

MARCH 18, 2015

General Status

Are we ready for a new summer crop season? To quote my father from anytime we were facing something that we knew we needed to cinch up tight for that seemed to sneak up on us, “We better be, because it is upon us.”

There are plenty of challenges facing us for our 2015 crop. The latest drought monitor, March 10, has Hale, Swisher, & Floyd decreasing in severity of drought compared to last season or the southwestern area out of drought altogether. That is good news, but I can state from moisture probes I have taken this week, there is very limited deep moisture available. Our upper soil moisture has been adequate for getting wheat to its current stage looking pretty good and is a good start on building a soil profile. The

moisture has also spurred the growth of

lots of extra ‘green’ in the area. This

‘green’ takes the form of weeds, etc.

and looks like it could be great

alternative host sites for pest insect

populations to build threatening

populations on. We will have to wait

and see about 2015, but 2013 and 2014

were both the lightest commodity pest

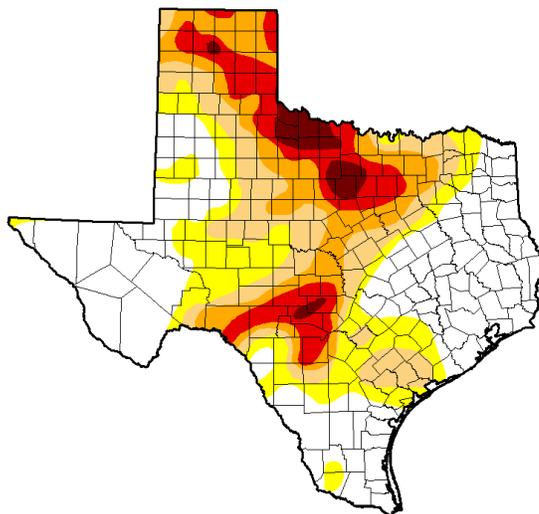
seasons I can imagine. 2015 could swing in the other direction and we are seeing pest activity in

wheat. I can recommend or do little about the market situation but it is a factor that we must

consider in our plans for this season. We do not need to spend one dollar more than we have to,

yet there are some big challenges that we need to get ahead of with a solid IPM plan because I do not

feel we can play catchup. The biggest I can think of is weed IPM in cotton.



Weed IPM in Cotton and 2014 Cotton Weed Trail Results

At this stage in the glyphosate resistant weed rodeo, producers are likely aware of the need to make use of pre-plant residual herbicides, in-season residual herbicides, while mixing up their mode of action and methods of control. Now I feel we are at a point where we are asking the questions,

“What works best?” or “How do I make it work like that?” and “How do I get the most out of these herbicides?” with plenty of “That didn’t work for me, now what?”



A June 2012 photo of a missed spot of a pre-plant residual application earlier in the spring.

Now that we know we are at least a season away from any additional technologies and herbicide resistant cotton we can utilize now, these questions are paramount as it is time to put weed IPM plan into action. With a bit of help from some observances, experiences, and residual weed trial results maybe we can get a better feeling for the answers to these questions.

