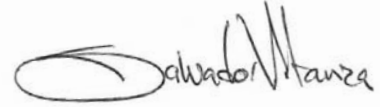


Issues in Agriculture

The Newsletter about Integrated Pest Management for the El Paso Valley

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Announcements

- **New IPM Intern:** Robert Neese, a recent graduate with a Master's in Agricultural Biology from NMSU is conducting an internship supporting the El Paso IPM Program. His main function is collecting data from a large field trial on pecan nut casebearer and aphids management. This test will be sampled intensively and frequently. In addition, Robert will support other efforts of the IPM Program. You might see him in your fields, this summer, scouting pest and beneficial arthropods.
- **Tri State Arkansas-Louisiana-Mississippi Pecan Trade Show and Convention.** June 14-15. Natchitoches Events Center in Natchitoches, LA. For further information, contact Stephen Norman 318-448-3139 or pecans@rosaliepecans.com.
- **Oklahoma Pecan Growers Association Annual Conference,** June 21-23. Norman, OK. For more information contact: OKpecan@trinex.net
- **Texas Pecan Growers Annual Conference and Trade Show.** July 15-18. Embassy Suites, San Marcos, TX. For more information contact TPGA at 979-846-3285 or pecans@tpga.org
- **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. Subjects: grape production, fruit production, growing pecans, weed control, peach tree pest management, riparian restoration, plants for pollinators, growing native plants and grasses. Address: 1036 Miller Rd, Los Lunas, NM 87031. Contact Information: Phone: 505-865-7340. Email: mplace@nmsu.edu
- **Vesicular stomatitis found in two New Mexico horses:** On May 4, 2012, Rusty Cawley announced that federal agriculture officials confirmed the detection of vesicular stomatitis virus in two horses in Otero County, NM. He said that in response to this situation, the Texas AgriLife Extension Service and the Texas Veterinary Medical Diagnostic Laboratory are offering advice and guidelines to owners and veterinarians. Mr. Cawley reported that vesicular stomatitis is a viral disease that primarily affects cattle, horses and swine, but may also affect sheep, goats, llamas, and alpacas. This virus may be transmitted by gnats and flies, contaminated equipment or facilities, or through the movement of animals. The virus appears to spread from animal to animal by exposure to saliva or to fluid from ruptured lesions. Humans may also contract the virus by handling affected animals. If vesicular stomatitis is suspected, report it to the Texas Animal Health Commission at 1-800-550-8242 or contact Dr. Dennis H. Sigler at the Texas AgriLife Extension Service. Phone: 979-845-1562. Email: dsigler@tamu.edu Additional information about detecting and preventing vesicular stomatitis is available from APHIS Veterinary Services at <http://tinyurl.com/7qrqhep>
- Due to **rising postage costs** of mailing this newsletter, I would appreciate it if you provide us with your email address to receive the IPM newsletter in electronic form only. Advantages of receiving the newsletter by email include much faster delivery, clearer print, color images, clickable internet links or email addresses, forward it easily, and you can adjust the font size to your preference. If you would rather have a hard copy, you can always print it at home. Contact Mrs. Claire Hill at 915-860-2515.

GENERAL SITUATION:

Hot weather is the rule now. Since May 17, maximum daily temperatures in El Paso have been well above the 90°F mark with four days reaching 100°F. The National Climatic Data Center (NCDC) shows that El Paso has received an accumulated total precipitation of 1.38" during the first five months of this year. For comparison, the average accumulated precipitation from January to May since the year 1879 to 2008 (a span of 129 years) is 2.02".

