



Gaines County Cotton/Peanut News

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General Situation

This will conclude the 2005 IPM newsletters, but do not hesitate to call if you have questions.

The 2005 crop is finishing at a steady pace with high temperatures in the 90's and a dry forecast for the upcoming week. The majority of the cotton has open bolls and is finishing out rapidly. Timing of harvest aid applications is next in line for the

cotton crop and information from Dr. Randy Boman is provided below.

Factors that increase the performance of harvest aid chemicals include:

- Warm, calm, sunny weather
- Soil moisture relatively low but sufficient to maintain cotton plant in active growth without moisture stress
- Soil N levels relatively low

- Leaves active and uniformly expanded on plants
 - Little of no secondary growth evident on plants
 - Plants with a high percentage of open bolls that have reached “cutout” and shed some mature leaves
- Factors that negatively affect harvest-aid chemicals include:

- Applications made under cool (below 60oF), cloudy
- Prolonged periods of wet weather following treatment
- Plants in vegetative growth state with low fruit set
- Plants severely moisture stressed with tough, leathery leaves at time of treatment
- High soil moisture and N levels which contribute to rank, dense foliage and delayed maturity
- Improper calibration of application rates and poor spray coverage

The peanut crop continues to mature with the expectation that some fields will be dug beginning in the next two weeks. Disease pressure has been on the decline but the following diseases continue to be seen in program fields: early leafspot *Cercospora arachidicola*, and *Pythium spp.*

What’s Happening in the Cotton

Cotton Aphid:

Populations remain below damaging levels at around 12 per leaf in a few of the program fields. Aphids at this time of year can cause sticky cotton which will get you a discount. Therefore, it is critical to protect the crop from high aphid populations. **Treatments should be initiated when the field averages 50 aphids per leaf and if the population is continuing to climb.**

Pink Bollworm:

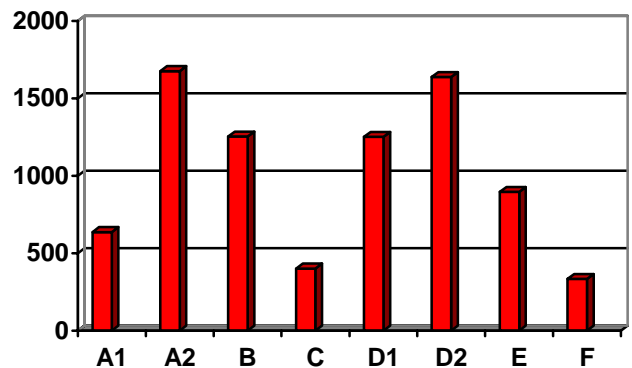
Numbers holding steady in the Gaines County Area. View High Plains County trap numbers in the FOCUS on Entomology newsletter written by Dr. Jim Leser at <http://lubbock.tamu.edu/>.

Numbers are from traps set on April 25 and have been run weekly since. Locations of the traps are as follows in each section of Gaines County.

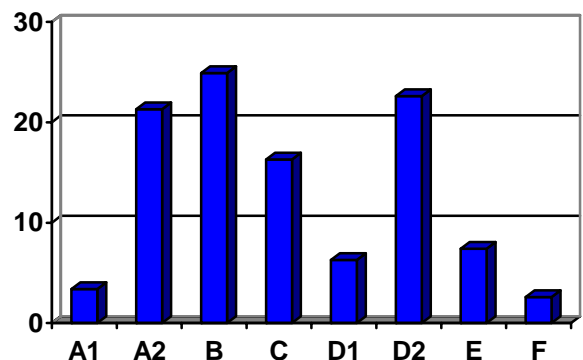
A: NW	B: N	C: NE
D: SW	E: S	F: SE

The graph below depicts the total number of pink bollworm moths caught in each trap to date in

Gaines County since trapping began.



The graph below depicts the number of pink bollworm moths caught per night in each trap for the week of September 5th.



With cotton fruiting PBW could become a problem across the county. Using a heat unit model we are able to predict when we should see initial emergence after overwintering, as well as when we will reach peak emergence and when we should see new generations. The heat unit model is based on temperature readings beginning on January 1st.

Pink Bollworm Development Based on Heat Unit Accumulation

<u>PBW</u>	<u>Avg. HU Accumulation</u>
Emergence	500
50% Emergence	1180
95% Emergence	1950
Complete Over Winter Emergence	2200
2 nd Generation (1 st infield)	1930
3 rd Generation (2 nd infield)	2680

4th Generation (3rd infield) 3430
Second (and subsequent) generations may be called “peak moth flights” referring to their captures in pheromone traps. Peak moth flights are usually seen over a 2-3 day period, with significantly higher numbers showing up in the traps at those times, they may even overwhelm the traps.

