

JUNE 27, 2014

General Status

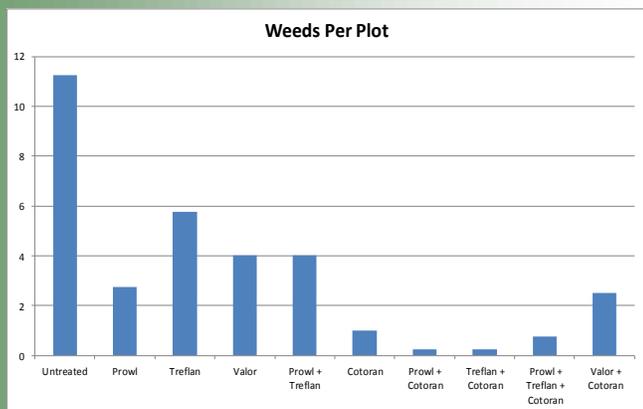
Additional rains blessed our area again late last weekend and early this week bringing Plainview's 2014 precipitation total up to about 9.47 inches, 8.48 of which have come since Memorial Day. Rains have certainly been a welcome relief. There is a considerable amount of confusion about the status of our surviving planted acres and replanted (ing) acres and/or intentions in the rainfall's wake. It is likely we will not know just what we have region wide until the week after the July 4th holiday. I can say that the cotton that survived the weather situations is behind but recovering well and that our early planted grain crops are developing very well and that I have not seen an irrigation system running in several weeks. The scattering of rains has kept many producers out of the field for an extended period of time. Due to this delay, replanting dates for many secondary crops are becoming a concern as are the weed problems and wheat for grain harvest.

Weeds

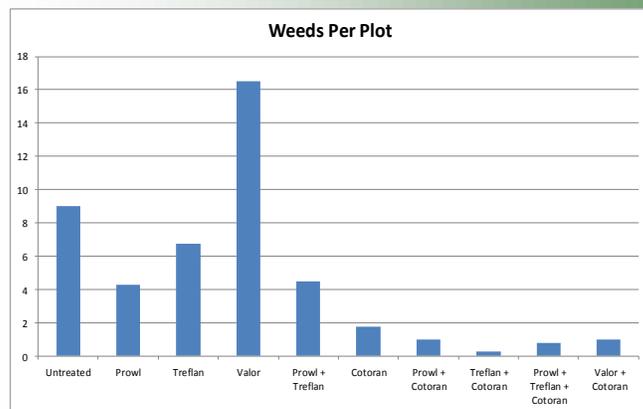
A picture, or in this case a set of graphs on the following page, speaks 1,000 words. These graphs are the latest four weeks of data from our 2014 residual herbicide in cotton trial. In complete fairness, this full-tillage field is not the ideal situation for Valor, but for the purpose of gathering data on it in this situation it was included in the trial. All pre-plant herbicides were applied March 12, 2014. The Cotoran treatments were applied pre-emergence on May 14, 2014. We can see as residual begins to play out for some herbicides faster than others, how most need additional residual MOA (modes of action) to cover an entire growing season, and how resistant pigweed develops in patches. No OVT (over the top) Metolaclor was added to this trial due to the already large and complex nature of this factorial trial although it, or a similar product is recommended in field. No statistics have been run on this data at this time and no significant differences can be claimed until they are.

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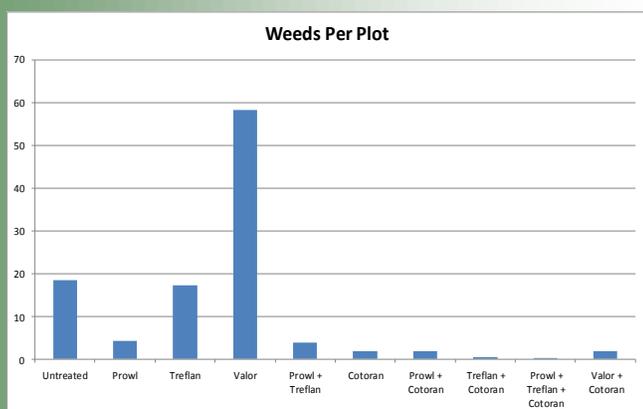
June 5, 2014



