

AgriLIFE EXTENSION

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Gaines County IPM Newsletter

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General Situation

Parts of the county received rainfall over the past week, however, these showers have been very spotty and parts of the county have received little to no rainfall. Two situations are being created out in the cotton fields. First are those fields that have receive above average rainfall over the last month. I am starting to see regrowth in those fields that had previously reached cutout. These fields will likely be harder to defoliate. Second are those fields that have received little to no rainfall. These fields are showing signs of excessive stress and I would caution growers on cutting off the irrigation water to quickly. The lack of subsoil moisture may require us to carry out irrigation a little longer than usual in order to prevent any yield reduction. The same scenario can be used on those peanut fields which have not received any rainfall.

A majority of our cotton crop has long past cutout (5 NAWF) and the plants have shed their remaining squares and small bolls. This natural shedding process helps the plants to adjust their fruit load, which allows the plants to shift all of its efforts into maturing the retained fruit and producing harvestable bolls.

Heat Unit (H.U.) Accumulation since July 23 & 30, and August 6, 13, & 20

Date Cutout	H.U. Accumulation
July 23	723
July 30	571
August 6	394
August 13	226
August 20	88

Those fields that cutout on or prior to August 6 should be safe from most insect pests.

Peanut pod rot is the major concern in most peanut fields. This wet weather is more conducive for pod rot development. Since, harvest is on the horizon, producers need to pay special attention to pre-harvest intervals. Fungicides can vary greatly in the number of days required between an application and harvesting. Please refer to product labels for specific pre-harvest intervals.

Verticillium wilt is starting to show up in a few peanut fields. We are also continuing to see a significant impact of salinity in a couple of peanut fields.

Kurtomathrips morrilli



Adult and immature Kurtomathrips Photo courtesy of Dr. David Kerns



Cotton leaf infested with Kurtomathrips

Kurtomathrips morrilli were first found in Gaines County infesting cotton on July 17, 2011. We were all hoping that this pest would not show up in 2012, since we did not have the extreme weather conditions that prevailed in 2011. However, during this past week we have confirmed Kurtomathrips in three fields in Gaines County and they have been reported in other counties north of Gaines County.

Below is an excerpt the following publication: Kerns, D.L. and M.G. Anderson. Occurrence, Impact, and Management of Kurtomathrips morrilli: A New Pest of Cotton on the Texas High Plains. Journal of Cotton Science. InPress 2012.

Decision making:

Kurtomathrips morrilli is an unusual pest of cotton that appears to occur under hot, dry conditions affecting primarily water-deficit stressed cotton. Although this is the first report of this pest damaging cotton in Texas, it is highly probable that this is an endemic species that has simply remained undetected. It is likely that dryland cotton grown in the south plains region of Texas has been affected by this pest in the past, but has gone unnoticed because most dryland cotton is not regularly scouted and since this pest impacts primarily water-deficit plants. Therefore, damage, defoliation and death may be mistakenly attributed solely to the lack of water. Additionally, most dryland cotton suffering severe water-deficit conditions probably does not have the yield potential to economically justify protecting from K. morrilli. However, under conditions similar to those experienced in 2011, irrigated cotton grown under water-deficit conditions may be worth protecting. When making the decision to treat or not to treat consider the following:

What stage of growth is the cotton?

- 1. **Check boll maturity.** If the bolls are mature (cutting the boll open and seeds have well defined cotyledons and seed coat versus those which are watery seeds) they may not be significantly damaged by the defoliation. If there are numerous bolls to mature, treatment may be justified. Make sure these immature bolls have the potential to yield enough to cover insecticide and the application expenses.
- 2. **Choose the right insecticide.** *K. morrilli* do not appear difficult to control with a number of insecticides including acephate, acetamaprid, imidacloprid and thiamethoxam. The most commonly used insecticides in the 2011 *K. morrilli* outbreak were imidacloprid and acephate. These were the insecticides of choice primarily because they were inexpensive, yet effective.
- 3. **Consider cost saving methods.** Consider multi target applications to save costs. If *K. morrilli* is present and an over the top

herbicide application is scheduled, the addition of a relatively inexpensive, yet effective insecticide may save an application trip through the field solely targeting thrips. Spray field edges where *K. morrilli* is abundant and does not appear to be spreading into the field.

4. **What is the weather forecast?** *K. morrilli* appears adversely sensitive to cool temperatures and precipitation. If these conditions are predicted in the immediate future and you have field edges infested, then an insecticide application may not be necessary.

Late-Season Weed Management - West Texas

By Peter Dotray And Wayne Keeling in the August 23, 2012 edition of FOCUS on South Plains Agriculture

Many fields have received timely herbicide applications this season. Some of these fields are still clean and a few are in need of a layby treatment to control the last "new" flush of small weeds.

Even in fields where poor weed control has been observed, it is important to continue to try to control weeds for harvest efficiency and reduce weed seed production that will affect future cotton crops. Growers should not ignore weeds that have escaped previous control measure and the financial investment made today will pay off in the 2013 crop and beyond. In 2011, several fields were investigated where Palmer amaranth was not controlled following several applications of glyphosate. from these tests indicated that glyphosateresistant Palmer amaranth where present in several of these fields. In 2012, numerous fields in a least five counties have been reported withstanding multiple glyphosate applications, suggesting that that some level of resistance is likely present. Suspect fields are much more widespread than what was observed in 2011. One common theme in several of these fields was lack of any residual herbicide in a glyphosate-based weed management program. Growers with weeds, whether they are herbicide resistant or not, should remove escaped plants because each female plant has the capability of producing over a half-million seed. A successful long-term strategy for effective control of Palmer amaranth should center on a "zero tolerance" approach. In this approach, the goal late-season is to remove escaped weeds from the field to reduce additional seed tion.

development for 2013. Additionally, large weeds growing through the cotton canopy have already reduced yield potential and will cause problems at harvest if not removed. Producers are encouraged to look at their fields and surrounding areas and destroy all plants that are suspicious for herbicide resistance by any effective means available. which could include hand hoeing, cultivation, spot-spraying, or using hooded sprayer applications with effective burndown herbicides. This will limit the production of additional resistant seed and help prevent the problem from becoming more widespread next year. In small cotton, there may still be the possibility of cultivation or broadcast or hooded applications, but in larger cotton with lapped middles, spot spraying or hand removal might be the best op-

Be aware that weed seeds can travel with equipment from one area of the field to another and from field to field. If you have fields where you suspect resistant weeds may be present, do not transport equipment from a weedy field to a clean field without carefully cleaning the equipment. have a custom harvester moving into one of your fields, make sure it has been cleaned When considering fields at the same first. crop maturity, the harvesting order should be from cleaner fields to weedier fields. Transport of hay could serve as a means of resistant weed seed dissemination. Effective lateseason weed control in 2012 will assist in effective weed management for the future. This is also an excellent time to start planning on how to best utilize a soil residual herbicide in your 2013 weed management program. Effective weed management starts with a dinitroaniline herbicide. The use of soil residual herbicides at-planting will help to control difficult-to-control weeds that escape PPI herbicides and are a challenge for postemergence herbicides. There are several herbicides that may be applied with glyphosate in tank-mix at the first over-the top timing and several other soil residual herbicides are available for use at layby. Consider overlapping residual herbicides for effective resistance management in 2013.

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