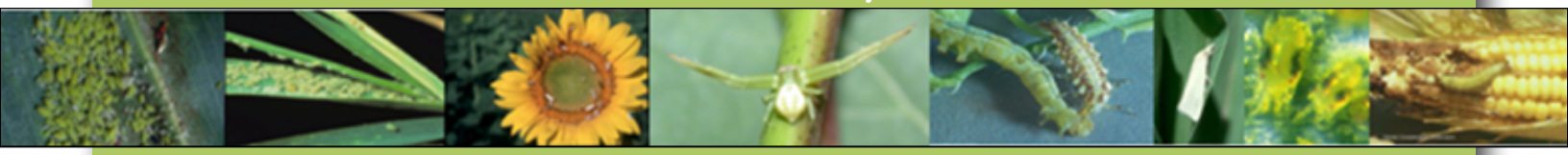
# Panhandle Pest Update



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## Pest Update

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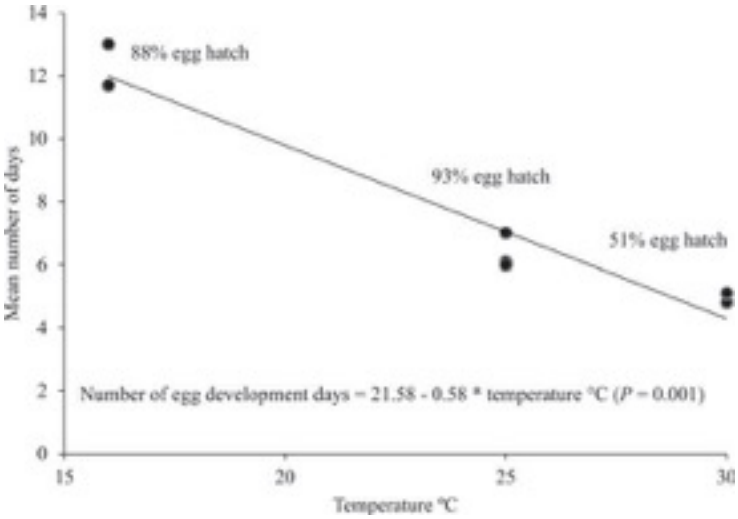
### Western Bean Cutworm (WBC)

Last week I wrote about WBC moth activity beginning to increase and the possible concerns about reduced activity of Cry1F Bt toxin in Bt corn. After writing the article I began to wonder how our extreme hot temperatures would affect WBC egg and larval survival. I contacted an entomologist colleague from the University of Nebraska to get his input about these temperatures and WBC. His comments were "Hot temps will have greater impact on leaf temp if the plants are under any stress and this could dry egg masses and increase their falling off the plants. We have seen this happen some in fields that have been stressed. Perhaps the greatest impact from the heat will be to shorten adult life spans and decrease egg laying. In very hot weather the moth flight period is constricted and females tend to lay fewer eggs (fewer egg clutches). The larvae will seek protection, and if plant is not too stressed they will find it (e.g. developing tassels in whorl), should do well. They are very good at finding hospitable microclimates on the corn plant." Also, he is an author on a journal paper that looked at WBC survival at different field location. I have copied a graph (See Graph) from the paper that illustrates the number of days for eggs to hatch decreases from 12 days to 6 days as temperatures increase from 60° F (16° C) to 86° F (30° C). But, also at the higher temperature the percentage of eggs that hatch declined to 51%. So, when temperatures reach 105° F (40° C) or more the percentage of eggs hatching should be even less. Unfortuantely, having fewer egg clutches will mean take more time to find them when scouting and harder to make decisions for when to treat.




J. Econ. Entomol. 106 (3): 1274-1285 (2013)

https://twitter.com/TXPIPM

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## Sugarcane Aphids (SCA) on the High Plains

Late Wednesday evening, Blayne Reed (IPM Extension Agent - Floyd, Hale, Swisher Counties) reported sugarcane aphids were found on the eastern side of Floyd county by independent crop consultants (http://halecountyipm.blogspot.com/2016/07/sugarcane-aphid-in-floyd-county-sca-ipm.html). And, Katelyn Kowles (IPM Extension Agent - Crosby, Lubbock Counties) reported finding the aphids in the eastern part of Crosby County. The SCA infestations were very low in both counties. Infestations were from <1% of plants infested in Floyd to <5% of plants infested in Crosby. Colony sizes were also very small. Still they are here now. Dr. Pat Porter has written the following summary or highlights from what we learned last year about SCA management.

