

UGA Extension Meriwether County ANR E-Newsletter
August 19, 2016

INVASION OF THE FALL ARMYWORM

If you haven't had a problem with fall armyworms (*Spodoptera frugiperda*) this summer, you probably know someone who has. There are over sixty different plant species that they are known to feed on but they have mostly been found here in Bermudagrass pastures. I got the first notice this week of them feeding in an alfalfa field. My first encounter, years ago, with fall armyworms was in a neighbor's Bermudagrass lawn. So beware: urban folks are not immune to the damage that they can cause. (Since I wrote the last two sentences I got my first notice of fall armyworms in a Bermudagrass lawn here in Meriwether County. It was seeded about a month ago, so this is basically its very first growth being eaten.) Since the armyworms have been so prevalent and damaging this year, I've had a request to write about their life cycle and biology. The life cycle is pretty straight forward; the biology is a little more complex.

Adult moths migrate into our area and at night mate near the plants on which the females will lay eggs. Eggs are laid in masses of fifty to over a hundred. The female only mates once a night but will mate for consecutive nights so potentially there will be groups of larvae at different ages in a field from eggs laid on multiple evenings. Larvae will hatch out in 2-4 days and proceed to feed and develop through 6 instars (stages of growth during which they molt or lose their old exoskeleton and develop a new one). The first three to four instars feed but don't do much damage. It is the last two instars (mostly the 6th) that do 80% of the feeding damage and that will cause a farmer to say to me "It happened overnight!" So in some ways they are correct-most of the damage may have happened overnight-but the armyworms will have been there for at least 10-20 days. The 6th instar, after about 4 days of feeding, will drop and tunnel into the ground 1-3 inches deep to pupate. The pupal stage lasts about 7-9 days after which the adult emerges and the cycle starts all over again. In our area, during the summer, the life cycle is supposed to take around 30 days. I looked back to see when **I sent out the first alert for fall armyworms** found in fields near Pine Mountain. The date was **July 14th**. This most recent alarm began this past weekend which would make it right at 30 days between the two populations.

What should you take from all of the above information? Basically, that you have **plenty of time** from when the larvae first make an appearance in your fields to manage them before they do lots of damage. **As soon as a first alert goes out you should be scouting your pastures and fields at least twice a week** for possibly a couple of months. If you are scouting correctly and doing it regularly you will be able to begin a management practice (spray or cut for hay) while the larvae are small. Remember they will not do much damage until they have reached a length of 1-1 ½ inches. **And there may be multiple generations so don't stop scouting until you are certain that they are no longer reproducing in the area.**

SCOUTING:

During sunny days the larvae, on grass, will drop to the ground where it is shadier. They will also drop when the grass is disturbed. So you should be looking on the ground if scouting during the day. You may have to scrape away any grass mulch that is on the surface-they will hide under it. Most of their feeding will occur in the morning or late in the day so if you are scouting at that time you may actually find them on the grass. I went and looked at the alfalfa field this week that had armyworms (see images below). I was out there around noon but because there is more leaf coverage on alfalfa many of the armyworms were still in the canopy of the plants where there was plenty of shade. When I brushed the plants with my hands, though, the larvae would then drop to the ground. You should be walking a zigzag pattern through your field (a w pattern works well) to cover the largest area. I scouted this way in another field of Bermuda this past week and stopped to look at about 20 spots. There were only 2 "hotspots" where the number of larvae actually justified spraying-the rule for an insecticide application is "when the count exceeds 3 larvae $\frac{1}{2}$ inch or larger per square foot". In such a case as above, the farmer could decide to spray just in those "hotspots" as opposed to the whole field. You would probably want to be fairly certain that you had found all of the hotspots though. If you find yourself in the situation where you didn't scout and all of the armyworms were large, you might decide to go ahead and cut the field because it is probably too late for the insecticides to be helpful. Cutting is also an option if you find small larvae but it is almost time to cut anyway. In both cases you avoid spraying which can be costly.

In the image on the left you may be able to see the inverted "y" on the head of the larvae that is diagnostic for fall armyworms. In the image in the middle you can see fall armyworm webbing to the right and feeding damage on a leave to the left. In the image on the right you can see the stages of development. The last (6th) instar is missing. Younger larvae will not eat the whole leaf; they will create "windowpanes" by feeding through small areas or eat just a portion of the leaf surface, as seen below. Seeing this damage can let you know that fall armyworms have arrived. You still need to scout for the actual larvae, though, so you will know what stage of development that they are at. You may have a mix of sizes.



