TEXAS A&M AGRILIFE EXTENSION

Plains Pest Management

JULY 25, 2014

General Status

It has been an ideal week for plant development. It was far below ideal for anyone working and baking in the fields with those plants. We have experienced temperatures in the lower to mid-90's for highs, high humidity, light winds, and plenty of sunshine with ample heat-units. Only recently have any dryland crops started to showing any 'serious' signs of drought stress and rain is in the forecast again for next week. I have had quite a few gloom and doom conversations of late this season. These have been brought on by the rough start, high weed pressure and problems getting them knocked out, late crops, expected pest pressure, high input costs, and some recent market moves. From what I am seeing in the field, our crops do not fully share our gloomy mood.

Cotton

Just under 90% of our program's surviving irrigated cotton fields are sporting blooms with most able to be measured in nodes above white flower (NAWF). Even the very latest of our replanted cotton should be sporting blooms by next week. This is a touch late but still well inside of an average cotton bloom-timing window. If managed for maturity correctly, there should still be some very nice lint yields across both counties, even if an early freeze occurs.

This week our program cotton fields ranged in stage from 2/3 grown square to 6 NAWF. The cotton fields more consistently ranged from 7 NAWF to 10 NAWF. The majority of these fields entered first bloom at 9 NAWF. Fruit retention remained high, usually 93% or better unless the fields had experienced economic plant bug populations in the past few weeks.

We again had just a couple of fields reach ET for fleahoppers and required treatment. The fruit retention in these had dropped to 81% and 87%. Good amounts of predation from big-eyed bugs,minute pirate bugs, lacewing larva, ladybugs, and Nabids likely prevented several more fields from reaching ET with fleahoppers. There were also many fields that had a very high population of

fleahoppers that did not require treatment. In all of these non-treated cases, blooms were consistently easy to find, high in occurrence, and readily available across the field. Once blooms can be consistently found in cotton fields, fleahoppers are generally no longer an economic threat as the fleahoppers then tend to feed more readily upon easy to reach pollen from the blooms in search of their preferred protein source versus the harder to extract protein from the small squares.

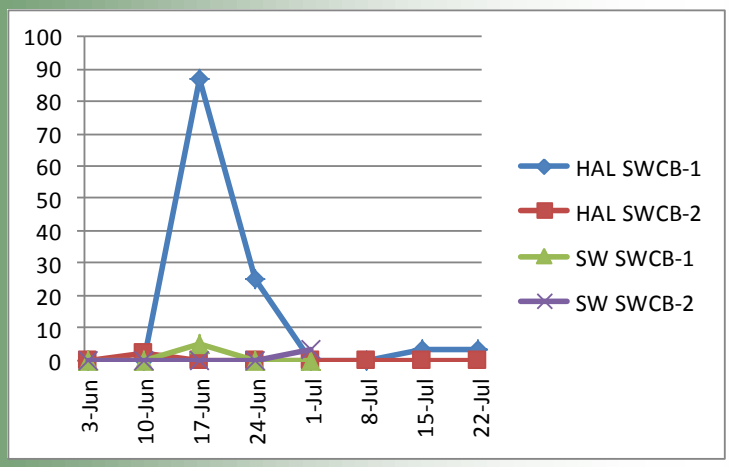
We did find a slight increase in Lygus populations in our program cotton. In none of our fields did this increase reach ET. I am noting a large population of Lygus in our area alfalfa fields, CRP, and roadsides. We should be on the lookout for a Lygus migration to nearby cotton once these fields, roadsides and ditches are swathed, sprayed, treated, or shredded.