**Early planting is going to pay off**

The earlier the aphid arrives during crop development, the more damage it can do. Infestations prior to boot can cause sterile panicles and decrease yields to essentially zero. Infestations at or after flowering, while still very serious, are somewhat less potentially damaging. This is why our treatment thresholds vary by crop stage.

**Treatment threshold:**
**Pre-boot**: 20% of plants with aphids.
**Boot**: 20% of plants infested with 50 aphids per leaf.
**Flowering to Milk**: 30% of plants infested with 50 aphids per leaf.
**Soft dough through dough**: 30% of plants infested, localized areas with heavy honeydew, and established aphid colonies.
**Black layer**: Heavy honeydew and established aphid colonies with treatment only for preventing harvest problems.

Our earlier planted sorghum has either finished flowering or is now flowering and has moved to the place it can withstand more aphids. In part this might matter because we have a relatively high number of beneficial insects in the system, and they have a better chance of keeping populations below treatment thresholds when those thresholds are higher. And even if one insecticide application is necessary, the need for a second application is far less likely in a much more mature crop.

**Weekly scouting is a must**

Under hot, dry conditions, the reproductive capacity of this aphid (which is born pregnant) is something approaching Shock And Awe, and everyone who went through the 2015 season will agree. Missing a weekly scouting might mean missing populations low enough to be brought under control with insecticides. In 2015 we had many fields that were sprayed too late and adequate control was not achieved without a second application. Once the aphid has been found in a field, then twice-weekly scouting is important. Last year I would have linked to our guide to recognizing the sugarcane aphid, but this year I think we all know what the enemy looks like.

**"Tolerant" hybrids are susceptible hybrids**

There are a few hybrids with resistance to sugarcane aphids, although the seed industry chooses to call these "tolerant" hybrids because they rightly don't want to give the impression they are bulletproof. Our best resistant hybrids are what could be called moderately resistant, and this won't stop the aphids from reaching treatment thresholds. It may slow them down, and it may let the beneficial insects have more time to exert control, but all other things being equal it is merely a delaying action. Fields of "tolerant" hybrids should be scouted and sprayed based on the treatment threshold just like fields of completely susceptible hybrids.

**Insecticide choice matters - a lot**

Last year saw everything in the book, and some things not in the book, being thrown at sugarcane aphids. Many of these insecticide products were our

old aphid standards, and what we found was that they were not very good at killing aphids, but they were very good at killing beneficial insects (the big guns in aphid control after an application). Our insecticide trials confirmed this; we had massive aphid resurgence where we killed the beneficial insects. There are only two good insecticide choices for sugarcane aphid: Sivanto and Transform. Both of these provide high efficacy with minimal impact on beneficial insects.

**Make the first application count**

Last year we observed insecticide applications of Sivanto and Transform made with high rates and plenty of carrier volume most often did such a good job of control that the few surviving aphids were cleaned up by beneficial insects. Conversely, we observed that fields sprayed with lower rates and/or insufficient carrier volumes frequently did not get control and required a second application.

**Experience is a good teacher**

This pest is manageable. Last year was a bit of trial and error, but after one growing season of intense aphid pressure we are much better equipped in 2016.

## Grasshoppers

Last week I reported heavy grasshopper activity in the northwestern part of the Panhandle. I noticed this week at the research facilities at Bushland the grasshoppers activity was increasing. But, nothing like the activity up north. Here are a few photographs sent to me that shows how heavy the grasshopper populations are and how much damage they are causing.

