

The Integrated Pest Management (IPM) Newsletter for Row Crops in the Lower Rio Grande Valley

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General Situation

The dry hot weather last week was a blessing for several growers who were hoping for an opportunity to finish harvesting their sorghum. Everyone was hoping that this hot dry weather would last another month and half, or a least long enough to complete sorghum harvesting and start and finish cotton harvesting. However, last nights showers brought an end to the dry weather and the weather forecast is predicting scattered showers throughout this week.

On the bright side of things, the last couple of rain storms have helped to finish up the cotton crop. Several fields have large bolls in the top portion of the plants. We have a great opportunity to bring in a good crop in the dryland and irrigated fields as long as the weather and insects cooperate.

This years cotton crop is about 2 to 3 weeks behind the usual schedule, mainly due to weather related issues and insect pressure at the start of the cotton season. Rotten bolls have been found in fields that had open bolls during the last rain event. Currently, percent cracked boll ranges from 0 to 36% in the IPM Program scouting fields.

Announcement

Bayer CropScience Cotton Field Day
Thursday July 19
Starting at 9am at Ross Gin
CEU, CCA and Lunch Provided

Cotton Insect Situation

We have received reports of a slight increase in the number of boll weevil punctures and live weevils being found in scattered fields throughout the Lower Rio Grande Valley (LRGV).

“**Worms**” and **Whiteflies** continue to be a major concern in fields across the LRGV. Bollworm and tobacco budworm populations range from 0 to 7.5 larvae per 100 plants in work units 1703 (East Edinburg), 1704 (Mission/Sharyland), 1706 (Port Mansfield), 1707 (East Raymondville), 1708 (Sebastian), 1709 (Los Coyotes), and 1711 (Combes). High populations (20 to 35 larvae per 100 plants) were observed in work units 1705 (West Raymondville), 1710 (East Lyford), 1712 (Santa Rosa), and 1716 (Brownsville). Bollworm and Tobacco budworm moth trap catches have decreased since last week (please see attached table “Cotton Moth Trapping”).

Whifeflies can be found in a majority of the fields, but the highest populations are found in the western half of the valley in work units

1703 (East Edinburg), 1704 (Mission/Sharyland), 1705 (West Raymondville), 1712 (Sant Rosa), and 1713 (Progreso).

Since we very close to defoliation, one might consider using an insecticide that has a short term control (7 to 14 days) such as Venom and Centric which are effective against all stages or a Pyrethroid Combination that is primarily an adulticide.

Defoliation

Growers will likely start defoliating at the end of this month. Once bolls start to open new growth may occur if moisture is adequate. If cotton plants are actively growing at harvest time, defoliation will be difficult and subsequent regrowth is likely to occur. Regrowth can be inhibited by delaying defoliation with harvest aid chemicals until 60 to 70 percent of the bolls are open.

Nodes Above Cracked Boll (NACB) can be used to assess crop maturity and time harvest aid applications. A cracked boll is when white lint is visible, but is not fluffed to be efficiently harvested with a spindle picker. When using this technique a producer must count nodes above the uppermost cracked boll and not bolls above cracked bolls to determine the age of bolls above the cracked boll. A cracked boll is used as a reference point because it denotes the uppermost boll that has attained 100 percent of its yield and quality potential. In addition to weight loss, micronaire is strongly affected by early defoliation. The earlier the defoliation, the lower the micronaire. Harvest aids should be sprayed when there are no more than three to four nodes with harvestable bolls above the uppermost cracked boll.

Nodes above cracked bolls	% Wt. Loss
3	1.3
4	7.9
5	14.6
6	21.3
7	28.0
8	34.7

Defoliant can be broken down into different categories depending upon their modes of action. Some products are considered “enhancers” or “synergists.” Accelerate or Quick Pick, for example, are used to speed up the action of other harvest aides. Products that include sodium chlorate, DEF, Folex and Cyclone at low rate injure the leaf and stimulate the abscission process. Hormone defoliant such as Dropp, Ginstar, and Harvade defoliate plants and reduce regrowth but do not affect bolls directly. Ethepon products such as Prep at higher rates will cause some defoliation but work best in combination with true defoliant. Ethepon causes increased ethylene production and speeds up boll opening.

