

July 23, 2015 - Volume XXIII - Number 11

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

A lot has happened this week:

- Cotton fleahoppers are expanding into new areas,
- despite the higher temperatures - cotton is progressing nicely - more fields are blooming,
- I detected a few worm damaged squares this week.

Our current average plant structure

Again, I will not separate the dryland from the irrigated. I will probably start separating next week as we are seeing more of the pivots start to get cranked up this week.

	This week	Last week
Plant Height	14.9	9.4
Total nodes	14.0	11.8
1st fruiting node	8	
% square set	93.1	96.3
% boll set	85.2 (20% of fields)	100 (6% of fields)
NAWF	8.6	10

IPM Program

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

Cotton Fleahopper

Cotton fleahopper numbers have increased to levels of concern in most of the fields we are scouting.

So, why do fleahoppers seem to be more of a problem for us this year?

This was a question I was asked.

My answer/thoughts: I don't think there are anymore fleahoppers this year than other years at this time. My experience is that fleahoppers always seem to be more abundant in the cotton towards the end of July as the preferred weed hosts start drying down and are controlled in the fields. This forces the fleahoppers over into the cotton. This year our cotton is at a "younger" physiological stage. Typically we are blooming at this time and at the first week of bloom we disregard fleahoppers as a economical damaging pest. However, this year we are still in the squaring stage - leaving our crop vulnerable to the fleahopper.

See July 13 newsletter (#8) for discussion of Cotton Fleahopper. Below is a table listing the Suggested Insecticides for Cotton Fleahopper Control.

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The Texas A&M University System, U.S. Department of Agriculture and the County Commissioners Courts of Texas cooperating.

Suggested Insecticides for Cotton Fleahopper Control

Insecticide	Formulated Rate per Acre
Address® 75S	4 - 5.33 oz.
Address® 90S	3.34 - 4 oz.
Orthene® 90S	3.34 - 4 oz.
Orthene® 97	3.10 - 3.71 oz.
Intruder 70 WP	0.6 - 1.1 oz.
Lorsban® 4E	6 - 16 oz.
Bidrin® 8E	0.8 - 3.2 oz.
Dimethoate® 2.67E	5.3 - 10.5 oz.
Dimethoate® 4E	4 - 8 oz.
Dimethoate® 5E	3.2 - 6.4 oz.
Provado® 1.6F	3.75 oz.
Trimax 4F	1.5 oz.
Steward® 1.25SC	9.2 - 11.3 oz
Lannate® 2.4LV	6 - 12 oz.
Methyl Parathion 4E	3.2 oz
Vydate® 2L	1 pt.
Vydate® 3.77C-LV	8.5 oz.
Centric 40WG	1.25 - 2.5 oz.

When is Early Square Shed Most Damaging?

Early fruit shed is most harmful when cotton is planted late or when the growing season is short - sounds like what we are facing this year. Time for recovery is not available and the key fruiting branches, 3 to 8, become even more critical.

Fruiting branches 3 to 8 are the most robust on the plant and may account for 75% of the yield. By the time the 3rd fruiting branch is the plant has switched to the production of fruiting branches. Since the 1st and 2nd position squares on fruiting branches 3 to 8 appear prior to significant boll set, they seldom shed due to physiological reasons and may exceed 95% retention in the absence of insects. Fruiting branches 3 to 8 constitute the bulk of the yield unless insects remove squares or stress limits boll retention later in the season.

Knowing the above information - this is why this year, with the fleahopper populations lining up with our squaring cotton, we are more concerned with the Cotton Fleahopper.

