Issues in Agriculture

The Newsletter about Integrated Pest Management for the El Paso Valley

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Announcements

- The **Cotton Scout School** will be held on June 24, 2010 at the Texas AgriLife Research Center (1380 A&M Circle, El Paso, TX 79927) from 9:00 AM to noon. Emphasis will be placed on pest identification, biology, action thresholds, and sampling techniques. This training will also include a discussion of agronomic practices and fertilization. Cotton scouts would benefit greatly from this training, but anybody who is interested in cotton production is welcome to attend. Pesticide applicators will receive three CEUs. Participation in this event is free. Speakers: Mark Muegge, Jaime Iglesias, and Salvador Vitanza.
- On June 25, at 8:30 AM, a **Worker Protection Safety (WPS) training session** will be conducted at Border Land Farms (410 Hancock, Fort Hancock, TX 79839). Testing will be provided immediately after training. This will be a great opportunity if you want to obtain a pesticide applicator license. Instructors: Mario Saavedra and Salvador Vitanza.
- **Turn row meeting on alfalfa and pepper in Dell City**, Hudspeth County, on July 14. Presenters: Calvin Trostle, Texas AgriLife Extension Agronomist, Salvador Vitanza, and Cathy Klein. For more information contact: Cathy Klein, (CMKlein@ag.tamu.edu) P.O. Box 278, Sierra Blanca, TX 79851. Phone: 915-369-2291.
- A **pesticide disposal day** is being organized by TDA and NMDA. It is tentatively scheduled for late September in Las Cruces, NM. This is an opportunity for growers, farmers, ranchers, and dealers to safely dispose of all unwanted, outdated, or canceled pesticides. This program is free, anonymous, and confidential. You can dispose of any type of pesticide, treated seed, or fertilizers mixed with pesticides. Items that will NOT be collected include: tires, batteries, paints, antifreeze, and fuel. This activity will be conducted if there is enough need for it. Contact Mario Saavedra to confirm participation (Mario.Saavedra@TexasAgriculture.gov), Texas Department of Agriculture, 10800 Socorro Road, El Paso, TX 79927. Phone: (915) 859-3942, Fax: (915) 860-0293.
- Reminder: **89th Annual Texas Pecan Growers Conference and Trade Show**. July 11-14, 2010. Embassy Suites, 1001 E. McCarty Lane, San Marcos, TX 78666. Contact information: Texas Pecan Growers Association, 4348 Carter Creek, Suite 101, Bryan, TX 77802. Phone: 979-846-3285; Fax: 979-846-1752. Email: pecans@tpgea.org. Website: www.tpga.org

PEST ALERT: Chilli Thrips, *Scirtothrips dorsalis,* is a new invasive species causing severe economic damage in floriculture and nursery crops and landscape plants. This pest has resulted in a significant challenge to ornamental production systems and threatens established IPM programs. It was first detected in the United States in 2005 on landscape roses in Florida. In November 2007, chilli thrips were identified on landscape roses in Houston. Chilli thrips have been detected on ornamental and vegetable plants in Northeast and South Texas. It has not been reported from El Paso or Hudspeth Counties yet. Chilli thrips is a polyphagous species that attacks more than 150 host plants including beans, corn, cotton, eggplant, grape, grasses, onion, peach, pepper, rose, soybean, and tomato. As this pest expands its geographical range additional plants are added to its host range (Chilli Thrips by Lance S. Osborne and Scott Ludwig). A task force by University of Florida, the Southern Plant Diagnostic Network, Texas AgriLife Extension, the IR-4 Project, Florida Dept. of Agriculture, APHIS, ARS, USDA-CSREES projects a potential U.S. crop yield loss, from Chilli Thrips, at between $3-5.98 billions. These estimates were calculated under the assumption of an overall crop yield loss of 5-10%. For more information on chilli thrips: http://chillithrips.tamu.edu/ (Texas AgriLife Extension) and http://mrec.ifas.ufl.edu/lso/thripslinks.htm (University of Florida).

