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Crop Management Newsletter

News about Crop Management for producers in Dawson and Lynn Counties.

Thanks to the sponsors and the gins who support the Dawson/Lynn IPM Program
(found on page 2)

Current Conditions

– Cotton fleahoppers still need watching in fields not yet flowering,
– bollworm activity is present at very low levels,
– cotton is still progressing nicely - nearly all fields are blooming and
– **we sure could use a rain**.

Our current average plant structure

At this point there is not much difference between the dryland and irrigated crops - but separation is starting to occur.

	Dryland	Pivot Irrigated
Plant Height	15.9	16.2
Total nodes	14.4	15.4
1st fruiting node	8	
% square set	91.1	93.3
% boll set	87.7 (67% of fields)	88.5 (50% of fields)
NAWF	6.9	7.1

IPM Program

Should you make an insecticide application to a field being scouted by the IPM Scouting Program, PLEASE give me a call.

Cotton Bollworm

I am finding a few eggs scattered about, I found one small medium-sized worm and a few damaged squares and small bolls.

Remember, the worm must feed on the cotton to ingest the Bt toxin before it will be killed. Therefore, even though you have a "bollgard" type cotton variety planted, you will still see some evidence of feeding if there is bollworm activity in your field.

The activity I encountered this week was occurring in the middle of the plant canopy. Which is where the moths will lay their eggs during hot conditions.

(You might remember the following exact information from last year. I am short on time and the information is dang good and timely - so I just used that cut-and-paste option that I learned about on this computer.)

In our scouting program, we divide a field into four quarters and check five consecutive plants from two locations in each quadrant for a total of 40 plants per field. When I first enter a field, I pick a number and that is how many rows I am going into the field (never less than thirty). I may sit down right there or I might

walk so many paces one way or the other and check there. Now make sure where you end up is an area which is representative of the field. Then I repeat the number choosing process to end up in my second location of the quadrant. Regardless of where I am finding bollworm eggs or the crop and environmental conditions, I always do whole plant counts. That way I am confident in what I am finding. Our typical threshold is about 5,000 treatable worms (less than ½ inch) per acre and going up to a threshold between 8,000 to 10,000 treatable worms per acre depending on the field. Once worms have grown to larger than ½-inch long, natural and insecticidal control are less effective.

When the eggs and worms are in the terminal area, it benefits us in two ways. First, examination of the upper third of the plant may be all that is needed to make a sound management decision. Second, they are most vulnerable to control by insecticides and beneficial insects and spiders.

To calculate your counts to a "per acre" count all you need to know is three things: the number of plants per acre, the number of plants you checked (around 40) and the number of worms you found.

To calculate plants per acre, count the number of plants in:

17 row feet (for 30 inch rows)
14.5 row feet (for 36 inch rows)
13 row feet (for 40 inch rows)
9.5 row feet (for 54 inch rows),

from several representative locations in the field, average and multiply by 1,000.

To calculate worms per acre divide your plant population by the number of plants you checked and multiply by the number of worms or eggs or beneficials or blooms or whatever you found on those plants.

$$\text{worms, eggs, beneficials etc per acre} = \frac{\text{plant population}}{\text{\# plants checked}} \times \text{the number of worms, eggs, beneficials etc counted.}$$

There are several people who report worms or eggs as a percentage. I am not sure exactly how they are figuring this number but I believe they are calculating as a percentage of the plants with worms. The question I have is if there are two worms on one plant, is this calculated as 100% or 200%? Then, after one worm is found on a plant is the rest of the plant examined for additional worms or does the scout go to the next plant? So be sure you understand exactly what is meant when you hear a worm infestation given as a percentage. I always try to find out the total number of worms or eggs counted and the total number of plants checked.

Special THANKS to those who support Agriculture and the Lynn/Dawson IPM Program

All-Star Sponsorship Level

Lamesa Cotton Growers

Dawson County Commissioners Court

Premium Sponsorship Level

Nix Implement

Major Sponsorship Level

Lytegar Electric Coop

Many Thanks to the Gins who participate and support the Lynn/Dawson IPM Program

Adcock Gin
Farmers Association Coop - O'Donnell
Flower Grove Coop
King - Mesa Gin
Tinsley Gin
United Gin Corporation
Woolam Gin

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Heat Units Totals									
	Tahoka			O'Donnell			Lamesa		
	May 23	June 1	June 10	May 23	June 1	June 10	May 23	June 1	June 10
May 23-31 (actual)*	71.5			77			79		
June 1-30 (actual)*	492	492		500.5	500.5		506	506	
June 10-30 (actual)*			353			357			363
July 1-22 (actual)*	418.5	418.5	418.5	429.5	429.5	429.5	445	445	445
July 23-29 (actual)*	160.5	160.5	160.5	168.5	168.5	168.5	164.5	164.5	164.5
Total	1142.5	1071	932	1175.5	1098.5	955	1194.5	1115.5	972.5
HU needed in to obtain	1057.5	1129	1268	1024.5	1101.5	1245	1005.5	1084.5	1227.5

* Based on the Texas Tech Mesonet temperatures for each location.

^ Based on the daily average temperatures for the month from the Weather Channel.

The following tables give the rainfall, high and low temperatures and heat units by date for July 23 - 29.

Tahoka

Date	Rainfall	High	Low	Heat Units
7/23/2015	0	96	74	25
7/24/2015	0	96	72	24
7/25/2015	0	96	67	21.5
7/26/2015	0	97	69	23
7/27/2015	0	97*	71	24
7/28/2015	0	97*	69	23
7/29/2015	0	95	65	20
Total	0			160.5

O'Donnell

Date	Rainfall	High	Low	Heat Units
7/23/2015	0	97	75	26
7/24/2015	0	97	72	24.5
7/25/2015	0	97*	71	24
7/26/2015	0	97*	70	23.5
7/27/2015	0	97*	74	25.5
7/28/2015	0	97*	71	24
7/29/2015	0	94	68	21
Total	0			168.5

Lamesa

Date	Rainfall	High	Low	Heat Units
7/23/2015	0	97*	74	25.5
7/24/2015	0	97*	71	24
7/25/2015	0	97*	68	22.5
7/26/2015	0	97*	69	23
7/27/2015	0	97*	70	23.5
7/28/2015	0	97*	69	23
7/29/2015	0	97*	69	23
Total	0			164.5

* Actual temperature exceeded 97degrees - I max-out my HU calculations at 97 degrees.