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**

Tommy Doederlein

Tommy Doederlein
Extension Agent - IPM
(806)872-3444 (office)
(806)759-7030 (cell)
t-doederlein@tamu.edu

Understanding the Cotton Field Report

Cotton Field Report									
Field Number:	TD-1	Date:							
Producer:	Tommy Doederlein	Pattern	2x1	Row spacing	40	Production System	dryland	Variety	unknown
Plants / Acre:	32,548	Number of Plants Checked: 							
Growth Stage:	<input type="checkbox"/> True Leaves	<input type="checkbox"/> Pinhead	<input type="checkbox"/> Matchhead	<input type="checkbox"/> 1/3 Grown	<input type="checkbox"/> 1st Bloom	<input type="checkbox"/> Bloom/Boll	<input type="checkbox"/> Cutout	<input type="checkbox"/> Open Boll	
Height/ Node Ratio:	ERR	Total Nodes:			Plant Height:				
% square set:		1st position squares / Acre:						NAWF	
% boll set:		1st position bolls / Acre:							

Plants per acre - The number of plants per land acre - Calculated by counting the number of plants in 3-row feet from 12 consecutive rows from four random locations in the field; usually taken between the 3rd and 6th true-leaf stage.

Number of Plants Checked - The number of individual plants that are scouted. Typically there are 28 to 40 plants checked each week depending on the insect activity and populations. There are 7 to 10 plants scouted from four random locations.

***Growth Stage** - The growth stage of the field is determined to have advanced to the next stage once 50% of the plants reach that stage.

Height /Node Ratio (H/N) - Calculated from the average Plant Height and the average Total Nodes per plant. The H/N is often used to determine the need for applying a PGR.

***Total Nodes** - Both fruiting and vegetative nodes are counted. Starting at the cotyledons (counted as zero) and counting to the upper most leaf that is unfurled to the size of a nickle.

***Plant Height** - Measured from the cotyledons to the terminal, to the nearest inch.

% Square Set and % Boll Set - The average number of 1st-position fruit retained per plant.

***NAWF (Node Above White Flower)** - Used to monitor field development and to determine physiological cutout (NAWF=5). NAWF is calculated once a field reaches first flower.

*The average from 10 representative plants (2 plants from two locations and 3 plants from two locations).

I was asked “how on my field report can my % square set increase? The plant cant regenerate the lost squares, right?”

Right! This may happen during the first and second week of squaring. What happens in this instance is one of two things: 1) Since we are taking our measurements from random plants from across the field, we might get a plant one week in which most of the squares were knocked off for whatever reason and the next week we do not encounter a similar plant. Or 2) which is the more likely scenario, the plant is adding nodes and therefore the number of fruiting positions are increasing and the retention of the added squares is high which will calculate to an increased percent retention. With the addition of more squares, the percentage that each individual square represents of the total decreases.

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 1-16 (actual)*	291.5	291.5	291.5	292.5	292.5	292.5	308	308	308
July 17-22 (actual)*	127	127	127	137	137	137	137	137	137
Total	982	910.5	771.5	1007	930	786.5	1030	951	808
HU needed in to obtain 2200	1218	1289.5	1428.5	1193	1270	1413.5	1170	1249	1392

* 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 17 - 22.

Tahoka

Date	Rainfall	High	Low	Heat Units
7/17/2015	0	94	71	22.5
7/18/2015	0	96	67	21.5
7/19/2015	0	94	68	21
7/20/2015	0	96	70	23
7/21/2015	0	90	67	18.5
7/22/2015	0	93	68	20.5
Total	0			127

O'Donnell

Date	Rainfall	High	Low	Heat Units
7/17/2015	0	97	70	23.5
7/18/2015	0	97	69	23
7/19/2015	0	94	70	22
7/20/2015	0	97	73	25
7/21/2015	0	92	70	21
7/22/2015	0	95	70	22.5
Total	0			137

Lamesa

Date	Rainfall	High	Low	Heat Units
7/17/2015	0	97*	69	23
7/18/2015	0	97*	65	21
7/19/2015	0	97*	70	23.5
7/20/2015	0	97*	72	24.5
7/21/2015	0	94	70	22
7/22/2015	0	97*	69	23
Total	0			137

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