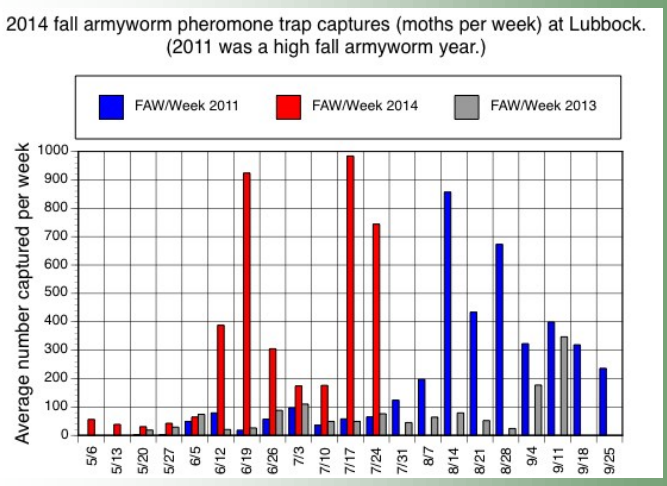
Corn

Our program corn ranged from V6 to late dough this week with most of our post tassel corn ranging from early to late dough. Both early and late planted corn looks very good agronomically at this time. Spider mites are difficult to find in in whorl stage corn while almost all of our tasseled corn has already reached ET with several fields receiving treatment at the time of this writing. So far, 100% of this spider mite infestation has been from the banks grass mite (BGM). We did have another increase in six-spotted thrips, predatory mites, and mite destroyers, but it was not enough of an increase to stem the BGM march and infestation up the plants. Control of these BGM from our miticides treated a few weeks ago looks to be ample to good at the higher application rates.

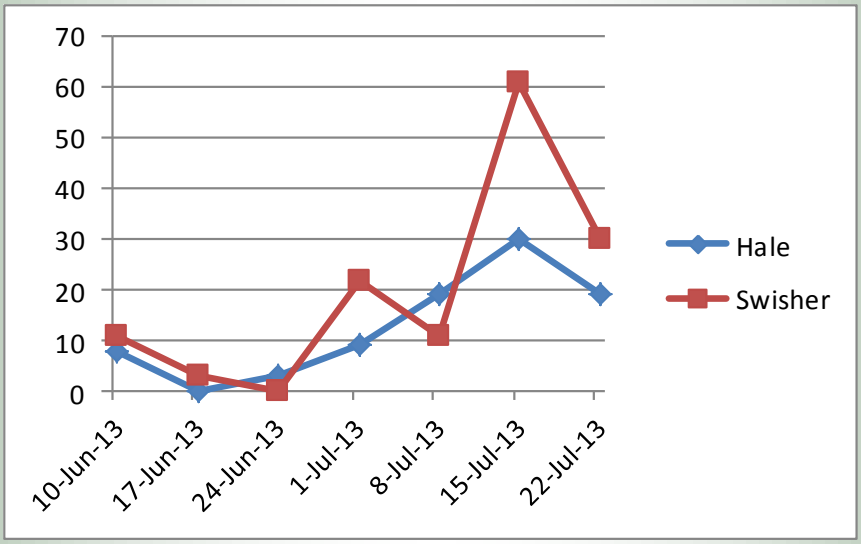
We have not seen a large push from the corn Lepidopteron pests complex this week. Despite some very high fall armyworm moth (FAW) trap numbers earlier in the summer, we are not seeing very many, if any, on the corn ears, but rather in whorl stage sorghum, apparently a preferred host. We are finding 1-2 corn ear worm larva (bollworm, headworm) per ear, but this is sub threshold and a little below normal for the area and amount of tasseled corn acres in the area. In our program corn, Bt or not, we are yet to find any southwestern corn borer or European corn borer eggs or larva.

The following three charts are from Gary Cross, CEA-Hale, John Villalba, CEA-Swisher, Dr. Pat Porter, District Entomologist – Lubbock, and mine. Gary's and John's depict all of their southwestern corn borer moth trap catches for the season done in support of Dr. Ed Bynum's region wide moth monitoring project. Dr. Porter's depicts the latest FAW trap catches for Lubbock County compared to recent seasons. The last is of the Hale & Swisher bollworm trap numbers for 2014.





Hale & Swisher southwestern corn borer moth trap data



2014 Hale & Swisher bollworm moth trap data

Sorghum

Our program sorghum ranged in stage from V5 to early soft dough. The majority of our later replanted sorghum fell into the V7 to V9 category while our earlier planted sorghum is commonly from boot to 15% bloom. FAW were relatively high in our late whorl stage sorghum with some fields reaching 10% plants infested with anywhere from 1st to 4th instar larva. While this is relatively high compared to most seasons, very noticeable, and worth keeping any eye on, it is well below ET.