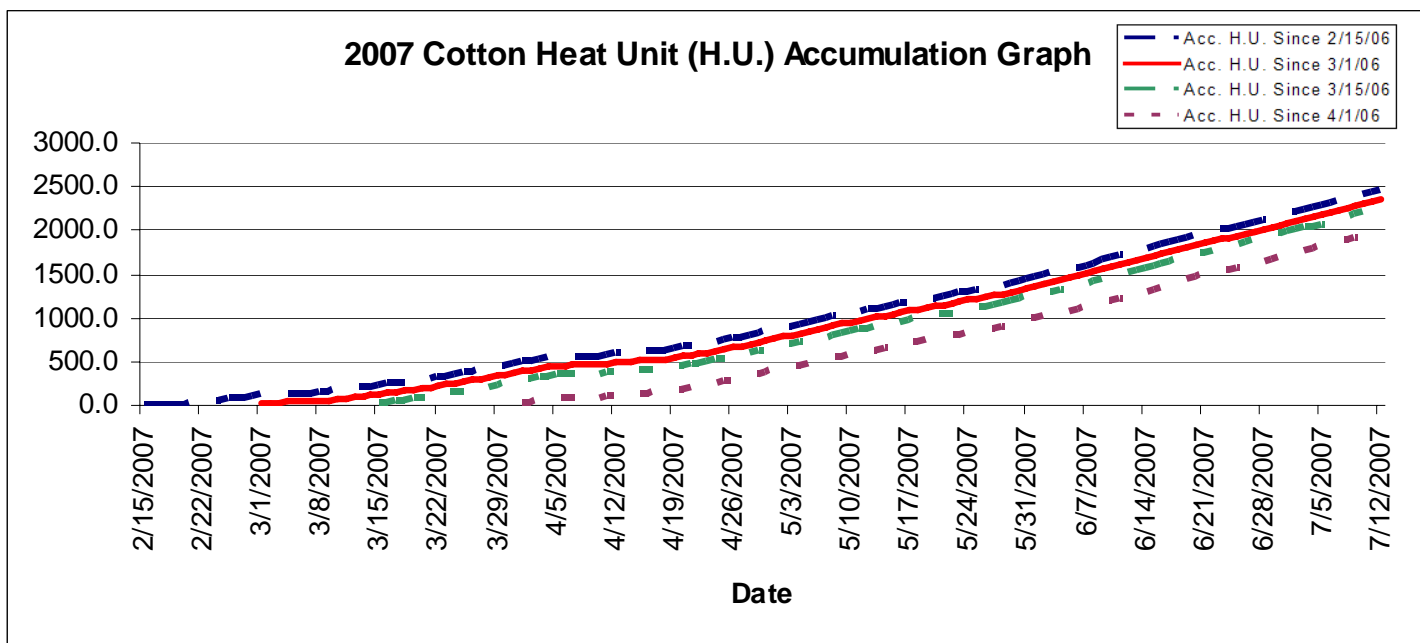
Desiccants, such as paraquat, kill plant tissue and cause a rapid loss of water from the foliage. They prepare the crop for stripper harvest. Plants are usually killed so rapidly that defoliation cannot take place, hence the leaves frequently remain attached. In high-yielding cotton, defoliant are usually used to remove leaves and then a desiccant is applied to speed up the drying of stems and remaining leaves.

This information was obtained from Texas Cooperative Extension publication “The Proper Use of Cotton Harvest-Aide Chemicals.”

Special Thanks to the 2007 IPM Program Sponsors

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SUMMARY

Cotton Moth Trapping in the LRGV, 2007

Location	Species	Average number per trap per day													
		4/30	5/7	5/14	5/21	6/4	6/11	6/14	6/20	6/27	7/3	7/7	7/10	7/13	
North of Weslaco	Bollworm	1	0.6	3.1	1.7	2.9	fallen	0.5	0.8	4.1	1.0	2.3	2.5	0.0	
	Tobacco Bud worm	0.4	0.1	0.1	0.3	0.4	0.7	2.5	5	4.6	2.7	21.3	3.8	0.3	
	Beet armyworm	2.1	2.1	0.7	0.1	0.2	0.1	0	0.2	2.1	2.2	4.3	1.8	2.3	
North of Combes	Bollworm	-	-	-	-	2	8	1	0.9	0.8	0.7	3.4	0.7	2.2	
	Tobacco Bud worm	-	-	-	-	-	-	12	1	7.7	3.0	76.0	11.3	2.7	
North of SugarMill	Bollworm	-	-	-	-	7.5	7.1	5.5	1.7	6.1	1.0	6.7	0.9	0.7	
	Tobacco Bud worm	-	-	-	-	-	-	57.6	0.2	10.3	1.2	79.0	13.5	2	