## Moth Trapping Activity

**Southwestern Corn Borer (SWCB) - graph page 5**

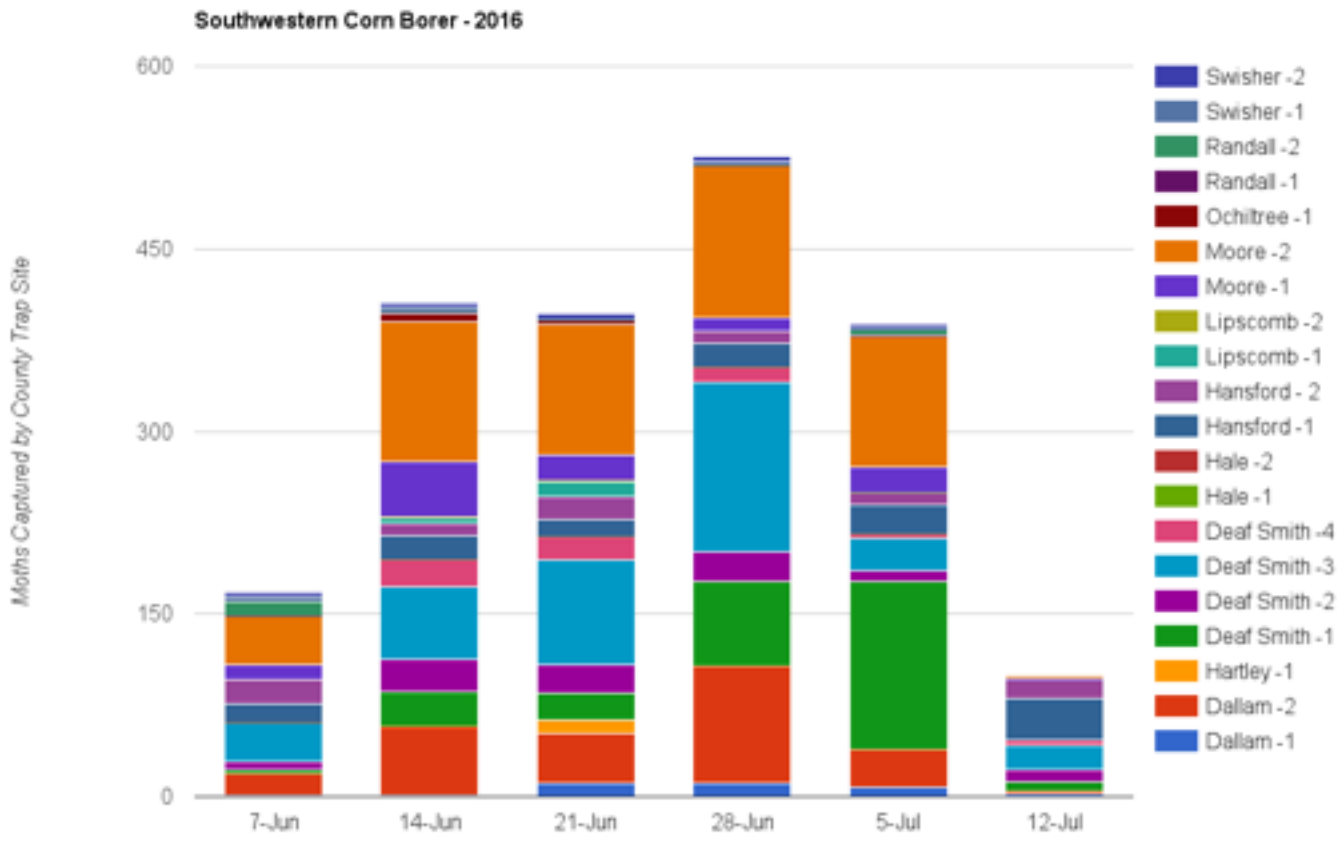
There has been a dramatic drop in southwestern corn borer across the high plains region, which probably represents an end of the 1st moth flight. But, we could begin to see emergence of the 2nd generation SWCB moths from the egg lay of SWCB in early June in a couple of weeks. Non-Bt corn will need to be closely inspected for eggs. Generally the 2nd SWCB moth flights last 4 to 6 weeks with the peak flight occurring during the 3rd to 4th week.

