

Hub of the Plains Pest Management Report

A newsletter about integrated pest management for growers in Lubbock, County

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CURRENT CROP CONDITIONS

We have been having perfect weather for cotton production. It seems that most of you have received at least an inch of rainfall on a weekly basis. The highs have been in the mid eighties and the lows in the upper sixties and low seventies. The average percent square set is 93 percent, the highest that I have seen since I have been in Lubbock County. With that said, I wonder if we can maintain this fruit load going into bloom. Many fields will be blooming in the next two weeks. If we experience record highs the next two weeks you can bet your boots or "give me" cap that you will shed fruit. I realize that in most areas the soil profile is full. For most of you, your soil can only hold 3.5 to 4 inches of water. The plants at this time are only utilizing the first foot or so of soil moisture or in other words are tapping into about 1.5" or 2" of available moisture. When these plants start blooming, and the temperature sores into the upper nineties with low humidity they will start using as much as 0.25 inches per day or about an inch of moisture every four to five days. I guess the point I am trying to get across is that you had better be ready to irrigate at a moments notice.

Enough with the weather and irrigation, we should discuss mepiquat chloride applications or Pix. With the recent greenhouse weather we have been having, I am seeing quite a few fields that are ready for Pix applications. Many of you have internodal lengths that are exceeding 1.5 inches. To put this another way,

The scouts are finding **fleahoppers** ranging from

some of you have plants that are 16 inches tall with only six squares per plant. The producers that I will target

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first for a Pix application are those of you utilizing drip irrigation or are aggressively managing your pivots. For those of you that have limited water or are row watering, I am going to wait until bloom before I make a decision. The reason I am going to wait is that fields that have been treated with Pix cannot stress for 21 days following the application. In looking at the long range forecast, the highs will be in the mid to upper nineties this weekend and in the mid nineties during the week. The other reason I like to wait is that I have yet to see a yield increase with the use of Mepiquat chloride in any of the tests that I have conducted. Now you might ask yourself why I would use mepiquat chloride if it has no affect on yield. The only reason I use this product is to hold down the growth. Basically, I like to keep the height of the cotton below 32 inches. Cotton that grows taller than 32 inches starts to affect stripper efficiency.

WHAT THE SCOUTS ARE FINDING

3 to 53 per 100 terminals. Compared to last week,

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flea hopper numbers are increasing. We are seeing this pest mainly in and around CRP fields, weedy fields and pastures. I believe we are seeing an increase in this pest for several reasons. The cotton is big enough at this time to provide shelter and shade and most of the wild flowers have quit blooming. We have yet to see dramatic fruit loss to this pest at this time. However, I would advise those of you that have late planted cotton to really monitor for this pest the next several weeks. For those of you with early planted cotton, we rarely treat for this pest when the cotton is blooming and as I have already mentioned, many of you will start seeing blooms in the next 10 days. **Bollworms** are being found in very small numbers in most program fields. We generally do not find them in our checks but will see one or two flared squares when walking to and from the scouting location. The heavy number of beneficial insects is keeping this and most pests in check. **Lygus bugs** are still being found in very low populations in most program fields. We are not finding many **cotton aphids** due to the high number of lady beetles being found in every field.

NITROGEN UPTAKE IN COTTON

by C. Mark Brown, CEA-Agriculture

Of all the plant nutrients, nitrogen has the widest physiological role in the plant, and is the most likely to limit production. Surplus nitrogen, however, can increase vegetative growth, thus hindering both drought tolerance and boll retention. A point to remember is that nitrogen uptake into the cotton plant tracks closely with the water use curve. By first bloom, approximately 30 % of total seasonal N uptake is complete. However, N uptake increases rapidly so that by the second week of bloom, an additional 30 % of total seasonal N uptake occurs. This can translate to 3 to 4 lbs per acre per day at peak bloom.. Nitrogen must be available to meet the requirements, or crop performance can suffer.

Suggested Insecticides for control of cotton fleahoppers and Lygus.

Formulated amount per acre

Insecticide	Fleahopper	Lygus
Address® 75S	4 - 5.33 oz.	10.66 - 21.33 oz
Address® 90S	3.34 - 4 oz	9 - 17.77
Orthene® 90S	3.34 - 4 oz	9 - 17.77
Orthene® 97	3.10 - 3.71 oz	8 - 16 oz

Capture® 2E	----	2.6 - 6.4 oz
Baythroid® 2E	----	1.6 - 2.6 oz
Leverage® 2.7SE	----	3.75 oz
Karate® 1E	----	2.56 - 3.84 oz
Karate® 2.08 CS	----	1.28 - 1.92 oz
Ammo® 2.5 E	----	2 - 5 oz
Decis® 1.5 E	----	1.11 - 1.62 oz
Sevin® 80S	0.6 - 1.25 lbs	----
Lorsban® 4E	6 - 16 oz	----
Bidrin® 8E	0.8 - 3.2 oz	8 oz
Dimate® 4E	4 - 8 oz	8 oz
Dimethoate® 2.67E	5.3 - 10.5 oz	10.7 oz
Dimethoate® 4E	4 - 8 oz	8 oz
Dimethoate® 5E	3.2 - 6.4 oz	6.4 oz
Asana XL® 0.66E	----	5.8 - 9.6 oz
Provado® 1.6F	3.75 oz	3.75 oz
Trimax 4F	1.5 oz	
Steward® 1.25SC	9.2 - 11.3 oz	----
Lannate® 2.4LV	6 - 12 oz	0.75 pt
Methyl Parathion 4E	3.2 oz	1 - 2 pts
Vydate® 2L	1 pt	1 pt
Vydate® 3.77 C-LV	8.5 oz	12.7 - 34.0oz
Metasystox - R® 2E	1 pt	----
Parathion 8E	----	8 - 16 oz
Scout® X-tra 0.9E	----	2.28 - 2.84 oz
Fury® 1.5 E	----	2.99 - 4.26 oz

The use of synthetic pyrethroid insecticides may increase cotton aphid numbers

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