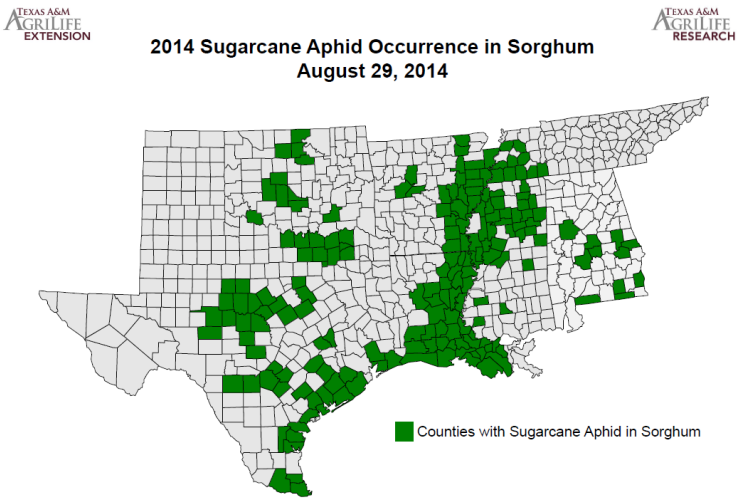
Plains Pest Management

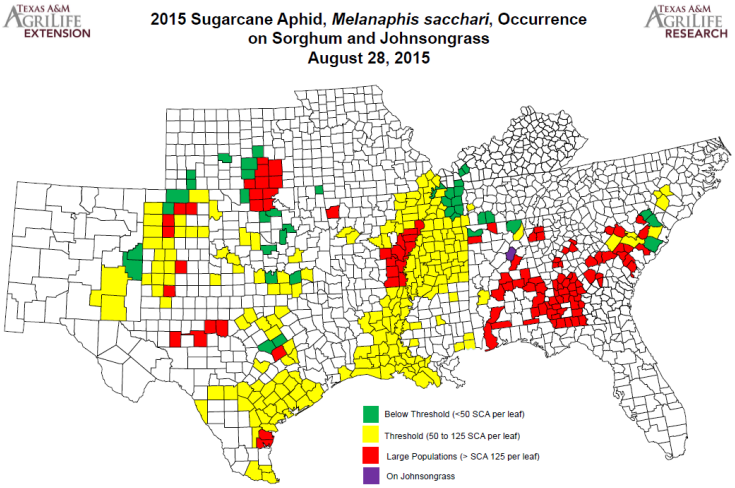
SEPTEMBER 4, 2015

General Status

It has been a bumpy and expensive road with economic pests on corn and sorghum this past month. While there remain serious pitfalls, particularly to sorghum from the sugarcane aphid (SCA), we do have allies in the form of predators rallying around several potential problems with hungry mouths giving some major aid in some of our most troubled fields. In cotton we are finding very few areas for pest concern, other that we are a touch late on seeing open bolls and just a few cotton aphids about. Harvest on some older corn and sorghum fields has begun, wheat planting has started in a few spots but should be right around the corner, and there are discussions about rain in the forecast.

With so much happening on a few select pests, I will cover each of these pests in detail this week rather than under the appropriate crop.





Cotton

All of our program cotton fields have now reached absolute cutout of at least 3.5 NAWF and in most fields it is difficult to find but just a few blooms any longer. I have yet to find any open bolls in our program fields but this welcome discovery is expected day by day and field by field. I do not expect any major pest issues in cotton this next week based upon what we have found this week. Our predator populations are very good to excellent in most fields. These predators and parasitoids have been building on the light cotton aphid population and in neighboring sorghum fields working on the sugarcane aphid. It should also be very difficult for bollworms or Lygus to impact or establish on large, mature bolls like most fields are sporting near the top of the plant. We will only be peaking in on all but the latest of cotton fields to make certain there are no cotton aphid problems and keeping an eye on maturity needs until we feel it would be time to take serious action for maturity management or harvest aids.