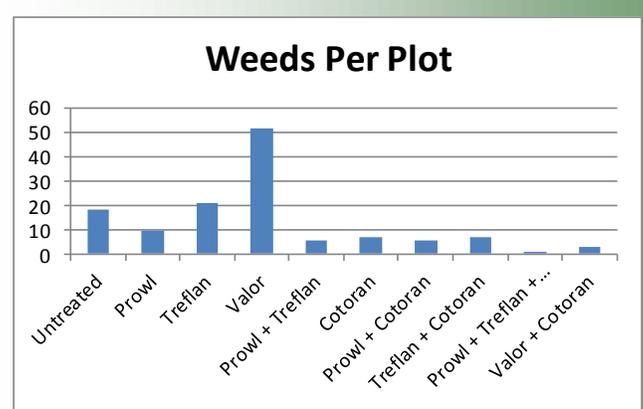
June 13, 2014



June 19, 2014



June 27, 2014



Cotton

Cotton remains widely varied in stage and recovery from damage. I generally feel that our cotton averages out to be about 10 days late at this time, but even that is variable by field. Our program fields ranged from a replanted 2nd true leaf stage to a beautiful just larger than match-head square stage. Most fields have at least reached pinhead square stage.

As cotton goes into reproductive mode and begins setting squares, thrips both generally tend to move away from cotton and the developing plants can tolerate thrips damage much better. Once we start finding squares in the field, our scouting and pest concerns shift seamlessly to fleahoppers and Lygus with fleahoppers concerns taking the lion's share of concern during the first few weeks of squaring.

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Fleahoppers have several preferred host but these guys primarily feed on silver leaf nightshade (SLN) and jump to nearby cotton once the silver leaf nightshade has been destroyed by herbicide or tillage. Fields heavy with SLN are much more likely to develop economic problems with fleahoppers than those without. Adults are about 1/7th of an inch long, extremely flighty, and pale green to greenish white in color. Nymphs of this true bug are smaller than the adult, lack wings, but are otherwise very similar. Fleahopper nymphs may appear similar to the nymphs of a freshly hatched Lygus at first glance, but their slightly ‘grasshopper-like’ hind legs give them away. Because Lygus are potentially much more economically damaging and not all cotton labeled insecticides will control both pests, identifying which pest is present in your field becomes very important.



Even though cotton is only a secondary host for fleahoppers they will can cause significant yield loss if present at economic levels. They feed by stabbing their proboscis or piercing-sucking mouthparts into developing squares and feasting upon the nutrient rich contents. Once a square has been fed on, the cotton plant will usually shed the square, even if the feeding damage is comparatively light. We recommend that field scouts use

dark colored beat-sheets to quickly find and identify cotton fleahoppers. Whole plant inspections in conjunction with the use of these ‘drop-cloths’ are necessary to fully determine both the population of fleahoppers and the damage they are inflicting upon a cotton field. The economic threshold for fleahoppers in match head stage cotton is 35% infested plants with 90% square set or worse.