We reached 500 HU (emergence) in Gaines County on May 24th, 1180 (50% emergence) on June 29th, 1930 (2nd generation) on August 4th, 1950 (95% emergence) on August 6th, 2200 (Complete Over Winter Emergence) on August 19th, and have currently accumulated 2668 HU as of September 12th. **The economic threshold for PBW is 10-15% infested bolls. DO NOT CONTINUE TO USE TRAP NUMBERS TO MAKE MANAGEMENT DECISIONS.**

Cotton Bollworm:

Populations are low in program fields and will not be a problem for the remainder of the year. After a boll has gained 450 heat units it is relatively safe from worm damage. It is also very difficult for a worm population to become established in cotton that has only larger bolls present.

What We are Seeing in Peanut

Stay on a fungicide schedule in accordance with the label regarding HARVEST restrictions until the crop is finished this year. However, if your crop is thoroughly infected with disease, no amount of fungicides will help. So, please remember that fungicides are preventative and not curative in their mode of action.

*For more information on this disease and others please call my office or go online at:
<http://stephenville.tamu.edu/~clee/pdnctr/>

Insects:

No program fields are experiencing insect problems at this time, but I have heard reports of spider mite infestations across the county. A good irrigation or heavy rain can reduce mite populations, however eggs usually go unaffected and at least some mites are sheltered by upper canopy leaves. Chemical control should be considered only when lower canopy defoliation is taking place or appreciable populations are present.

Comite (2pts/acre), Danitol (10.66-16 oz/acre), and Omite (3-4 lbs/acre) are labeled for use in peanut all with a 14 day pre-harvest interval.

Wheat Variety Update

Irrigated Wheat Grain Yields: Two-Year Results, Gaines Co. Calvin Trostle, Extension Agronomy, Lubbock, (806) 746-6101, ctrostle@ag.tamu.edu

Irrigated grain trials for wheat have been conducted in 2004 and 2005. In both cases the trials were planted after summer crops were harvested. Several producers in Gaines Co. have dropped one year of cotton from the 3-year rotation with peanuts and added wheat instead. This helps reduce the number of acres that need to be irrigated during the summer. But as one producer in Gaines has noted, “It is not enough to break even on the wheat, and just reduce summer irrigation and improve our rotation. I need to make some money on the wheat crop.”

Trials were located near Seagraves in 2004 (drilled 11/13; average yield, 37.2 bu/A; average test weight 50 lbs./bu) and west of Seminole in 2005 (drilled 12/13; average yield, 50.7 bu/A; average test weight 58 lbs./bu). They were replicated and harvested with a small combine.

Wheat varieties that performed well (51-54 bu/A) in the two-year period included:

Dumas TAM 111 Jagalene Jagger

These yield results are consistent with other Texas A&M trials in the northern South Plains and Panhandle. Dumas, Jagalene, and TAM 111 are currently suggested ‘top picks’ for any level of irrigation in the Texas High Plains. All three of these varieties are medium maturity but have a mixed bag of susceptibility or resistance to leaf rust and stripe rust.

Jagger has been a ‘top pick’ in the past but due to its earliness and susceptibility to late freeze injury has some risk and is generally being replaced.

Also, Cutter performed well (48 bu/A), and is a medium-tall variety somewhat susceptible to leaf rust but resistant to strip rust. It is a good choice for dryland wheat production as is TAM 111.

Varieties that did not do well in the trial over the 2-year period included the beardless wheats, most TAM lines, and NK 812. We typically see a yield drag in most years with beardless wheat vs. modern grain varieties, and we do not recommend them if you are fairly sure you are going to grain rather than grazing out. TAM 110 remains a recommended wheat in general for dryland and limited irrigation, and it is greenbug resistant. This early maturity wheat, however, is showing signs of becoming highly susceptible to leaf rust. Old TAM standbys 200 and 202 are not widely available anymore. 200 performed poorly in this trial though TAM 202 was 2 bushels above average.

Good seed quality is a key for Gaines Co. wheat production as many of the acres are planted late in cooler conditions after cotton or peanuts harvest.

For further information on the Gaines Co. wheat trials, contact the Gaines Co. Extension office or Calvin Trostle for the full report. We would like to thank Delmon Ellison and Jud Chevront for providing field sites, and we look forward to repeating this work in Gaines Co. with a 2005 fall seeding.

Fun Facts

The patent for peanut butter was awarded to Dr. John Harvey Kellogg in 1895. Source: NPB

Acknowledgements

Funding for the IPM program is provided by donations from local agribusinesses. Money goes towards postage, travel, and wages for scouts. We are still in need of funding so if you know someone you think would be interested in donating please contact them or call our office. The IPM staff would like to thank these businesses that donated to the program and encourage producers to support their business as they have supported the producers.

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Farmers Ins.
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First United Bank
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McKinzie Insurance
Moore-Haralson Agency
Nolen Ag
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