June beetle adults are abundant at the moment. They started appearing approximately two weeks ago. These beetles are attracted to lights at night. The most commonly found species in El Paso right now is

June Beetle by Mike Quinn,
University of Texas at Austin

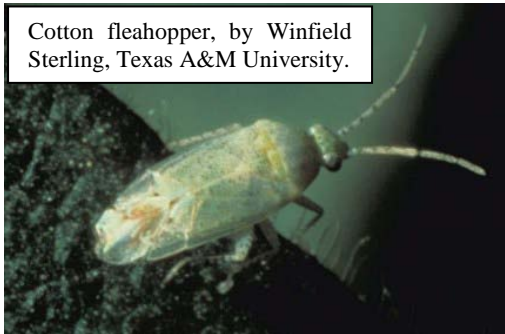


Phyllophaga crinita; which is considered the most important turfgrass pest in Texas. This species attacks warm season grasses like Bermuda grass, Zoysia grass, St. Augustine grass, and Buffalo grass. Most lawn damage occurs during summer and fall months. Lawns should be sampled 4-5 weeks from now, that is, starting around July 5. If you find 5 or more white grub larvae per square foot, you should apply a labeled pesticide to minimize damage to your lawn.

COTTON:

Most cotton fields are at the 8-9 true leaf stage. I have seen some fields with large “skips” in stand and plants with symptoms of wind or thrips damage, but in general, the cotton crop looks very well.

Soon, cotton plants will begin squaring and become susceptible to cotton fleahopper and Lygus feeding. Cotton fleahoppers feed on pinhead or smaller squares in the terminal. Lygus bugs feed on squares and small bolls. Both cotton fleahoppers and Lygus feeding cause shedding of the squares. The recommended threshold for **cotton fleahoppers** is 25 to 30 fleahoppers/100 plants with the caveat that



Cotton fleahopper, by Winfield Sterling, Texas A&M University.

during the first week of squaring the square retention should be lower than 90% before triggering control. During the second week of squaring the square retention should be less than 85%. In the third week, you should control them when the square retention is less than 75%. After first bloom, cotton fleahoppers cease to be a concern and in fact they become a beneficial insect by preying on bollworm eggs. Horsemint is the preferred host of the cotton fleahopper during late spring and early summer in Texas. This plant species can be used as a trap crop to attract cotton fleahoppers and then treat them with an insecticide.

Spiders and ants are the most active predators of the cotton fleahopper. The accepted action level for **Lygus**, also known as tarnished plant bug, is 8 bugs/100 sweeps with unacceptable square retention during the first two weeks of squaring (similar to square retention levels recommended for cotton fleahopper). In the third week of squaring the threshold is raised to 15 bugs/100 sweeps and low square retention. Immature Lygus bugs are more damaging to cotton than adults. You should consider making an insecticide application if 4 or more immature Lygus bugs are found in 100 sweeps along with poor square retention.



Lygus, by Kurt Schaefer, Oklahoma State University.

Mr Ramon Tirres and I aimed to evaluate the following **cotton plant stand densities**: 74,674 plants/acre (high), 61,045 plants/acre (standard) and 45,477 plants/acre (low). However, recent sampling by Robert Neese found that the actual stand plant stand densities in our trial are as follow: 68,312 plants/acre (high), 59,739 plants/acre (standard) and 45,784 plants/acre (low). With this test we plan to find out if savings in seed cost could be gained by using less seed without reducing yields/quality. One plot in this trial has a large area where very few plants emerged, but the blocking arrangement of the three replicates will allow us to account for soil variations.

Robert Neese also sampled four randomly selected cotton fields in the Lower Valley and found the following **plants per acre**: 45,738; 61,420; 65,340; and 69,260. It is generally accepted that 2-4 plants/foot of row maximizes yields. This is equivalent to 26,136 - 52,272 plants/acre in fields planted at 40 inches between rows. We might save in seed costs by planting less seed without sacrificing yield.

The Boll Weevil Eradication Foundation reports 6,340.9 acres planted to cotton in El Paso County and 7,165 acres in Hudspeth County making a combined total of **13,505.9 acres** for both counties. This represents a reduction of 17,772.6 acres compared to last year, when these counties planted 31,278.5 acres. We all know that this marked reduction is due mostly to the limited availability of surface irrigation water this year. The Boll Weevil Eradication Foundation will provide us with the data on acreage per Bt. and non-Bt. varieties in our area later in the season.