Corn

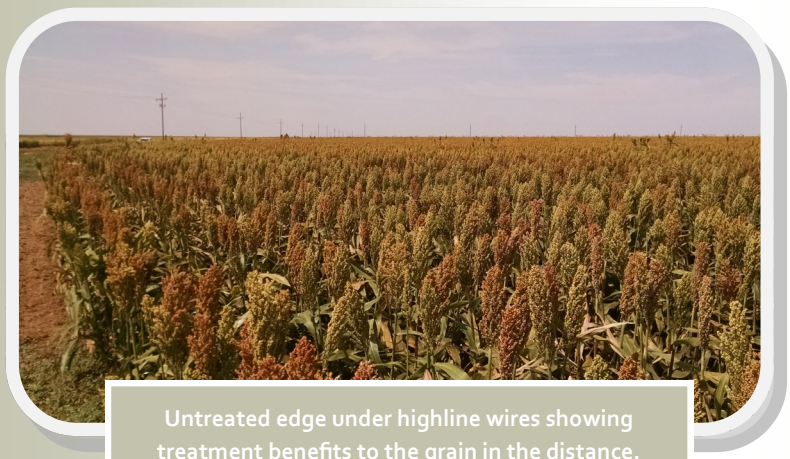
A few of our oldest corn has already been harvested while the rest is only waiting to dry down. The bulk of our mid-maturity corn group is in late dough to dent stage and progressing well. Our youngest group of corn fields is in blister to early dough stage and peak water use. We noted limited disease increase in these younger fields this week that was limited to just a select few fields. Drier conditions and few heavy morning dews despite moving into September are likely to thank for the problem omission so far.

Jim, our faithful PPM field scout, pulled this ear from Northern Swisher field late last week. 2015

Sorghum

The majority of our program sorghum fields are in a milky dough stage to coloring dough. I can make note of a few area fields with combines starting to make their first turns all the way back to some area sorghum still in whorl stages. It is clear that all area fields have been hit by the sugarcane aphid to some extent.

Sugarcane Aphid (SCA)



Untreated edge under highline wires showing treatment benefits to the grain in the distance. Western Hale, 2015

We are seeing some very interesting things regarding the SCA this week. As we watched field after field rebuild with damaging populations following treatment, we braced for another round of SCA treatments in those same fields this week. Even in fields where we felt we had superior control with our first treatment we were still seeing populations building back up last week. In many of these fields, we were delighted to find the SCA population far below what we were expecting. In others, it was exactly what we expected and additional treatments were triggered.

As myself, Dr. Pat Porter, District 2 Entomologist, and Dr. Ed Bynum, District 1 Entomologist, put our heads together to see what was causing this distinction there were two common themes. First, the fields that did not require retreatment as expected this week did have what we felt was superior control from the first treatment. Secondly, the predator population (the highest I have seen in my career) continues to grow rapidly.

What we suspect is happening is this: **In sorghum fields where we have gotten really good control from our treatments, whether it be first or second, the predators have finally reached a high enough level to have a major impact.** In essence, we may have lowered the SCA populations in these good control fields to a point that the predators can clean them up. However, be fare warned because: **In fields where our level of control was marginal, we still have SCA increasing despite the same level of predators.** These lesser control level fields still required additional treatment for SCA.

This does provide me with some cautious optimism to a hope that we will not be forced into treating repeatedly up until the point where the combine leaves the field. There is a chance, now that the predators appear to be at a high enough level to be a of major assistance behind a good treatment, that with one good hit on these SCA could carry us to black line stage. It also underscores the need to make each SCA treatment count by utilizing proven rates, plenty of water, and silicone based surfactants.

Untreated edge of sorghum type hay crop near Plainview 2015

Spidermites (BGM)

While the shock of SCA has gotten most of the attention as the invasive pest, the battle in many corn fields with mites has been just as serious. In our program, we have treated 90% of our mid-maturity stage corn this season but did not add any new fields to this total this week. Predators, environmental conditions, and good control have caused a BGM in corn crash. We need to remain vigilant for BGM in our youngest staged corn fields, just now entering dough stage and what should be the best opportunity for the mites to increase in these fields and cause more problems. However, this is September. The nights are cooler, days shorter, and dew/leaf moisture more prevalent. These are all factors that work against BGM populations and the predator population now is much higher than the older fields in our scouting program had to deal with.

