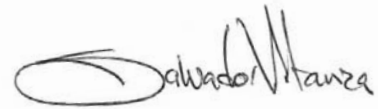


Issues in Agriculture

The Newsletter about Integrated Pest Management for the El Paso Valley

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ANNOUNCEMENTS

- You can download this and other IPM newsletters, check updates, and view upcoming events at the El Paso Texas A&M AgriLife Extension IPM website: <http://elp.tamu.edu/integrated-pest-management/>
- **New Pest Control Calculator:** Janet Hurley, AgriLife Extension Integrated Pest Management Program Specialist at Dallas, announced the new IPM website <http://ipmcalculator.com>; which offers school staff members, in charge of pest control, a wealth of practical information on managing rodents, birds, roaches, ants, and other pests.
- **NMSU Chile Field Day** will be held at the Los Lunas Agricultural Science Center (1036 Miller Rd., Los Lunas, NM) on Friday, August 22nd. Refreshments and registration begin at 8:30 AM, with the program scheduled from 9:00 AM through noon. The event is free of charge. More information: Dr Stephanie Walker at swalker@ad.nmsu.edu or (575) 646-4398.
- **Gardening Educational Programs:** El Paso Master Gardeners have the following events for the remainder of August: "Prepping Roses for Fall Blooms" (Aug. 16), "Earth-Kind® Practices" (Aug. 23), "Tool Maintenance for Fall and Winter" (Aug. 30). These events are part of the "Farmer's Market Series". They are free of charge and held at the upper patio of Ardivino's Desert Crossing (1 Ardivino Dr, Sunland Park, NM 88063) between 7:30 AM and noon. For more information on these and other events visit: <http://txmq.org/elpaso/events/>.
- **Chikungunya:** DSHS has confirmed 11 Texas cases (Bexar, Collin, Dallas, Gonzales, Harris, Montgomery, Travis, and Williamson counties). This is a virus transmitted by *Aedes* mosquitoes that can cause fever and severe joint pain. All cases have been imported. There is potential for chikungunya to spread in Texas because *Aedes* is present in the state.
- Dr. Bill Thompson, AgriLife Assistant Professor and Extension Economist, announced that the **Cotton Transition Assistance Program** (CTAP) is the "partial direct payment" that will be paid to producers this year since the STAX program from the 2014 Farm Bill will not be implemented until 2015. Sign-up for that payment began August 11 and runs until October 7. Registration is not automatic for producers and they should sign up for it before the deadline.

GENERAL SITUATION:

Recent rains have increased weed pressure in crop fields and gardens. As a consequence of rains, mosquitoes are now more abundant. You should avoid exposure to mosquitoes especially during dawn and dusk, wear thick clothing, and make use of insect repellents. Mosquitoes are active throughout the day in pecan orchards.

In the previous installment of this IPM newsletter I stated: “*Other Texas regions have reported high population levels of **fall armyworm (FAW)**, but they are sparse in El Paso. I do not expect this situation to change in the near future.*” Well, a couple of days after I made this statement, I started capturing increasing numbers of FAW moths in my pheromone traps. Other regions in Texas had seen FAW moths much earlier in the season. For instance, Dr. Pat Porter, AgriLife Extension Entomologist at Lubbock, reported trapping an exceptional number of moths in mid June. Field crops that are frequently injured include: alfalfa, cotton, barley, Bermuda grass, clover, corn, sweet corn, sorghum, sudangrass, and wheat. Other crops injured occasionally are apple, grape, peach, and many flowers. Weeds known to serve as hosts include crabgrass, Johnson grass, morning glory, nutsedge, and pigweed. The plant hosts listed here are but a fraction of the wide range of plant species affected by FAW. For information on identification, biology, and managemt: http://entnemdept.ufl.edu/creatures/field/fall_armyworm.htm

COTTON:

Dr. Mark Muegge and I would like to establish an **insecticide efficacy test for Lygus bugs**. Although Lygus bugs are relatively abundant at the moment, insecticide applications against Lygus are no longer needed. You should not monitor for Lygus bugs after cutout or 5 nodes above white flower (NAWF) because most bolls stop being susceptible to this pest. Please contact me if one of your fields has enough Lygus pressure and you are interested in helping us conduct this test. We do not need a large field to establish this trial.



Bollworm larva

Recently, **bollworms** have been observed damaging cotton bolls in large numbers even in some varieties protected with *Bt* technology. This coming week, several cotton growers plan to treat bollworms using Baythroid® XL with cyfluthrin as active ingredient (manufactured by Bayer CropScience) and Asana® XL with esfenvalerate as active ingredient (manufactured by Dupont). The first applications of insecticides for bollworm control in our region occurred approximately a month ago.