With regards to their complex biology, I will mention a few things. Research has shown that there are two probable paths of migration for fall armyworms to move into areas of the United States where they cannot overwinter. Genetic testing done in the 1980's and 1990's showed that there were two distinct populations of migratory fall armyworm adults-one that moved in from south Texas and Mexico and one that moved up from south Florida. But research has also suggested that some late summer/fall infestations of fall armyworms are actually moths on a reverse migration-they are heading back south. Even more recent research suggests that the genetic separation based on geography is not as well marked as it once was. What has remained the same, though, is that there are two genetically distinct strains of fall armyworms based on food preferences. There is a strain that prefers large-seeded grasses like corn and sorghum and another that prefers small-seeded grasses like rice and Bermudagrass. So far these strains have been shown to be incapable of successfully cross breeding. Eventually we may learn enough about their complex biology to be better able to manage them. If you would like even more information about fall armyworms, just let me know.

Pesticide recommendations for pastures can be found here:

<http://www.ent.uga.edu/pest-management/Commercial/GA-Pest-Management-2016-Commercial-PASTURE-FORAGE.pdf>

Pesticide recommendations for lawns can be found here:

<http://www.ent.uga.edu/pest-management/GA-Pest-Management-2016-Home-TURF.pdf>

If You Think We Have It Bad....

Whenever I start feeling sorry for myself I make myself remember that there is always someone with worst problems. If you follow the link below you will be able to see how bad it has been for the folks in Louisiana. After watching the videos on the **USDA Water and Climate Update for August 18th** I guarantee that our drought won't look so bad to you anymore.

<http://www.wcc.nrcs.usda.gov/ftpref/support/drought/dmrpt-20160818.pdf>

FRUIT GROWERS

I forgot last week to mention the MyIPM app. It's the next best thing to your county agent. The **MyIPM** series smartphone applications were developed by Clemson University in collaboration with Cornell University, University of Massachusetts, Pennsylvania State University, North Carolina State University and the University of Georgia. The apps are available for free in the **Apple Store** and **Google Play Store** to promote **Integrated Pest Management** for sustained, commercial fruit crop production. There currently are two disease apps and one pest app available. The disease apps are **MyIPM-SED (peaches, strawberries, and blueberries)** and **MyIPM-NED (apples, pears, cherries, and cranberries)**. The pest app is **MyIPM-SEP**. **SED** stands for **Southeastern US Diseases**, **NED** stands for Northeastern US Diseases, and **SEP** stands for **Southeastern US Pests**. It includes the following features:

- Diagnostics, including description and pictures of fruit crop diseases, pests, and disorders.
- Name and description of the causal agents, including a 2-min audio from the regional specialist
- Chemical and biological control tactics
- Registered conventional and biological active ingredients for each disease/pest, sortable by FRAC codes, efficacy, and EIQ value
- Registered conventional and biological products (trade names), rate per acre, PHI, REI
- Audio recordings from regional specialists

PROGRAMS

WILDLIFE

Wildlife Program

For Harris, Meriwether, Muscogee and Troup Counties

PLANTING FOOD PLOTS FOR DEER: THE HOW, WHERE, WHY AND WHEN

Presented by Dr. Mark McConnell, UGA Wildlife Outreach Specialist

Thursday, September 1st 6:30-8:00 PM

At Oakhurst Farm 19888 HWY 219 West Point, GA

This program is free.

Coffee, drinks and snacks will be available.

To pre-register please contact Angie Ledford at 706-672-4235,

For more information contact Susan at scj24262@uga.edu

POULTRY

Backyard Poultry Flock Management Program

Tuesday, October 4th from 7:00-8:30 PM

Dr. Casey Ritz, UGA Poultry Science Department

Basic Management, Breed Selection, and Disease Prevention

Tuesday, October 11th from 7:00-8:30 PM

Dr. Brian Kiepper, UGA Poultry Science Department

Meat Chicken Processing and Food Safety

Tuesday, October 18th from 7:00-8:30 PM

Dr. Claudia Dunkley, UGA Poultry Science Department

Bird Behavior, Housing and Management, Layer Production

Bogle Farms

1785 Harman Road

Greenville, GA, 30222

Cost:

\$20 for attending all 3 classes (includes all course materials and a certificate, if all classes are attended)

\$10 per single session class (includes course material but no certificate)

Coffee, drinks and snacks will be available.