2014 Residual Herbicide Trial in Cotton

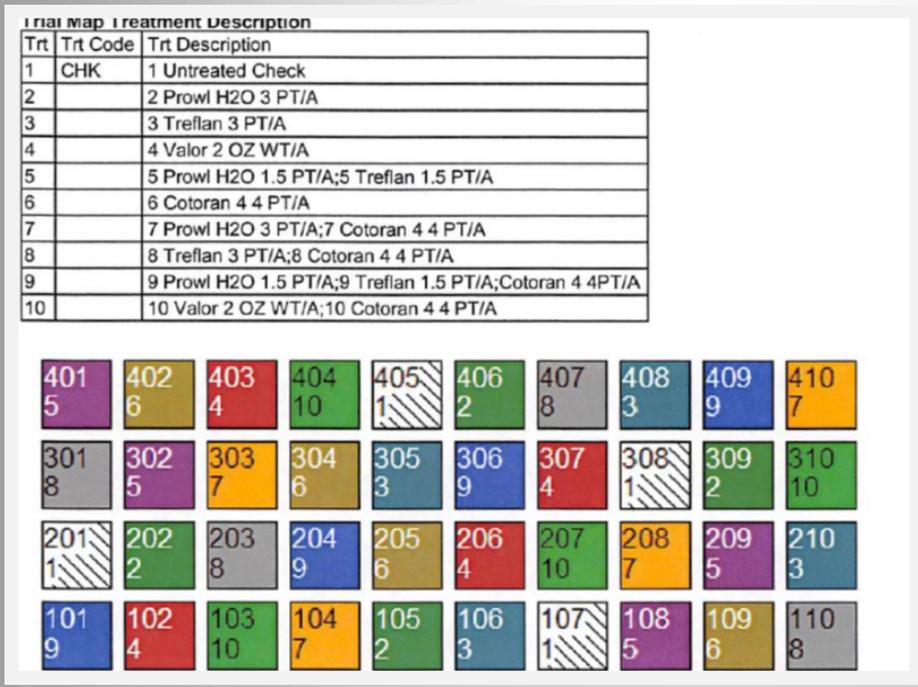
We shared quite a bit of these results as they became known last season and was shown on our Hale / Swisher Mobile Ag Field Day last July. A fresh look at this trial along with some practical observations might prove useful as we head to the field this season. Unfortunately we were not able to evaluate all residual herbicides labeled for cotton, so those utilized in the trial is not a complete list or even a complete list of those recommended or commonly used in the area. This trial was a factorial with a second, at-planting herbicide being the additional factor. All pre-plant herbicides were applied March 12. The at-planting herbicide was applied at planting on May 14. The field failed to establish and was rod-weeded and replanted in early June without any additional herbicide applied. No glyphosate was applied to any treatment for the duration of the trial.



The same 2012 spot post glyphosate application.

Observation 1. So you think you know the rate of that herbicide?

This trial was designed to get a local, good, and up to date look at how maximum rates of these herbicides are performing in the absence of glyphosate. As I consulted the fine print of each herbicide label, I found that I really did not know what the maximum rate for any of these herbicides. There were several fine print details regarding soil type that led to a wide range of rates de-



Detail of treatments used for the trial and field map showing randomization.

pending on a number of factors. I found out that we had not been applying the maximum rate when we felt we had been, almost area wide. At every location I have presented this information this year, there has been debate on what they audience’s perceived rate of these herbicides really is. It has never been the same quoted rate from the audience from presentation location to presentation location. Please keep that in mind as you scan the rates utilized for this trial and please consult a label for your specific soil type before ordering your chemical. I rec-

ommend the maximum rate for your soil type. We might be able to get a little more bang for our residual buck and it might just save you some glyphosate passes or some of the more expensive in-season weed control options later on.

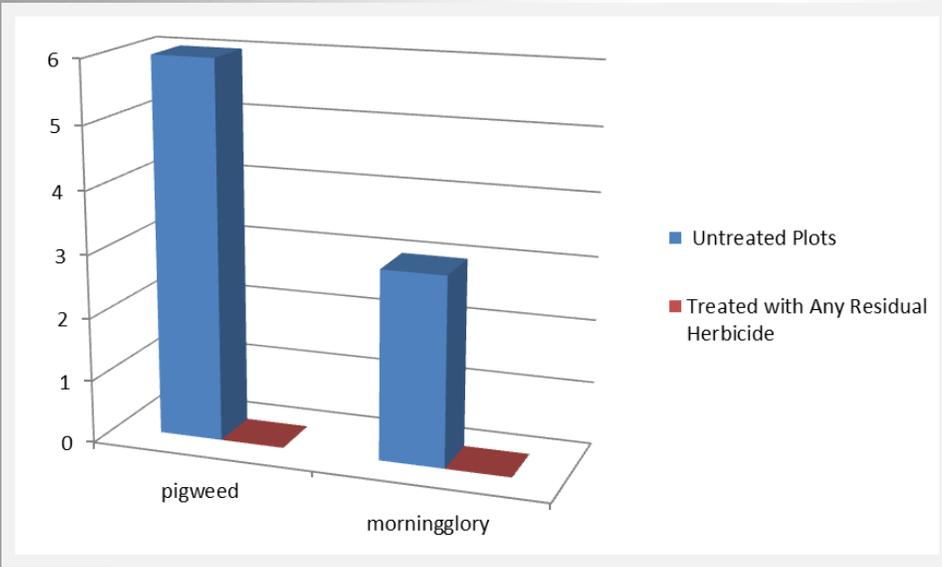
Observation 2. That weed germinated when?