GENERAL SITUATION:
Officially, today is the first day of summer (summer solstice), but in the Sun City it feels like we have been in summer for a while already, with seven days of temperatures above the 100°F mark. This is the longest day of the year and it will certainly feel like it if you have to work outside because 102°F is our expected high. Hot and dry conditions have prevailed for the past weeks.

PECAN:
It seems like first generation **pecan nut casebearer (PNC)** control was effective because very low levels of nut damage have been detected. This is the right time to be monitoring for moth emergence of second generation PNC. This second generation may appear as early as 48 days and as late as 64 days (depending on the weather) after the emergence of the first generation. Using May 5 as the date of first sustained moth capture for our area, you may start finding moths as soon as June 22 or as late as July 12. Once you start capturing moths, I would recommend you to use the AgriLife PNC forecast system website http://pncforecast.tamu.edu/ to predict when you should scout for egg lay and then decide whether or not insecticide applications are needed.
Aphids: the incidence of black aphids is low at the moment, but yellow aphids and black-margined aphids (both species classified as yellow aphids) are becoming increasingly abundant. I have detected an average of 6 yellow aphids per compound leaf, but you need to pay close attention to aphid population levels because they have short life cycles and a great reproductive potential; especially in hot, dry weather. The action threshold of 25 yellow aphids per compound leaf does not mean that you have to apply if one or more compound leaves reach or surpass that number. It means that you should consider making an insecticide application when the average number of aphids hits that mark. Even then, you should take into account the population level of beneficial insects such as ladybeetles, green lacewings, parasitoid wasps, syrphid fly larvae, etc. before any attempt to control aphids. If you have to treat against aphids, choose insecticides that are easier on beneficial insects to reduce the likelihood of future aphid outbreaks.

COTTON:
Fields sampled are in 11-13 true leaf stage and cotton plants in fields with adequate moisture look great. I have detected low levels of the cotton fleahopper but it still has the potential to blast squares. In a few days, plants will be blooming and that will be the best indicator that this insect is transitioning from pest to beneficial insect status. I am surprised at the high population levels of lady beetles and green lacewings. We should try to preserve these beneficial species by choosing less harsh pesticides and applying them as the last resource and only when pests have reached threshold.
Plant stand densities: I understand that cotton growers in our region used to plant at rates exceeding 100,000 plants/acre long ago, but these values have been falling down through time. I have taken plant counts in cotton fields throughout El Paso County and found a range between 30,056 and 63,278 plants/acre. In fields planted at 40 inches between rows, the average number of plants/foot of row was 3.6 making a total of 47,045 plants/acre. In fields planted at 38 inches between rows, the average number of plants/foot of row was 4 or an equivalent to 55,024 plants/acre. As early as 1934, A. R. Leding and L. R. Lytton compared various within-hill plant populations and hill spacings using the Acala variety in the Mesilla Valley, New Mexico. They concluded that 1 or 2 plants at 12-inch intervals produced the highest yields (2 plants being more desirable). In 1965 in Mississippi, R. F. Colwick found that 76,000 plants/acre produced lower yields than 45,000 plants/acre. Several cotton plant stand density studies have indicated that populations of 40,000 to 60,000 plants/acre produced the highest yields. Later in the year, I will be reporting on the yield and fiber quality results of a plant stand density trial being conducted at Mr. Tirres Farm near Clint.

Heat Units: A great website where you can calculate heat units based on your exact planting date and average temperatures for El Paso: http://www.cottonheatunits.com. This site even forecasts the heat units that may be accumulated for the next 7 days. Using this website data and May 1st as planting date, we have accumulated 951 heat units up to now. You can always access http://texaset.tamu.edu/ to obtain weather data and heat units from seven local weather stations.

Degree Days: DD-60s required for cotton development.

Event	**DD-60s from Planting**
Emergence (stand establishment)	45-130
Apperance of first square	440-530
Appearance of first flowers	780-900
Peak Blooming	1350-1500
First open boll	1650-1850
Defoliation	1900-2600