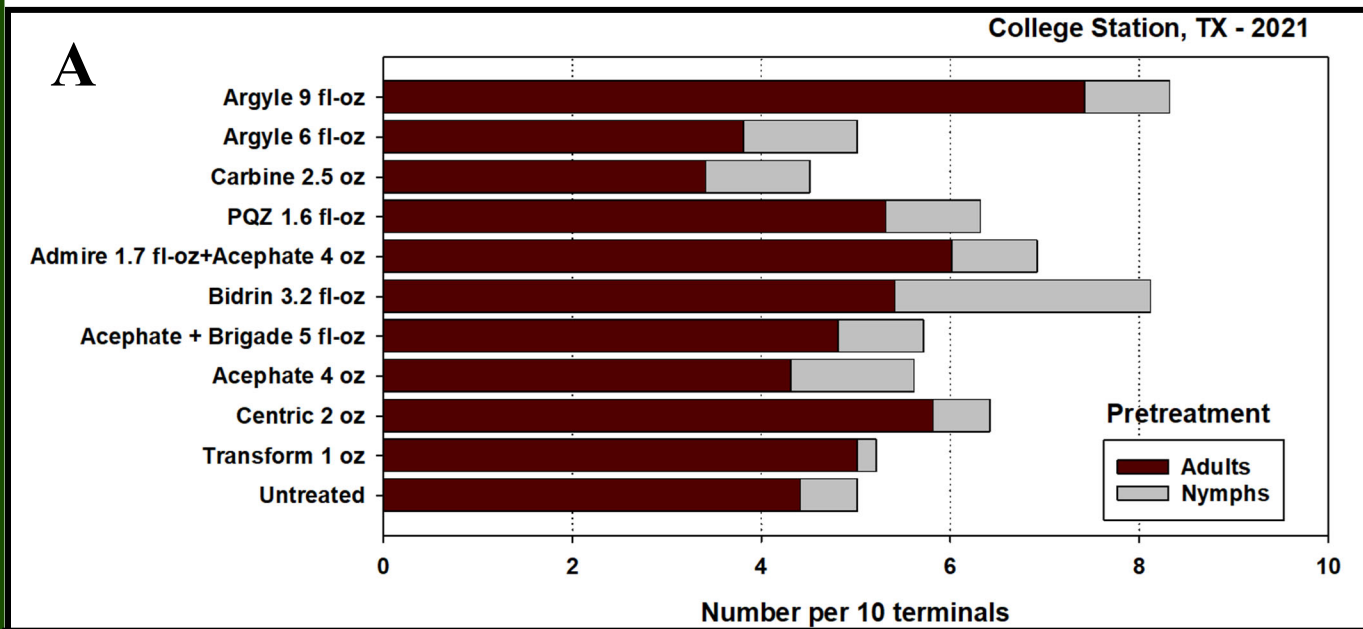


Figure 2. Pretreatment (A) and 6 days after treatment (B) cotton fleahopper counts in an efficacy trial conducted in College Station, TX by Dr. David Kerns.

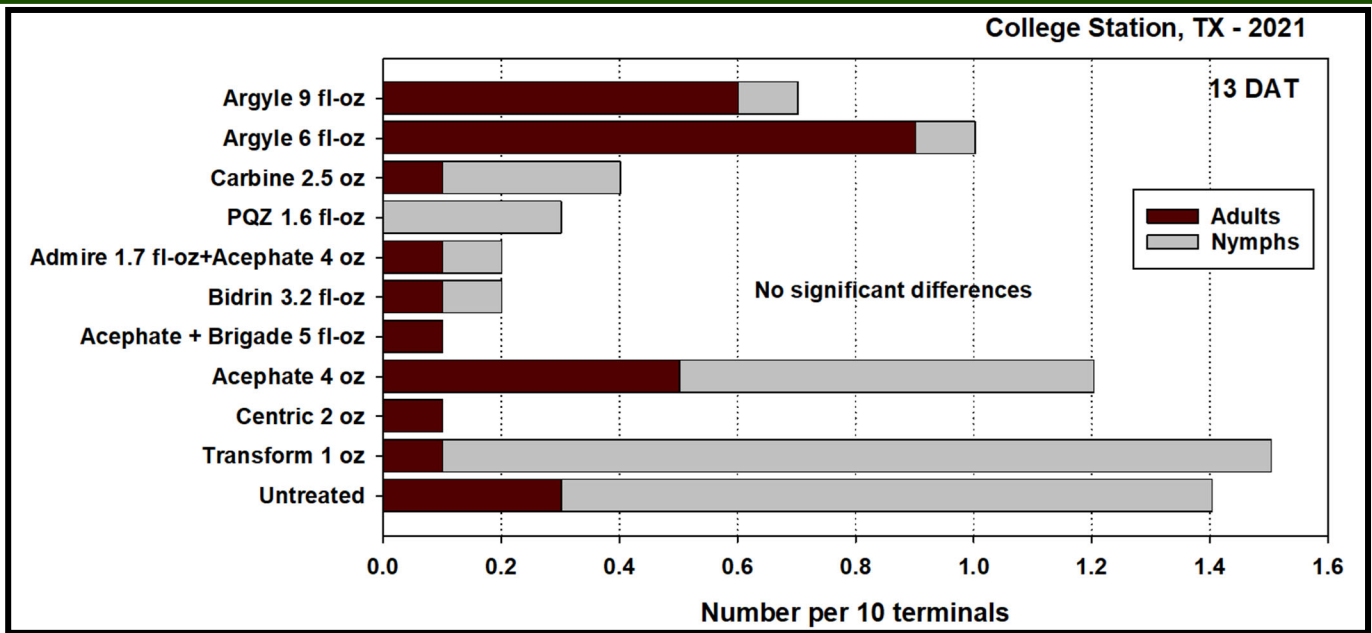


Figure 3. Cotton fleahopper counts at 13 days after treatment in the cotton fleahopper efficacy trial conducted by Dr. David Kerns in College Station, TX

Spider mites are a pest that have been seen in a few area fields already this year in a handful of fields. They are an issue during periods of hot and dry weather like we are currently experiencing. There are a few management situations that can cause spider mite outbreaks, and mainly stem from using insecticides that kill both the target pest and any beneficial insects that can help keep the spider mite populations from increasing. Spider mites feed on the underside of the leaf and can cause the upper leaf surface to develop a reddish appearance where the colony is feeding. In cotton we get the two spotted spider mite that is small and typically tannish in color with two darker spots on either side of the body, but they can at times be reddish in color (**Figure 4**). If we do get an outbreak of spider mites treatment is justified when 40% of the plants are showing signs of feeding with actively growing spider mite populations. There are numerous miticides recommended for managing spider mites including abamectin products like AgriMek and ABBA Ultra, Portal, Oberon and Zeal.



Figure 4. Two-spotted spider mite. Photo credit: Pat Porter, Texas A&M AgriLife Extension Service

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