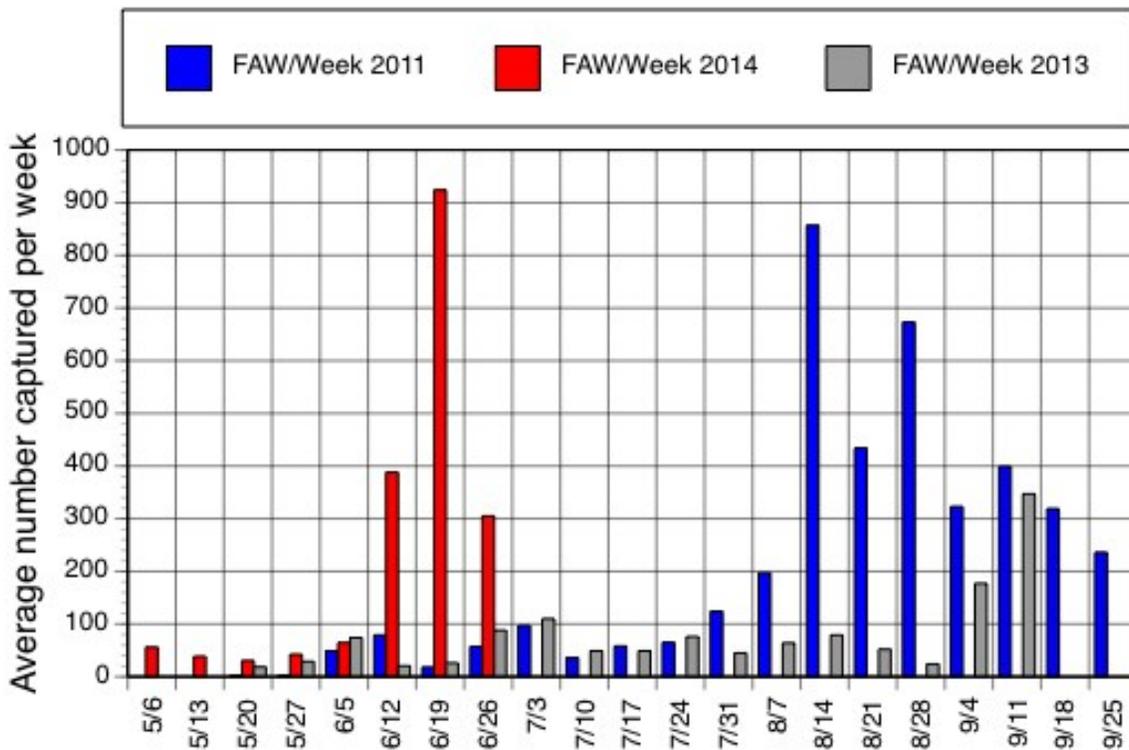
Pests in our program cotton fields have been fairly quiet. Our highest fleahopper infestation rate this week was 8.3% as we only found a few fleahoppers. We have not found any Lygus in cotton to date.

Corn & Sorghum

Our oldest program corn field is only about a week from tasseling while our youngest is just now being planted. The same variance can be found in sorghum except there are many more acres of sorghum that the rain events have delayed planting on. Pests have been fairly light on these crops through the majority of the whorl stages. We are just now picking up consistent (at least 1% of plants infested) whorl feeding from our Lepidopteron pests in non Bt fields. We have found several FAW (fall armyworm) egg masses in corn and sorghum this week, but not consistently from field to field and only during the past two days have we found FAW larva. Until then, all caterpillars found had been corn earworm (bollworm / headworm). Whorl feeding is generally not an economic concern in non Bt corn or sorghum and is certainly not in Bt corn. The following excerpt from today's FOCUS by Dr. Pat Porter, Texas A&M AgriLife Extension District Entomologist in Lubbock about FAW moth flights:

Fall Armyworm Trap Counts Still High

2014 fall armyworm pheromone trap captures (moths per week) at Lubbock. 2011 was a high fall armyworm year.



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Fall armyworm pheromone trap captures at the Lubbock Center have declined this week but are still well above normal levels. Hayden Hadley in Muleshoe is reporting very high numbers in his traps; on the order of 800 moths per week. Gary Cross, Extension Agent AG in Hale County reported 275 moths captured this week. Rick Minzenmayer, Extension IPM Agent in Runnels County, is reporting 4-5 fall armyworm larvae per plant in forage sorghum and relatively fewer in grain sorghum. It seems the fall armyworm outbreak is widespread.

Thanks Pat. If these FAW lay and hatch as heavy here as they have in Runnels county, all grain sorghum, non Bt corn, and even forage sorghums could be at risk of economic FAW infestations soon, even in the whorl stage. I would expect to certainly see problems with FAW in a late maturing grain sorghum field, which looks to potentially be our largest replanted crop this season.

