

Horticulture Update

Texas A&M AgriLife Extension Service Williamson County

Crops & Weather Report

May 1—May 31

Data From Georgetown II Weather Station
YTD= from January 1, 2015

Temps.

High	87°F	Precipitation	
Ave	81°F	Week	0.33 inches
Low	52°F	Month	10.73 inches
Ave	66°F	YTD	14.66 inches

Soil Temp.

Month High	82°F
Low	70°F
Ave.	76°F

Rain events this past month (inches):

First Week: SW 0-3.67; NW 0-.79; NE- 0-1.71; SE- 0-7.93
Second Week: SW .01-1.43; NW 0-1.69; NE 0-1.71; SE 0-7.93
Third Week: SW .01-3.32; NW .01-4.24; NE .41-1.71; SE T-1.10
Fourth Week: SW 0-4.5; NW 0-4.24; NE 0-6.01; SE 0-3.75

Evapotranspiration

Month	5.15 inches
YTD	18.89 inches

Relative Humidity

Month High	90%
Month Low	30%
Month Ave	60%
YTD- Ave	52%

Heat Units

Month	50°	732	Chilling Units	
	55°	577	Oct	2
	60°	422	Nov	231
YTD- 50°		1762	Dec	253
	55°	1273	Jan	390
	60°	822	Feb	244
			Season	1120

Crops Report:

The last three weeks of May were a disaster for crops in Williamson County. Flooding and standing water set up plants for water logging and fungus issues.

At least some of the applied nitrogen has been leached below the root profile, so additional nitrogen may be needed. We are seeing nitrogen deficiencies in the tomatoes in the demonstration garden and will supplement once the soil is not saturated.

Wet leaves are the perfect environment for many fungi and growers should be watching for this.

Walnut Caterpillar Concerns For Pecan Growers

Bill Ree has given us a heads up on what he thinks is the start of an on-going first generation walnut caterpillar infestation. So far he has received reports from only two counties, Fort Bend and Jackson, but is sure the activity is more widespread. Last year there was some significant activity across the state and Williamson County had second generation activity, so be on the lookout this year.

The best defense a homeowner or commercial producer can have to prevent significant foliage loss, and most likely crop loss, is to recognize the signs of an ongoing infestation before significant foliage loss and take management actions. If you do find them, I would ask that you please let me know so I can track the activity.

The walnut caterpillar overwinters as pupa in the soil under and around the host plants. Adult moths emerge during the late spring and females deposit a mass of 600 or more eggs on the undersides of leaflets. These



Cast skins from colony molt on side of tree trunk



Colony of Late instar larvae— photo from Bill Ree

egg masses are laid in a single layer and have no scales or hairs. Each female moth will deposit eggs only once during her lifetime.

After approximately nine days, larvae emerge from the eggs and begin feeding on the foliage. Young larvae skeletonize the leaf by feeding only on the leaf surface—older

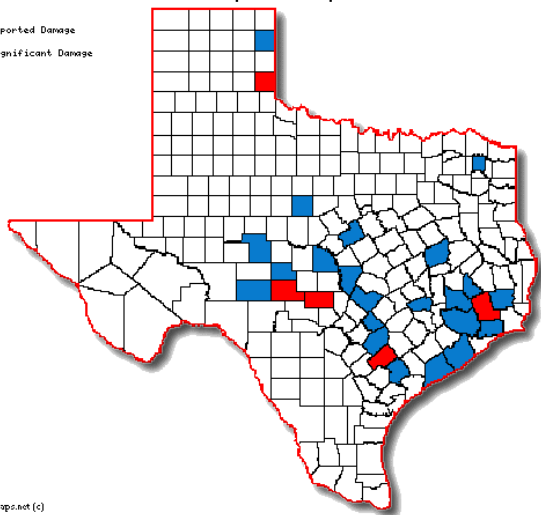
Williamson County Horticulture Calendar

June 10—Private Pesticide Applicator Training, 8 a.m. to 12 noon: Williamson County Extension office, Georgetown

June 16—Stiles Farm Field Day, Registration 7:30 a.m., Programs begin at 8 a.m.: Joe Schram to present on Aquaponics at 1 p.m.

2nd Generation Walnut Caterpillar Reports 2014

- - Reported Damage
- - Significant Damage



Source: dlynops.net (c)

larvae consume the entire leaf, leaving only the leaf stalk or petiole. Larvae feed for approximately 23 days, during which they go through five stages (instars).

Unlike the larvae of some leaf-feeding caterpillars, walnut caterpillar larvae do not build webs. During the first four larval stages, the reddish-brown larvae feed as a colony so damage will likely be localized on a few branches. It is common to find several hundred larvae feeding on a single terminal. When the larvae are ready for the fifth instar, they move to a main limb or the tree trunk to molt as a group. This molt leaves a patch of cast skins on the tree trunk or limb.

The fifth instar larvae are black with long white hairs and after molting they return to the canopy to feed as individuals rather than as a colony. During this three to five-day feeding period, fifth instar larvae consume about 80 percent of all the foliage they will eat in their lifetime. The larvae then leave the host plant to pupate in the soil.

In Texas, the walnut caterpillar can produce two or three generations per year depending on the number of frost-free days. Two generations are possible when there are fewer than 245 frost-free days—three generations are possible when there are more than 245 frost-free days.

Unlike early season caterpillars that feed on new growth, walnut caterpillar larvae prefer mature foliage. Consequently, infestations will not appear until late spring or after foliage has matured.

Trees or branches that were defoliated will initiate new growth, which should not be damaged by the next generation. To help prevent significant defoliation, homeowners and commercial opera-

tors should know the following symptoms. Early detection is important so control measures can be applied before significant damage occurs.

Signs of activity:

- Localized areas of skeletonized leaves
- Colonies of reddish-brown larvae
- Foliage loss from larvae feeding
- Masses of cast skins on the tree trunk or main scaffold limbs
- Fecal material (frass) on sidewalks, driveways, equipment, and ground

Control

During most years, natural predators and parasites keep walnut caterpillar populations in check. Several species of wasps and flies consume egg masses and larvae, and many other insects and spiders prey upon larvae.

On small trees, homeowners can achieve some control by removing egg masses from leaves and larvae from the branches. For large trees or for large acreage, an insecticide application is the most practical way to prevent damage.

Insecticides that are recommended for homeowners will contain spinosad or *Bacillus thuringiensis* as their active ingredient. These insecticides are selective for caterpillars (Lepidoptera larvae) and very safe to humans. To increase the effectiveness of insecticides, apply them when the larvae are small and ensure that the spray covers the entire canopy. Broad-spectrum insecticides can be effective but carry some risk for the applicator and may cause secondary insect outbreaks.

Commercial growers may consider insecticides that contain B.t., Carbaryl or malathion.

Insecticide labeling is subject to change, so always consult the label for target sites and pests, application rates, and safety precautions. The user is responsible for the effects on his or her plants, as well as problems caused by drift onto adjacent properties.

Pecan Nut Casebearer Reports

I have not received any first generation PNC reports so the window has passed and some producers opted not to treat. However Bill Ree notes, just because first generation was light does not necessarily mean second generation will be light. Although the PNC Forecast model is not set for the second generation, pheromone traps can be used to detect the onset of the flight and eggs can still be found fairly easily. If your crop is marginal or light it is a good idea to monitor second generation activity. With the ability to monitor the flight and find eggs I recommend scouting for second generation activity, if you find them, please let me know.