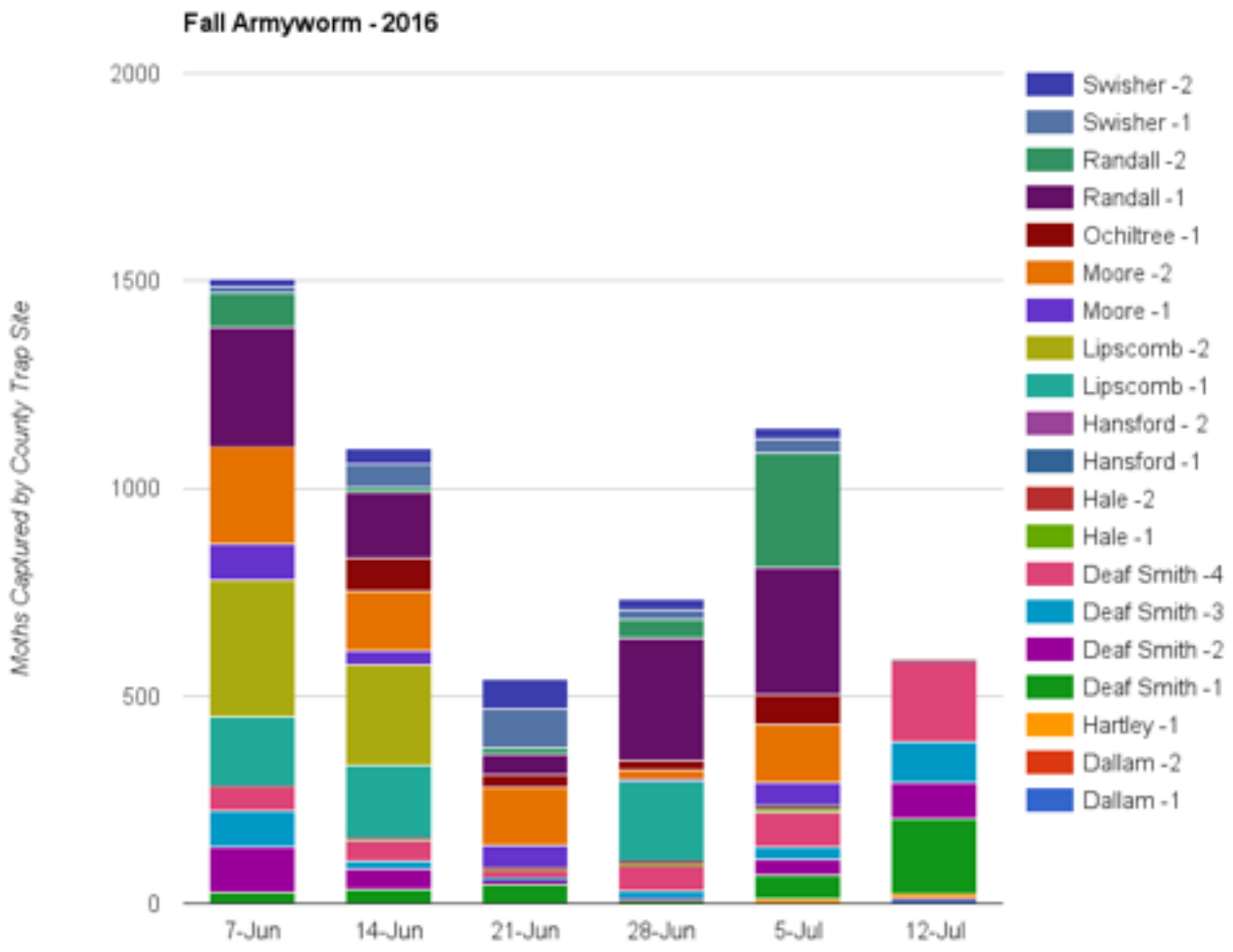
**Fall Armyworm (FAW) - graph page 6**

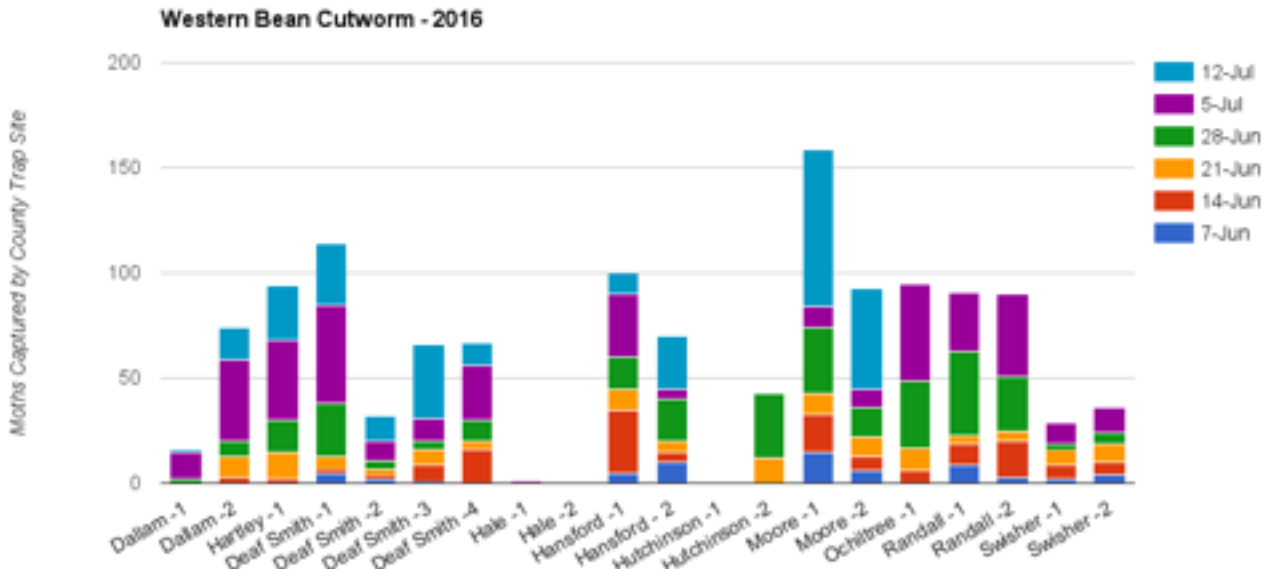
We have had a couple of peaks already of fall armyworm moth activity. But, Deaf Smith county, particularly, had an increase this past week. Have had calls about whorl infestations in grain sorghum. infestations often do not result in economic losses even when leaves are really ragged by larval feeding. Control of infestation in the whorl can be difficult because few spray droplets are deposited in the whorl.

**Western Bean Cutworm (WBC) - graph page 6**

Dallam, Hartley, Moore counties, where traps are located, continue to have active moth flights of WBC. It should be noted that we have WBC moth activity moving out into Hansford and Deaf Smith counties.


Southwestern Corn Borer - 2016
Moths Captured by County Trap Site
600
450
300
150
0
7-Jun
14-Jun
21-Jun
28-Jun
5-Jul
12-Jul
Swisher -2