Temperatures

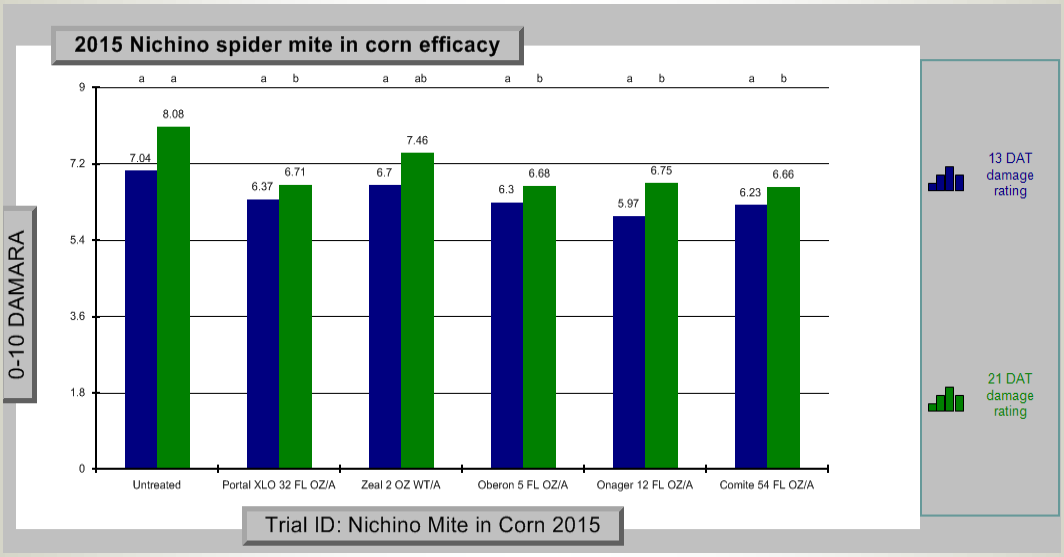
- BGM develop rapidly at 97°F – 99°F and low humidity
- TSSM develop at lower optimum temperature (86 to 90°F and have a higher tolerance to high humidity

Development time for Banks grass mites on Corn*		
	Time in Days	
Stage	77° F	97°F
Egg	4.3	2.1
Larva	1.7	0.8
Protonymph	1.3	0.8
Deutonymph	1.9	1.4
Time to Adult	9.9	5.5

* Perring (1983) Ph.D. Dissertation. University of Nebraska

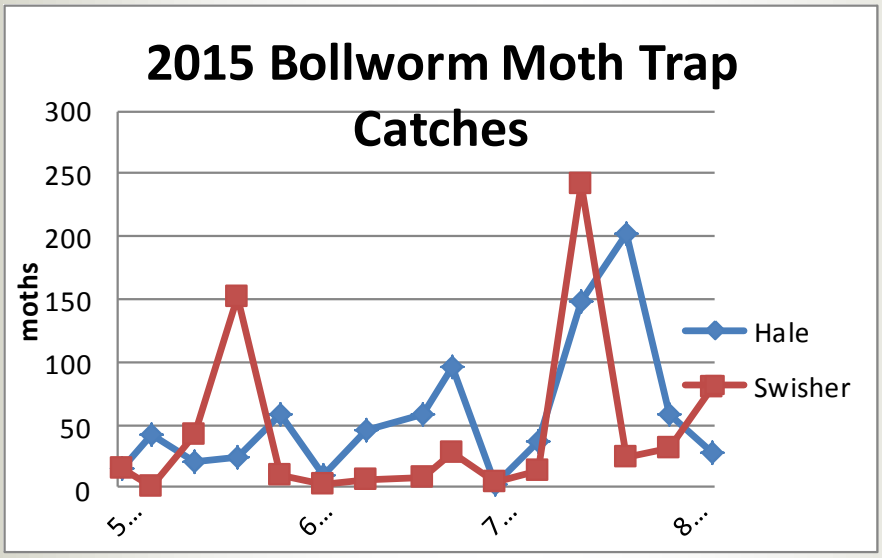
We are still noting mites in sorghum also. We have had no sorghum field in our program require treatment for mites, but they are present alongside SCA in all fields. Thus far, the predators have kept the impact of our mites in check but it is also apparent that spidermites and SCA do not coexist in the same location of a leaf very well.

