



# <u>Issues in Agriculture</u>

The Newsletter about Integrated Pest Management for the El Paso Valley

Volume:	38
Issue:	4
Date:	July 26, 2013

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## Announcements

- Cotton Workshop at Fort Hancock Municipal Building, on August 8, starting at 9:00 AM. Speakers: Drs. Jaime Iglesias, Girisha Ganjegunte, and Salvador Vitanza. Topics: Update on cotton root rot, other plant diseases, and insect pests; cotton varieties; soil salinity; soil/water PH interactions and amendments to improve PH. Cost: \$10 per participant. A total of 3 CEUs will be provided. More information: Cathy Klein. Phone: 915-369-2291. Email: <u>cmklein@ag.tamu.edu</u>
- NMSU Ag Field Day. August 14. This event is open to the public. Registration begins at 8:00 A.M. The day will include field tours and presentations. Address: 1036 Miller Rd, Los Lunas, NM 87031. Contact Information: Phone: 505-865-7340. Email: mplace@nmsu.edu
- The **2nd Annual Texas Fruit Conference** on September 30, and October 1<sup>st</sup> in Bryan, Texas. This is an educational program designed to meet the needs of novice and experienced orchardists in Texas. While this conference is intended to assist commercial fruit producers, the materials presented will also be helpful to homeowners and gardeners who simply want to grow fruits and nuts for home consumption and pleasure. The **Texas High Tunnel Conference** is a day-long program following the Texas Fruit Conference on Wednesday, October 2<sup>nd</sup>, covering the special topic of growing strawberries and other fruit/vegetable crops in low-cost, frost protection shelters. The High Tunnel Conference will also be held at the Best Western in Bryan, Texas. Both events to be held at the Best Western Old Town Center Hotel, Bryan, Texas. Online registration at <u>https://agriliferegister.tamu.edu</u> On-site/In-person registration set at \$90 for Texas Fruit Conference (\$80 online) and \$55 for High Tunnel Conference. Special combo online registration for both events (2.5 days): \$125.00. Contact: Monte L. Nesbitt, M.S. Phone: (979) 862.1218 office. Email: <u>mlnesbitt@tamu.edu</u>

### **GENERAL SITUATION:**

The latest rainy weather has been a great relief to supplement soil moisture. I have not heard of recent hail damage yet. It was strange to experience almost a week of maximum daily temperatures below 90°F and even below 80°F in the middle of July, while the majority of the country was baking in record high temperatures!

### **COTTON:**

Most precipitation this year (3.37 in) has fallen this month (2.32 in). These data come from the weather station at El Paso International Airport, but pluviometers located near cotton fields or pecan orchards recorded up to 1.5 inches of precipitation during the last couple of weeks. Recent rains have helped the crop significantly.

In general, the cotton crop in El Paso and Hudspeth Counties is in great shape with few row skips. The youngest cotton plants are at one-third grown square stage and most fields are setting first bloom. Remember that when cotton plants start blooming, the cotton fleahopper transitions from pest to beneficial insect because it feeds on caterpillar eggs.

As always, there are areas in the fields where cotton plants do not develop normally due to soil conditions. There are a few fields with weedy spots and very small areas with volunteer genetically-modified cotton growing between rows. Volunteer cotton plants started emerging following the first irrigation. This volunteer cotton will be managed soon by cultivation and applications of Aim EC herbicide.

I heard of initial incidence of southwestern cotton rust near Balmorhea, but I have not seen cotton rust in our area yet. We need to be monitoring the crop for this and other diseases.

Insecticide applications (Endigo, Leverage, Asana, and Cobalt) have been made to control Lygus bugs populations. Shortly, we will be evaluating the efficacy of selected insecticides for Lygus control in our area. Bollworm outbreaks in some Pima cotton fields have been treated with Asana insecticide. Plant diseases have not affected the crop yet.

**Heat Units:** Unfortunately, all the seven weather stations of the Texas ET Network of the Irrigation Technology Program located in El Paso County (<u>http://texaset.tamu.edu/elpaso.php</u>) appear to be offline. I understand that soon some of the stations will be repaired. According to data from the Cotton Heat Units website (<u>http://www.cottonheatunits.com/</u>) the following are the accumulated heat units (HU), up to July 25, corresponding to selected planting dates for El Paso compared to the historical average heat units.

Planting date: April 10	Accumulated HU 2,0	04 Average 1,711
Planting date: April 15	Accumulated HU 1,9	Average 1,688
Planting date: April 20	Accumulated HU 1,9	41 Average 1,661
Planting date: April 25	Accumulated HU 1,9	10 Average 1,630
Planting date: April 30	Accumulated HU 1,8	54 Average 1,591
Planting date: May 5	Accumulated HU 1,8	Average 1,552
Planting date: May 10	Accumulated HU 1,7	50 Average 1,501
Planting date: May 15	Accumulated HU 1,7	11 Average 1,444

The "Cotton Heat Units" is a user friendly website that makes it convenient to calculate heat units based on your exact planting date and average temperatures for El Paso. This site also provides forecasts for the likely heat units that may be accumulated in the next 7 days.