Surprisingly, we had very few FAW, or headworms of any kind, in our booted or booting sorghum. I recommend keeping a vigilant eye out for headworms of all types from bloom through hard dough based upon the season's moth trap data.

Sorghum Midge

Our largest concern in blooming sorghum based upon this week's scouting should be sorghum midge. We did find several fields with some level of midge present. The highest level found was 0.12 sorghum midge per head. This is earlier than we would expect to find midge in our area.

Midges are tiny Dipterans, or flies, that feed exclusively on sorghum type plants. The adult midge only lives less than one day, just long enough to lay eggs into blooming sorghum. The tiny resulting maggot feasts on a single developing grain from within consuming it fully only to emerge as an adult a short time later (usually about 2 weeks) as an adult to start the process over. Midge cannot overwinter in our area and must migrate from the south every growing season, usually hopping generationally from blooming sorghum field to blooming sorghum field. Johnson grass can also harbor the midge life cycle. Sorghum field blooming this early in the growing season are normally immune to midge damage, as the midge typically do not arrive in force until an average date of August 4th. Every season and situation can be vastly different, and we do recommend scouting for midge in any blooming sorghum field.

Resulting Sorghum Midge Damage, Hale County 2013

When scouting for midge, I prefer to make use of beat buckets or jugs by placing the bucket over the blooming head, tiling downward and shaking vigorously. Midge should be shaken loose and counted. A minimum of thirty plants per field should be checked, but total number needed to be checked will vary depending upon field size. Another good method for use on windy days involves enveloping the blooming head in clear plastic, disturbing the head and counting midge trying to escape. While in bloom, sorghum should be checked daily for midge starting about 11AM, temperature depending.

Beat bucket in use in sorghum

Another concern we are finding in our booted sorghum are the spider mites. We can find some level of spider mites in most of our program sorghum fields, regardless of stage. Much like in post-tassel corn, the mites tend to increase much more rapidly in post boot sorghum. This is the case for several of our program fields with many flirting with ET. Generally, the drier fields are experiencing heavier mite pressure. I estimate the mite complex in our sorghum to be 95% BGM and 5% two-spot. Our control ooptions for mites in sorghum are much more limited than in corn. Currently we only have two labeled products, Comite II and Onager.

Spider mite close up

Vegetable Notables

We are still finding *Mozena obtusa*, the mesquite feeding species of leaf-footed bug that caused concern in peas last month, in the area. It has again been identified as a problem in several black-eye pea fields and gardens again this week. Currently we have no well understood control tactics for this stink bug when it becomes a pest. Two types of pyrethroids and acephate have proven to at least drive the bugs away from peas but no mortality has been confirmed.

Our local summer broccoli and cauliflower produce has been infested repeatedly with economic populations of the Harlequin bug. Summer infestations of these true bugs in broccoli can be ridiculously high, extremely damaging, and is quite normal for this area. There are several products labeled for Harlequin control but due to the high re-infestation rate, mobility, and reproductive capability of this pest, I recommend a solid mode of activity rotation. Early fall transplanting of these crops tend to reduce economic issues with the colorful and summer ready Harlequin while still producing a high quality broccoli and cauliflower product.

Harlequin Bug Adult

Harlequin nymphs and eggs

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We're on the air…

"Tuesday's with Blayne" from 6:00—7:00 AM & from 12:30—1:00 PM on the 1090 Agri-Plex Report on 1090 AM KVOP-Plainview.

"IPM Wednesdays" from 1:00-2:30 PM on The Fox Talk 950 Ag Show. Fox Talk 950 AM - Lubbock.

Our area tomatoes have had a very rough go this summer. All of the issues that ravaged our area cotton has hit the tomatoes even harder. Of the surviving fields, a whitefly spread virus is moving through fields rapidly. I have noted a very few of the tiny whiteflies turning up on our area cotton. This level of whiteflies normally would be nothing to be concerned with until they are confirmed to be transmitting diseases. Because of the seriousness of the disease and the rapidity of its spread, I am suggesting a zero tolerance for whiteflies in tomatoes plan for the rest of the season. Several of the Neonicotinoid products have a tomato label, work well on whiteflies, have a beneficial friendly attribute, and should have a 7-10 day residual.

Whitefly Adults on a Leaf

Please call or come by with any questions,

Blayne Reed