



**“Rio Blanco” Integrated Pest Management Update**

Vital Crop Production Information for **Crosby** and **Floyd** Counties

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Volume 7 - No. 15

July 20, 2007

☛ Cotton is progressing well but needing another rain (irrigation) to transition to bloom without stressing. This may sound inappropriate at this time, but, with the limited root development following the wet spring, area cotton is going to suffer if the hot temperature and low humidity climate continues, especially if temperatures reach into the 100's. Dr. Randy Boman reminds us of crop year 2000 when several thousand acres of dryland cotton dried up in July and August after a similar spring period. With most irrigated cotton receiving a “shot” of fertility through the system, these plants are receiving this needed moisture. Planting date opportunities and subsequent avoidance of harsh weather events this year are key in cotton’s survival.

☛ Heat unit accumulations (HU) as of **July 17, 2007**, and previous year’s (comparison time frame) were:

Avg. of Last 5 yrs.	Jan 1 /06 to Date	Jan. 1/07 to Date	May 1/06 to Date	May 1/07 to Date
1339	1526	951	1272	904

A total of 750 to 1,000 heat units (depending upon which paper you read) are necessary to reach the bloom stage. About 10% of Program cotton is blooming at this time or will be by the end of the week.

☛ An important consideration at this stage of development is the application of Plant Growth Regulators (PGR’s). At pre-bloom or early bloom, one can tell if this management tool is necessary by examining the internode length between the fourth and fifth nodes below the terminal in several places in the field.

1) If the average internode length (IL) is less than 1.4 inches, plant growth is proceeding

below optimum and no PGR is required;  
 2) If the average length is between 1.4 and 1.8 inches, treatment is optional. Should conditions be dry and fertility levels are normal, it may be prudent to wait another 5 to 7 days to re-measure IL’s.

3) If IL’s average 1.6 to 1.8 inches and rainfall has occurred or irrigation is planned, PGR’s should be considered strongly. This is especially true for heavily fertilized soils (or those following corn) when temperatures are high and heat units are plentiful.

4) If IL’s are above 1.8 inches, cotton is developing at a high rate, and PGR’s should be applied. Rates and timing selection is more of an art than a science and growers should make selections on sound research data. (This information is condensed and borrowed from S.D. Livingston, C.R. Stichler, and J.A. Landivar.)

Attached to this newsletter is an excerpt from a writing by Dr. Randy Boman in 2006, explaining modes of action and effects of PGR’s.

Nodes above white flower (NAWF) are another indication of developmental progress. At bloom, if there are 8 to 10 NAWF and conditions exist as in #3 above, a PGR is definitely recommended. Five to seven NAWF are an indication that cotton is progressing normally, and anything less than 5 would indicate less than optimum development.

☛ **J.D. Ragland, Floyd County**, has two turn row meetings scheduled for the Lockney COOP Gin (7:30 a.m.), and Scott Gin (7:30 a.m.), Floydada, for the 25<sup>th</sup> and 26<sup>th</sup> of July, respectively - more details from Donna at the Floyd County Office, (806) 983-4912 - the latest flyer from J.D. is attached. This has changed since the last newsletter, so you might want to check with Donna.

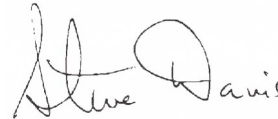
☛ Several fields in our area now contain

bollworm eggs and small worms. Most are not progressing past the first instar as spiders and other predators are numerous. Bollworm moth counts are up this week in traps - not a precursor to egg lay in the field, but an indication of the population building. Conversely, Beet Armyworm moth numbers from traps have remained low throughout the season. This is an indication of wild host availability (careless weeds, primarily) in playa lakes.

• Aphids are on the increase and colonies are expanding past terminal areas to bottom leaf surfaces. Predator insects are continuing to keep them in check and only light honey dew deposits are noticeable in most program fields. There is still ample time to clean these colonies up if they don't crash on their own.

• **Pumpkin producers** need to continue monitoring for squash bugs. Although they are not in numbers to pose a major threat at this time, they are still capable of transmitting cucurbit yellow vine decline. With some fields experiencing stand reduction this year in the wake of harsh weather, very little can afford to be lost in the way of plant population. No signs of powdery mildew in Program pumpkins this year as at least two preventative fungicide applications have been applied in most fields.

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