For a multitude of legitimate reasons, many area producers wait as long as possible before applying pre-plant residuals in cotton. For many of us that is a week or less before planting cotton through May. For this trial,

November photo of trial showing untreated plots that re-grew weeds following trial termination, hoeing, and producer cultivation.



we followed label and Texas A&M AgriLife guidelines and recommendations and applied and incorporated our residuals in the late winter-early spring timeframe, March 12 to be specific. We began gathering data in April, well before cotton planting and before most of our producers wanted to apply their pre-plant. This is the graph of the weeds we found already germinated and growing well on April 21.



Data from April 21, 2014 highlighting the average number of emerged weeds per plot in untreated plots compared to plots that had been treated with any residual herbicide for two problematic weed species.

These early results highlighted a weakness many cotton producers have in their existing weed IPM plans, especially if the field is not to be tilled in between pre-plant residual application and cotton planting. Due to these results we began scouting cotton fields belonging to our producer members of the Plains Pest Management Association. The following photo was taken on April 21, two days before the producer applied his pre-plant

residual that was incorporated via water. I was unable to convince the producer that his 2014 weed problems in this field were not from a residual herbicide failure despite my visitation and evidence. The weeds were only visible when kneeling.



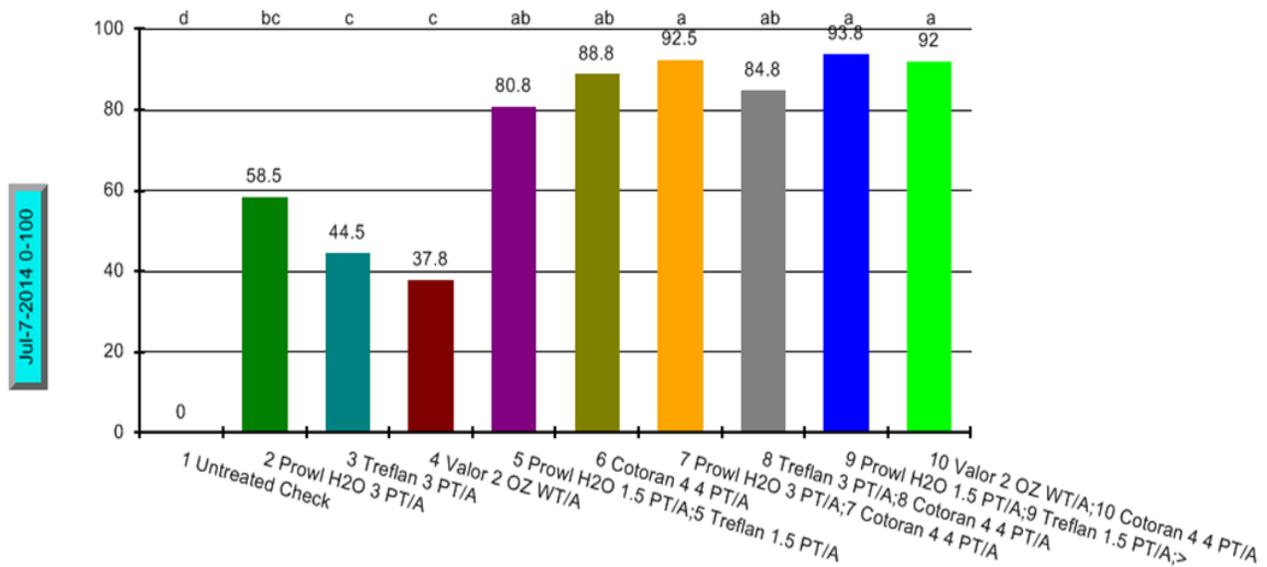
April 21, 2014 close-up photo of emerged weeds prior to pre-plant application.

I would suggest we consider making our pre-plant residual herbicide applications much earlier than many of us have attempted recently. If we can get ahead of these weeds early, we should have an easier time in-season. There could be a few other benefits of earlier pre-plant residual herbicide applications such as time allowed for natural chemical incorporation following our mechanical or water incorporation or winter weed control if the herbicide also has contact activity.

Observations 3. Proper herbicide placement and Incorporation, incorporation, incorporation...