PECAN:

Sampling efforts to monitor **pecan nut casebearer** (PNC) nut entry in pecan trials and other commercial pecan orchards have failed to find a single nut damaged by PNC. This is the case even in untreated pecan orchards. It seems that the moderate to low population levels of PNC moths in late April and early May did not result in significant nut damage. This is welcome news and emphasizes the need to



PNC larvae in pecan nutlet

scout for egg lay when 25-50% of first generation eggs are expected, according to accepted PNC prediction models (<http://pncforecast.tamu.edu>), and apply insecticides only when thresholds are reached. In spite of these promising findings, we cannot lower our guard. We should be on the lookout for the second PNC generation. Several local growers captured PNC moths as early as April 23. Entering this date in the PNC forecast website indicates that first nut entry should have occurred on May 14. Usually, the second generation of PNC moths starts appearing six weeks after first-generation larvae enter the nut. A good date to replace PNC lures in our traps should be sometime before June 25.

Pecan aphid levels in monitored orchards have been very low to the point that aphids have been difficult to find. We have not seen honeydew on the leaves, but this situation can change quickly, and frequent scouting is necessary. Population levels of beneficial arthropods have been very low also. We have observed a few spiders, lady beetles, and lacewings.

In the previous issue of this newsletter, I showed images of a small moth that was abundant in PNC traps and described it as “an undetermined small moth species”. I suspect that inexperienced scouts may have confused this moth with PNC moths due to the similar size between adults of the two species. Dr. Mark Muegge kindly identified it as the **mesquite bean moth**, *Ofatulena duodecemstriata*. He added: “I do not know much about them except that the larvae feed in the seed pods of mesquite and adults fly from April to September”. Little information about the biology of this moth has been published. It occurs in the American Southwest, Mexico, Central America, and South America. It has been reported attacking pods of palo verde (*Parkinsonia aculeata*), and mesquite, (*Prosopis spp.*). Distinguishing between these two insects species should be fairly easy because PNC moths possess a dark ridge of scales across the forewings. On the other hand, the mesquite bean has light and dark banding across its wings. Make sure that inexperienced scouts are not confusing the two.



WEED CONTROL NEWS:

On May 15 and immediately thereafter, several national or regional agricultural media outlets (SouthWest Farm Press, Delta Farm Press, Plant Management Network News, Ag Professional Magazine, etc.) published an interesting Texas A&M University Press Release titled: **AgriLife Extension Specialist: Weed Resistance Could Call for a More Diversified Herbicide Plan**. In it, Dr. Paul Baumann, Texas AgriLife Extension Service State Weed Specialist in Lubbock, advises farmers that “they need to use a multi-herbicide program and not just rely on one product to do the job”. He stated that “common water hemp in Central and Southeast Texas and Palmer amaranth pigweed in the High Plains have started showing signs of resistance to glyphosate herbicides”. His warning is especially important for cotton growers who plant Roundup-Ready cotton varieties and rely on glyphosate applications to control weeds. This article ends with the following quote from Dr. Baumann: “I know farmers don’t want to spend more money fighting a problem they don’t yet have, but my argument is, even if you don’t ever have the resistance problem, you are just ensuring that there is no competition to your crop from weeds from day one if you use a soil-active herbicide. Those first eight to ten weeks are the most critical in keeping weed-free fields to prevent competition and yield loss.” Use this URL to read the full article: <http://tinyurl.com/7v3x4xy>

Also on the subject of weed control, an interesting article with a taste of science fiction, published on June 6 in the Ag Professional Magazine, and titled: “**Herbicide alternative would zap weeds with lasers**” reports that scientists at Leibniz University in Germany are attempting to stunt or kill weeds by using lasers instead of herbicides. Their main stumbling blocks are developing sensors that will identify the weeds to aim their lasers at, as well as adjusting the intensity of the beams. They want to develop robots or drones to produce the laser beams. This technology might be better suited for greenhouses than for large fields. Read full article at <http://tinyurl.com/7fqpioq> or <http://www.gizmag.com/laser-weed-killer/22653/>

The Texas AgriLife El Paso IPM Program is partially supported by the following organizations:

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