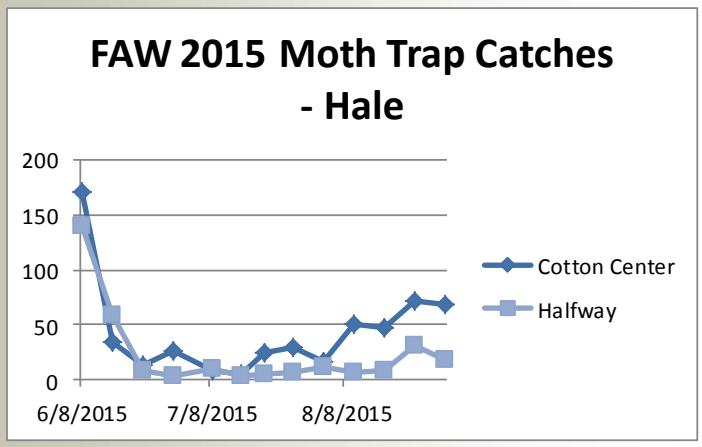
I am sharing the damage rating from our 2015 Spidermite in Corn Efficacy Trial we have just concluded. The mite pressure in the plots involved in this study were very high and likely would have required two treatments in a true production situation. For the sake of pure product evaluation under extreme situations, only one treatment of each product involved in this trial was made at the rate shown.

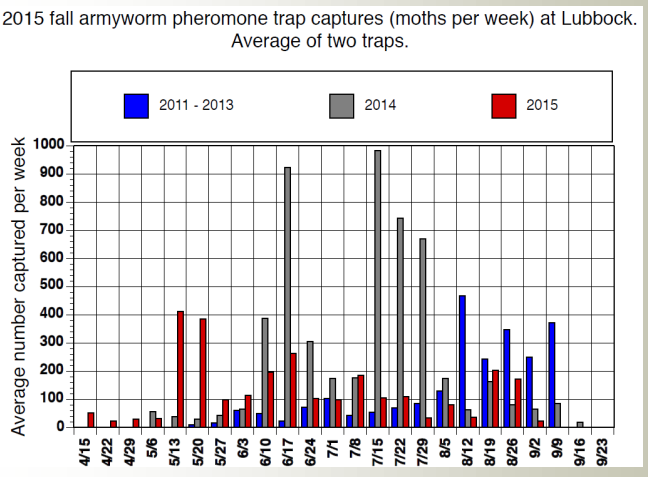


Bollworm / Headworm / Earworm (CEW) & Fall Armyworm (FAW)

Despite a peak in CEW moth flights just a few weeks ago, we are not noting a large increase in bollworm activity in cotton or sorghum. Most of these CEW eggs seem to have been laid in the later corn fields where they will be of no economic consequence. Of those that were not, high predation in sorghum and cotton has limited the ability of this pest to establish. Our highest headworm count sorghum field this week was only 0.2 headworms per head and our highest bollworm count in cotton was 789 small worms per acre in a non-bollgard field. I do have reports of one lusher area non-bollgard cotton field that required treatment for bollworms, but pest establishment in cotton is doubtful from this point out unless the field is very late. In sorghum, most fields remain at high risk for headworms, whether they are FAW or CEW and our moth traps prove there remains potential for problems still. Hopefully, the high amount of predation in sorghum heads will continue to be to our crop's benefit.







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For quicker pest alerts-

Plains Pest Bugoshere:

http://
halecountyipm.blogspot.com/

Pest Patrol Hotline, registration at:

www.syngentapestpatrol.com

We're on the air…

"Tuesday's with Blayne" from 6:30—7:00 AM on the HPRN 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.

Wheat Considerations

It has been a very heavy aphid summer, and not just for the SCA. There are multiple species of aphids flowing about the area. These species include several wheat pests such as greenbugs, bird cherry oat aphids and others that are known to be wheat pests and transmit wheat diseases during the fall. Add to that the next new, invasive species of aphid, the hedgehog aphid (so named by our colleagues in Colorado last year) and we could be facing some serious and expensive problems in wheat this season. We also had a very high occurrence of long forgotten wheat diseases this last season that we expect to remain with us for as long as we have decent moisture. As a standard practice I am recommending two preventative IPM actions for our wheat that could save dollars on this crop.

1. Delay planting for as long as possible. This breaks the pest host plant green bridge and / or provides the smallest possible window for these disease carrying and damaging pests to infest and infect wheat.
2. Make use of seed treatments and / or seed box treatments of fungicides and insecticides. A few dollars spent on seed treatments today, might just save you a few dozen dollars on a limited but needed crop later.

For full information about the next new and invasive aphid in wheat, the hedgehog aphid, Dr. Ed Bynum wrote an outstanding piece that can be found at http://txppipm.blogspot.com/

Blayne Reed