#### **PECAN:**

Most pecan growers did not apply insecticides for the control of pecan nut casebearer (PNC) in our area. There were only a few spots with high levels of PNC moths and egg lay. Currently, the population levels of yellow and black pecan aphids are low. Recent rains cleaned most orchards of aphid honeydew, which had accumulated on the leaves, and also lowered aphid numbers.



Mario Saul Gonzalez, with the Secretaría de Desarrollo Rural (Secretary of Rural Development) in Chihuahua, recently submitted insect specimens and plant damage samples to Dr. Jaime Iglesias and Dr. Carol Sutherland for identification and advice. Mr. Gonzalez and other Mexican government employees such as Juan Angel Guzman Machado and Juan de Dios Orozco were alarmed about a beetle that, in their own words, was killing healthy pecan trees near Balleza, Chihuahua (a town 1 hour west of Parral). They mentioned that the trees were dying in a period as short as 10 days after the initial attack. Dr. Sutherland determined that the beetles attacking pecan belonged to the family Bostrichidae in the order Coleoptera. Members of this family are

also called the twig and branch borers, auger beetles, false powderpost beetles, or horned powderpost beetles. The species attacking pecan trees is *Xylobiops basilaris*, the "**red shouldered shothole borer**." Dr. Sutherland stated that these beetles are about 4-5mm long, black with two reddish-brown spots at the bases of the wing covers and a head that is not visible from above. From the lateral view, the jaws point downward and the antennae end in a slightly enlarged club. Dr. Sutherland determined that the other beetle species in the sample included *Xylobiops* spp, either *X. texanus or X. sexmaculatus*. There were also insects collected from the forest surrounding the affected pecan trees which included 'bark beetles' in the genus *Ips* and even some beneficial beetles in the family Histeridae or hister beetles in the genus *Platysoma*. Finally, she concluded: "*the best recommendation for all of the wood borers is keeping trees* 



healthy to reduce the risk for infestation. Protective treatments of the trees with insecticides would be too expensive to maintain, if there were any such treatments appropriately labeled. For the bostrichids, the attractive parts of the tree are already near death, so there's really nothing to protect or save. Secondly, once the beetle has bored into the tree, there's no insecticide that will kill the pest or restore the tree to health." According to the publication "Forest Health Guide for Georgia" by Terry S. Price, 2008, the most common bostrichid in the eastern United

States is the redshouldered shothole borer. It prefers to breed in hickory, persimmon, pecan, and elm.

After viewing the first insect sample left with Dr. Iglesias, I concluded that it was *Euplatypus compositus* which common names include: Ambrosia beetle (this is a group of species), pinhole borer, pinhole bark borer, hardwood platypus, and hardwood pinhole borer. It is distributed throughout eastern

North America, which hosts include many broadleaved trees, including cherry. It prefers oak, hickory, maple, and beech. This pest attacks stressed hosts, freshly dead trees, and raw lumber and is established in parts of Texas.

Mr. Mario Gonzalez delivered to Dr. Iglesias an additional insect sample that contained 27 beetles of the same species, collected directly from damaged pecan trees. I was able to verify Dr. Sutherland's insect identification that the culprit is the redshouldered shothole borer. Dr. Iglesias counted a total of 830 holes in the pecan trunk sample! He is submitting samples to several entomologist for insect ID and advice.

#### SALTCEDAR LEAF BEETLE:



I surveyed the westward movement of the Subtropical tamarisk beetle on saltcedar plants, on July 22, in El Paso County. I found abundant larvae along the border south of Tornillo (31°24'07.90" N and 106°05'05.05" W). The two westernmost locations where I found a few adult beetles were 2 miles south of Fabens (along the border) and 1.5 miles east of Clint (near Alameda Avenue). I could not observe larval activity there.



Dr. Carol Sutherland is waiting for some beetle specimens from Eddy County, south of Carlsbad, where she was informed that 400-700 acres of saltcedar were browning. Dr. Sutherland thinks that those beetles must have come up the Pecos River through Red Bluff Reservoir. Dr. Mark Muegge reported saltcedar leaf beetles at Red Bluff reservoir last fall. Dr. Allen Knutson thinks that it is likely the beetles continued to move up river in search of green saltcedar.

Mr. Gerardo Tarin Torres, Department Head Manejo Integral de Contaminantes (Integrated Management of Contaminants), SEMARNAT in Chihuahua, Mexico found the saltcedar beetle at Instituto Campestre in Ciudad Juarez (3 miles west of Socorro, TX). The presence of this beetle was observed for the first time there on July 20.

In America, the saltcedar biocontrol program has been welcomed as a very positive development, but on the Mexican side of the border, the saltcedar leaf beetle has been seen with concern and sometimes alarm. I plan to continue educating the public about this program to avoid unnecessary fear and misconceptions.

The Texas AgriLife El Paso IPM Program is partially supported by the following organizations: Ag Market Resources El Paso Pest Management Association Texas Pest Management Association Valley Gin Company, Tornillo West Texas Pecan Association

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