In this trial that was under conventional till, we utilized Valor. Valor is a more soil mobile product that is historically a good fit for high cover no-till situations where it can successfully be incorporated via water alone. In this situation Valor should be well outside of its element. In this trial Valor provided good control from March through to mid-May in this trial but did play out through June and July compared to other treatments in this conventional system. This should be viewed as an example that highlights the need for proper herbicide placement. As we reach desperately for weed control answers, I urge producers to play to each herbicide's strengths. Valor, or any of the other good no-till herbicides there are to choose from are not likely to be the best fit in conventional tillage while the proven conventional till herbicides are not likely to perform that well in no-till situations.

July 7, 2014 results in terms of % weed control compared to the untreated check



Trial ID: 2014 Weed trial

We also utilized Cotoran at planting in this trial both alone and onto of our other treatments. The results of this trial shows that Cotoran at this max rate gave a good return in weed control in all situations. It should also be noted that we placed and fit this herbicide perfectly. In this trial, Cotoran was placed behind the planter into a weed-free environment due to our rod-weeding. The Cotoran alone treatment was untreated until planting and had plenty of weeds that the pre-plant cultivation cleaned up. If there had been no rod-weeding cultivation that cleared the field, I would submit that this Cotoran treatment would have been useless over-the-top of existing weeds.

Whether you practice conventional till, no-till, or something in between we have got to know these residual herbicides, where and when to place them, and how to properly incorporate them.

Observation 4. You did what?! And it worked?!

I recommend we take advantage of as much experience as you can, especially if what we are currently doing is not working. That experience can be our own, researchers, consultants, corporate, or even dealers. The mixed treatment of Prowl H2O and Treflan included in this trial was such an example. A few area producers had been indorsing this mixed application but there had been no official documentation of it working. It made no sense that it should improve herbicide performance over either herbicide alone as the active ingredient is the same in both herbicides. The results of this trial proved this mixed application works very well although we are left guessing as to why. Experience is as good as gold.

Wheat Pest Notes

Over the past month and a half there has not been a lot of time to get out and scout fields. What few wheat fields I have been able to scout during that time seem to have quite a bit of insect activity in them but not very many were in any serious shape. Green bugs, among a plethora of other aphid species, are still trying to make nuisances of themselves . The fields I peaked into Monday and Tuesday fit this description well. Pretty easy to find these pests, but a huge amount of predator and parasitoid activity holding them in check.





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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.

Dr. Ed Bynum, Texas A&M AgriLife Extension, District 1 Entomologist has been do-

ing a touch of wheat scouting to our north also. Here is an excerpt from today's edition of the

Panhandle Pest Update Newsletter that Ed puts out;

Wheat Aphids

If it has been awhile since you have checked wheat fields for aphids, you may want to consider rechecking, even if you have already sprayed for greenbugs recently. Last Friday, I stopped to look at a field. Greenbugs, Russian wheat aphids, and bird cherry-oat aphids were easily found. Winged forms (alates) of each of the aphids were active and feeding along with the non-winged aphids. These winged aphids will be flying and can be carried by our winds across the field and to other fields. For this reason, fields that have been previously treated could be re-infested. And, with the warmer temperatures aphid infestations could develop to damaging levels before lady beetles and parasitic wasps, predominately *Lysiphlebus testaceipes*, can control the infestations.



Both the greenbug, *Schizaphis graminum* (Rondani), and the bird cherry-oat aphid, *Rhopalosiphum padi* (L.), are good vectors of the viruses that cause barley yellow dwarf/cereal yellow dwarf. The spread of the disease depend on the presence of the viruses in the aphids and the movement of the winged aphids in a field or across fields.

Action Threshold Table for Greenbugs	
Plant Height (inches)	Number of greenbugs per linear foot
3 - 6	100 - 300
4 - 8	200 - 400
6 - 16	300 - 800

Spring Action Threshold Table for Russian Wheat Aphid

Growth stage	% of damaged and infested plants
Regrowth to early boot stage	5% to 10%
Early boot to flowering	10% to 20%
After flowering	More than 20%
Plants with even a single infested or damaged tiller should be considered infested.	
Peairs, F. B. Aphids in Small Grains, Colorado State University, no. 5.568	

Thanks Ed. To view the full story please connect with Ed's blog at:

<http://txppipm.blogspot.com/>

As of today, I have not found any Russian Wheat Aphids in Hale, Swisher, or Floyd and I have not found any field near ET. I have seen the potential and recommend getting a good count on the pest, and / or disease status in this wheat as we begin jointing. Good Luck,

Blayne Reed