Swisher -1
Randall -2
Randall -1
Ochiltree -1
Moore -2
Moore -1
Lipscomb -2
Lipscomb -1
Hansford - 2
Hansford -1
Hale -2
Hale -1
Deaf Smith -4
Deaf Smith -3
Deaf Smith -2
Deaf Smith -1
Hartley -1
Dallam -2
Dallam -1


Fall Armyworm - 2016
Moths Captured by County Trap Site
2000
1500
1000
500
0
7-Jun
14-Jun
21-Jun
28-Jun
5-Jul
12-Jul
Swisher -2
Swisher -1
Randall -2
Randall -1
Ochiltree -1
Moore -2
Moore -1
Lipscomb -2
Lipscomb -1
Hansford - 2
Hansford -1
Hale -2
Hale -1
Deaf Smith -4
Deaf Smith -3
Deaf Smith -2
Deaf Smith -1
Hartley -1
Dallam -2
Dallam -1


Western Bean Cutworm - 2016
Moths Captured by County Trap Site
200
150
100
50
0
Dallam -1
Dallam -2
Hartley -1
Deaf Smith -1
Deaf Smith -2
Deaf Smith -3
Deaf Smith -4
Hale -1
Hale -2
Hansford -1
Hansford - 2
Hutchinson -1
Hutchinson -2
Moore -1
Moore -2
Ochiltree -1
Randall -1
Randall -2
Swisher -1
Swisher -2
12-Jul
5-Jul
28-Jun
21-Jun
14-Jun
7-Jun