Some people have had difficulties differentiating bollworms from other caterpillars attacking cotton. Bollworm larvae, also known as corn earworms or tomato fruitworms, can be identified by the presence of microspines (or spinules) on the caterpillar “skin” or exoskeleton. These microspines circle the base of the “hairs” or setae and can be seen with the aid of a 10X hand lens. Recently hatched larvae are more difficult to identify than half or fully-grown larvae. Remember that; just like in the case of weeds, it is easier to reduce their levels by applying a pesticide against early stages.

There is a field immediately east of Clint where whiteflies are usually very abundant. Generally, whiteflies reach high population densities there by early to mid September, but this season it seems that whiteflies increased their numbers a few weeks earlier. Aerial insecticide applications against whiteflies in that area were conducted this morning. The active ingredient used was sulfoxaflor, commercially available as Transform® WG insecticide (manufactured by Dow AgroSciences).

PECAN:

The third-generation **pecan nut casebearer (PNC)** moths is tapering off. It is important to continue monitoring PNC moths and subsequent nut damage by larvae, but we need to be careful not to confuse PNC larvae with those of the **hickory shuckworm**. I would recommend setting up pheromone traps for hickory shuckworm; which traditionally has not received much attention locally.

Blackmargined pecan aphids (BMA) abundance is increasing. I expect aphid population levels to continue growing; especially if we encounter warm weather after the rains become less frequent. The current action threshold is 25 BMA per compound leaf. Dr. Mark Muegge and I would like to continue testing insecticide options for BMA. We started conducting these tests in the year 2010 and through this work we were able to recognize imidacloprid-resistant populations of BMA in El Paso and Hudspeth counties. Pecan growers have shown interest in the results from these trials. Data generated in field research are helpful not only to figure out which chemistries are the most effective locally, but also to reduce pesticide resistance by rotating insecticide groups with different modes of action. If you would like to participate conducting a test in a “hot” area in your farm, please let me know. We would like to establish this test in early September.

Black pecan aphid (BPA) levels are also increasing. They need to be monitored carefully due to their potential for leaf damage and early defoliation. Currently, Texas A&M AgriLife Extension guidelines recommend considering making insecticide applications when you find an average of 3 BPA per compound leaf. The action threshold recommended by New Mexico State University (NMSU) for BPA control is 1 per compound leaf. Other university systems use different thresholds for BPA management.

Beneficial arthropods are abundant; especially lady beetles, green lacewings, assassin bugs, and spiders. Let’s take the “friendly” bugs into account when making a decision to apply insecticides. Using pesticides that are less harsh on beneficial will pay off later.

ENTOMOLOGICAL CHALLENGES:

Recently, I received samples for identification of insect stages found on pecan leaves. Sometimes crop consultants or growers become alarmed thinking that they have discovered a new pest. Often, these samples correspond to beneficial insects or arthropods, but occasionally, it is something worthy of concern. In any case, I always enjoy helping growers, consultants, pest control operators, and the public in general with their insect identification and management questions. Here, I would like to share with you some of the latest “entomological challenges”, that I was tested with, coming from pecan orchards.

Figure 1



Figure 2.



Figure 1. Egg case of **assassin bugs**: Dr. Mike Merchant, Professor and Extension Urban Entomologist at the Texas A&M AgriLife Extension Service, presents a discussion on this group of insects on his website “*Insects in the City*” stating: “*Most assassin bugs (family Reduviidae)*

are predatory insects that are of great benefit to gardeners. They are proficient at capturing and feeding on a wide variety of prey including other bugs, bees, flies, and caterpillars. Preys are captured with a quick stab of the assassin bug's long mouthparts. After being immobilized by a paralyzing toxin, the prey's body fluids are then drawn through the assassin bug's soda straw-like mouthparts." As helpful as these insect are, be mindful of their potential for biting when mishandled. Their bite is reported to be painful and in extremely rare instances may produce anaphylactic reactions. More information: <http://citybugs.tamu.edu/factsheets/landscape/others/ent-1003/>

Figure 2. **Green lacewing** pupae or cocoons are often attached to pecan leaves in pecan orchards or to bracts, blooms, or bolls in cotton fields. The green lacewing cocoon is round and resembles a spider egg case. Lacewings, both as larvae and adults, are very helpful insects with an enormous appetite for aphids.

Figures 3 and 4.



Figures 3 and 4 depict creamy-colored **fall webworm** eggs that turn brown before hatching. Bill Ree on his pecan kernel website mentions that: "*Fall webworm caterpillars build large silken webs in pecan trees. A hundred or more caterpillars may be found inside the web, where they feed on pecan leaves. Large infestations may cover the tree with webs, causing severe defoliation.*" More info: http://pecankernel.tamu.edu/pecan_insects/pests/#fall

I would like to end this issue with a recent quote that I heard from a wiser man than me: "***Perfection is a good thing to strive for, but it is rarely attained – and never without some mistakes along the way. I have stepped up to the plate many times. Few home runs, lots of strike outs. The biggest error is to stop stepping up to the plate.***"

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