The Good, the Potentially Bad, and the Unknown

This week we have spent quite a bit of time dealing with at least one and maybe two species of little known leaf footed bugs. *Mozena obtuse*, in the family Coreidae, at least is clustering about the whole region causing potential concerns for area vegetable producers, joy for those trying to control mesquite in pastures, great concerns for some horticulturalists and home owners, and another nervous twitch for cotton, corn, and alfalfa producers. The following additional excerpt from today's FOCUS is a joint effort from me and Dr. Pat Porter with Pat carrying the lead. Dr. Porter sums the situation very well here:

[Uncommon Bugs Damaging Peas, Cotton and Mesquite](#)

Potential Threat to Peas (and Other Legumes?), Related Pest on Mesquite

Blayne Reed and Patrick Porter

Last week's FOCUS showed *Mozena obtusa*, a pest of mesquite which we have also found feeding on, and laying eggs in, corn. As of today, Blayne Reed has documented *M. obtusa* feeding in the terminals of cotton. The majority of the bugs were feeding in nearby corn and pigweed, but lesser numbers were damaging cotton. Weed control might shift a greater number of insects to cotton.

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Mozena obtusa, the species found damaging cotton.

To date we have documented large numbers of these insects on area mesquite and this insect has been proposed as a biological control agent for mesquite in Australia. We are also finding it on mimosa trees.



Mozena obtusa on mesquite, Swisher County, 6/26/14. Photo credit Blayne Reed.

Unfortunately, this week we found a very similar looking insect decimating field peas at the Lubbock Center. This bug is about $\frac{3}{4}$ " long and looks a lot like *M. obtusa* but we don't think it is; it is slightly smaller and has a grey body color. *Mozena obtusa* is not known to feed on legume crops, however other species in the genus *Mozena* can feed on peas and other legumes. So at this point we are thinking this is another species in the *Mozena* genus in the family of leaf-footed bugs (Coreidae). We have scouted alfalfa and have not found this insect present.



Unidentified leaf-footed bug feeding on peas and perhaps other legumes.

The damage to peas at Lubbock is impressive. Monti Vandiver, our former IPM Agent in Bailey and Parmer counties, was at the Lubbock Center this week and drove by the pea field and then said he thought he was looking at a herbicide damage trial. The insects feed on the youngest tissue and this causes young leaves to pucker and growing points to wilt and perhaps die. I describe the leaf damage in terms of "like thrips damage to cotton, only on steroids". Our field at Lubbock is severely yellowed as a result of the damage and it is too early to know whether our peas will recover.

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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.

We don't have any treatment thresholds for this insect, but there was approximately one bug per seven plants in our Lubbock field and every plant in the field had significant damage. We treated with bifenthrin (Brigade at 4.0 oz.) but are not sure we got a good kill; there were very few bugs left in the field but we found almost no dead insects. They might have left the field due to the repellent properties of pyrethroid insecticides. We simply don't know which insecticides will be effective. That being said, we wanted to get the word out about a potential threat to peas and other legumes, and we wanted to explain what is going on with our mesquite. RPP and BR.

Thanks again Pat. I should add that I have checked several alfalfa fields and clover growing along the roadsides from Tulia to the edge of Plainview and have not found any leaf footed bugs on these legumes this week. Every Mesquite bush between Tulia and the Briscoe county line is infested by the thousands with *Mozena obtusa*. My personal experience this week with *Mozena obtusa* is that it vastly prefers mesquite first, but in its absence it will feed in corn, then pigweed, kochia, and eventually cotton and potentially peas. That is my theory today.

These last two few photos are of damage to peas in Lubbock, and cotton near Edmonson with an



undamaged plant in the back-ground.



Dr. Ed Bynum, Texas A&M

AgriLife Extension district entomologist in

Amarillo has been cooperating with Pat and I in dealing with these *Mozena* bugs and also has a good right up about them and another insect we typically see this time of year (but seems strangely absent from my radar so far this season), the white lined-sphinx moth, in this week's edition of the Panhandle Pest Update.

Please call or come by with any questions,

Blayne Reed