

# UPPER COAST CROP IMPROVEMENT NEWSLETTER

Matagorda

Wharton

Jackson

210 South Rusk-Wharton, Texas 77488



Dan D. Fromme  
EXTENSION AGENT-IPM  
OFFICE: 979-532-8040  
FAX: 979-532-8863  
HOME: 979-282-2574  
E-mail: d-fromme@tamu.edu



VOL. 9 No. 2

<http://entowww.tamu.edu>

May 13, 2005

## IN THIS ISSUE

- TPMA Website
- Upper Coast IPM Program Sponsors
- Cotton Insect Situation
- Economic Thresholds for Fleahoppers
- Heat Units
- Crop Development Stages
- Rainfall
- Did You Know

## TPMA Website

The Upper Coast Crop Improvement newsletter and other Extension IPM Program newsletters from across the state can be viewed at the Texas Pest Management Association website at [www.tpma.org](http://www.tpma.org).

## Upper Coast IPM Program Sponsors

Moses Gin Farmers Coop of El Campo

Farmers Gin of Palacios Vanderbilt Gin

Danevang Farmers Coop

## Cotton Insect Situation

During the past week (5/9-5/12), growth stages of cotton in the Tri-County area of Wharton, Jackson, and Matagorda counties ranged from three to four true leaves to pinhead square.

For the first six weeks of the 2005 season, aphid numbers have been hard to find to very low. Thrips pressure on cotton that had not reached the five true leaf stage appeared to be a lot lower during the past week. Looper numbers decreased in cotton fields throughout the three county area. Number of fleahoppers in squaring cotton ranged from 0 to 5% which is well below the economic threshold level. Other pests found

occasionally in low numbers included yellow striped armyworms.

## Economic Thresholds for Fleahoppers

Fleahopper adults and nymphs suck sap from tender portions of the plant, including small squares. Pinhead size and smaller squares are most susceptible to damage.

The decision to apply an insecticide should be based upon the number of fleahoppers present. As the first small squares appear (5 to 6 leaf stage), examine the main stem terminal buds of the plants. For each acre in a field, one plant should be examined. At each site or location of the field, 25 plants should be examined. For example, when scouting in a 100 acre field - four different locations in the field will be scouted. At each location, 25 plants will be examined for a total of 100 plants. The number of fleahoppers found divided by the 100 plants examined will give you the percentage amount of fleahoppers in your field.

During the first three weeks of squaring, 10 to 15 fleahoppers per 100 plant terminals may cause economic damage and an insecticide treatment is warranted. As plants reach first bloom, fleahopper control is not justified after the first week of bloom. Throughout the past decade, numerous trials by Dr. Roy Parker have provided ample evidence that the 10 to 15 fleahoppers per 100 plant terminals is without a doubt and undeniably correct.

## Heat Units

So far, the 2005 growing season has been a cool one for cotton. The two enclosed charts included with this newsletter compare this year versus the historical averages for a planting date of **April 1st**. The colored chart compares the progression of degree days (heat units) compared to our normal or historical averages. The black and white chart compares total heat units accumulated for 2005 compared to the historical averages (source: <http://cwp.tamu.edu>). How does this effect

the growth and development of the cotton plant? Obviously we are behind schedule this year. How far are we behind? The following table in the next paragraph will give us this information.

### **Occurrence of Crop Development Stages**

According to the information provided below, as of May 11<sup>th</sup>, we are running about 7 days behind schedule in reaching the first square stage for a field planted on April 1<sup>st</sup> in Wharton County. Cool weather or low number of heat units accumulated so far as discussed in the previous section of this newsletter is the primary factor or variable. This information is easily generated by utilizing the crop weather station network at <http://cwp.tamu.edu>. The following table is an example of the information generated by the crop weather station located at Rancho Grande farms near Crescent in Wharton County.

**Table 1.** Occurrence of Crop Development Stages, Wharton County Crop Weather Station, Rancho Grande Farms Located Near Crescent.

	Estimated date for current year (2005)	Estimated date for avg. year
Emergence	4/8	4/10
First Square	5/11	5/4
Pinhead Square	Not at this stage yet	5/8
Matchhead Square	Not at this stage yet	5/15
First Bloom	Not at this stage yet	6/10
First Open Boll	Not at this stage yet	7/23

### **Rainfall**

Below are the 2004 and 2005 rainfall comparisons from the crop weather station located at Rancho Grande farms near Crescent in Wharton County.

**Table 2.** 2004 and 2005 rainfall amounts, Rancho Grande Farms, Wharton County.

	<b>2005</b>	<b>2004</b>
January	1.68	3.17
February	4.37	3.53
March	3.99	2.56
April	1.26	4.62
May	2.04	6.64
Total	13.34*	20.52

Source: <http://cwp.tamu.edu>

\* as of 5/11/05

### **Did You Know**

The earliest known examples of using natural enemies are believed to be in China, where ants were placed in citrus to suppress caterpillars and beetles. Bamboo bridges were tied between branches to encourage ant movement from tree to tree.

