



Blacklands IPM Update



GENERAL:

Despite the dry weather our area has experienced over the last three weeks the area cotton crop is growing nicely but could use some rain as some of our earliest cotton fields are starting to bloom. The pest situation in cotton is picking up again, with flea hopper number reaching the economic threshold in field that have yet to be treated as well as fields that were treated two weeks ago. Other pest being found in cotton include spider mites, aphids, and whiteflies. The area corn crop desperately needs rain to help finish out the early planted corn and help avoid pollination issues in our late planted crop. Insect and disease activity in the area corn crop is quiet, but this warm dry weather has been conducive for spider mite development in the corn crop.

COTTON:

The area cotton crop ranges from pinhead square to as late as first bloom. The area cotton crops have weathered the last two weeks fairly well as all of the fields in the scouting program have not shed a bunch of squares due to drought or heat stress. Insect activity has increased over the last 10 days, with fleahoppers, aphids, and spider mites, and white flies being observed in area fields. The beneficial insect population thankfully has helped keep the aphids and white flies from becoming an issue.

Cotton fleahoppers are continuing to be an issue in area cotton fields, but as we start seeing more and more fields starting to flower the economic concern of fleahoppers will stop. Cotton fleahopper number this week ranged from 0 fleahoppers per 100 plants to a high of 18 fleahoppers per plant. Fields that were sprayed two to three weeks ago that are not blooming have seen an increase in fleahopper numbers that are including both adults and nymphs. The economic threshold for fleahoppers in the Blacklands is 10 to 15 fleahoppers per 100 terminals, and when treating a second time I usually do not pull the trigger until their number reaches the upper end of the threshold. Fields that have not been sprayed for fleahoppers and still have over a week from seeing blooms should be scouted for fleahoppers. If a field is going to be treated for fleahoppers we need to be cautious with our insecticide selection as other pests like aphids, spider mites, and whiteflies are present in area fields, and can be flared if we use an insecticide that will wipe out our beneficial insects.

Over the past week and a half, I have started to pick up small pockets of spider mites in cotton fields across the area. Most of the spider mite issue I am finding are coming out of corn, tree lines, and homesites that border cotton fields. The recent warm weather has been perfect for spider mite development and as our early planted corn starts to dry down, we will see them become an issue in area cotton and sorghum fields. Spider mite population typically starts along field margins where other host plants are infested and work into the field. Spider mite populations are usually found in clumps of high populations instead of being evenly dispersed across a field, and for that reason they can often times be spot treated instead of broadcasting across the whole field. Spider mites are small and hard to see with the naked eye, and infestation are not usually found until the upper leaf surface turns the characteristic red color (**Figure 1**). Spider mite damage causes the upper side of the leaf to develop a red appearance where the mites are feeding on the leaf the area where the spider mites feed will have a silver to gray appearance and depending on the number of mites present webbing can also be found around the colonies (**Figure 2**). The economic threshold for spider mites is not fully developed but a general guideline to follow on when to treat is to apply a miticide when 40 percent or more of the plants show noticeable leaf damage and the spider mite population is actively growing. The rain over night was beneficial to cotton growth, and could help slow the growth of spider mites, but we should keep an eye on them because their populations can increase rapidly.



Figure 1. Reddish color of upper leaf caused by spider mites feeding on the underside of the leaf.



Figure 2. Spider mite colony on the underside of a cotton leaf with webbing.

CORN:

The condition of the corn crop in the area is variable with the older corn starting to dry down and the late planted corn was starting to show symptoms of drought stress. The rain we received will be helpful for both our early and late planted corn fields, but it may be too late to have much benefit for our late planted corn crop that is close to pollination to just past. I have looked at some corn fields across the area, and I have seen some pollination issues in some of our late planted corn that can be due to dry hot weather at pollination or insect feeding on the silks. I have also seen some kernel abortion on ear tips that is caused by hot dry weather during grain fill.

Disease issues remained quite over the last few weeks, but this rain could cause Northern corn leaf blight to become active again. and will only be an issue to area corn that has not reached the dent stage. I have started to pick up on some aspergillus and fusarium ear tors in some area corn field, and this could be an indication of us seeing mycotoxin issues this year. The weather pattern of wet weather early followed hot and dry weather during pollination and grain fill favors the development of aspergillus and fusarium ear rot and the potential production of aflatoxin and fumonisin. He only way to know is aflatoxin or fumonisin is present is to submit the grain to a lab for mycotoxin testing. There are ways we can manage the level of contamination and possible loss in grain value due to mycotoxin contamination. Describing these ways s will take a lot, and is best if in another newsletter. I will send out a newsletter talking about ways we can minimize mycotoxin issues this close to and during harvest.

Insect activity is quite as corn earworms and fall army worms are pupating and we have started catching a few moths per night in traps at Irene and Chatt. Moth flights will continue to increase and peak probably somewhere near the 4th of July, and these moths will then begin to lay eggs in area corn still has some green silks, cotton, and sorghum. Spider mite numbers continued to increase over the last two weeks, and as our corn starts drying down will move to neighboring cotton and sorghum fields. Corn fields that have not reached the dent stage are still at risk of seeing economic loss from not managing them. The further away a field is from the dent stage the greater chance of seeing severe yield loss caused by spider mites. Hopefully, the recent rains we received Saturday morning (6/20) and the predicted rainfall for Tuesday through Thursday will help slow down our spider mite infestations, but we should still keep an eye on them as even though it rained warm weather can still allow them to develop quickly.

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