Egg Candling Class

Friday, October 7th from 10:00 AM-3:00 PM

Georgia Department of Agriculture: **Ben Pitts**, Instructor

Manchester Public Library Meeting Room

218 Perry Street ~ Manchester, GA

If you plan to sell your eggs to individuals, or at a farmers market, an egg candling certificate from the Georgia Department of Agriculture is required.

The class will last about four hours, including one hour of classroom instruction, followed by a written examination and a hands-on candling examination.

There will be a one-hour lunch break on your own. The class is free and open to any interested Georgia resident.

To pre-register for the class and [to get a copy of the required affidavit of lawful presence](#), please call the Meriwether County Extension office at 706-672-4235. If you have any questions please contact Susan James at scj24262@uga.edu or Ben Pitts at Benjamin.Pitts@agr.georgia.gov

LIVESTOCK and FORAGES

HERD Field Day

Wednesday, August 31st, 9 AM-4 PM
UGA Alapaha Beef Unit
20038 HWY 129, Alapaha, 31622

Join UGA Extension for an educational Field Day enhancing practical knowledge and discovering more of what the Georgia Heifer Evaluation and Reproductive Development Programs are all about! Registration with coffee and donuts begins at 8 AM.

Registration includes all materials, seminars, BQA Certification, and lunch. The program will include:

- BQA Training: Parts 1 & 2
- Heifer Development Strategies for Optimal Reproduction
- Consumer Perceptions and Education
- BQA Demo: Low Stress Handling and Proper Vaccine Administration
- A. I. Synchronization and Protocol Introduction
- H.E.R.D. Program: Grading and Disposition Scoring

Cost: \$15.00 if postmarked by August 8th; then \$25.00.

For more information or to register please visit: <http://blog.extension.uga.edu/beef/>

Calving Techniques Class

Presented by **Dr. Lee Jones**, UGA College of Veterinary Medicine
October 3rd starting at 6:30 PM

Lemmon Cattle Enterprises at 16810 Woodbury Hwy, Woodbury, GA 30293

Lee will be teaching simple calving-difficulty assistance techniques. **He will also talk about lambing and kidding difficulties for those who are interested, so small ruminant folks should attend also!** Coffee, drinks and snacks will be available. This class is free.

To pre-register please call our office at 706-672-4235 or for more information please contact Susan James at scj24262@uga.edu

OTHER COMMUNITY EVENTS

Alcohol Prevention Project in Manchester

Thursday, August 25, 2016 5:30-8:30 PM

Manchester Community Building

105 2nd Avenue, Manchester GA

There will be a group discussion on substance abuse prevention for youth who display at risk behaviors and also give parents and guardians the tools to combat these behaviors.

All interested parties are welcome but especially educators, mental health providers, counselors, caregivers, parents and guardians, law enforcement, government officials and youth.

Registration begins at 5:00 PM. There will be door prizes and food.

2nd Annual Roosevelt Warm Springs Development Fund Benefit

Clay Shooting Tournament-All Ages Event

Saturday, August 27 10:00 AM-1:00 PM

Big Red Oak Plantation Gay, GA

bigredoakplantation.com

Advanced registration is required

Cost: \$100 Individual and \$375 Team of four

To register or for more information contact Erin Young at 706-655-5666

The 3rd Annual First Responder Luncheon

Sunday, September 11th 12-3 PM

American Legion Post 186

Gay Road, Greenville, GA 30222

You can help by dropping off a dish or dessert or by being on hand to help serve the meal. Please contact Larry Dunaway for more information at

lsdunaway@wirelessometown.com

Home Gardening, Food Production and Nutrition Seminar

Hosted by Harris County Extension and Chipley Coop

Monday, September 19th 9:30 AM-3:00 PM

Chipley Coop at 204 N. King Street Pine Mountain GA 31822

Topics covered include basics of planting a vegetable garden; variety selection; organic production; and food nutrition, preservation and safety.

Pre-registration is required by September 14th by calling the Harris County Extension office at 706-628-4824.

For more information please visit:

<http://ugaextension.org/county-offices/harris/agriculture-and-natural-resources.html>

2016 Meriwether County Teen Maze

Volunteers Needed

Friday, September 23 8:00 AM-2:00 PM

At the old Greenville Middle School auditorium

TEEN MAZE is an organization that promotes awareness about various issues and problems facing adolescents within the community. Ninth graders will navigate through a life-size maze that offers real life choices in order to discover the consequences of their behaviors. Along the path, professionals in their field of expertise present information to students. The TEEN MAZE is designed to allow young people the opportunity to explore lifelike situations and their consequences without real-life permanency.

Teens will be given a scenario and then experience the consequences of the fate dealt to them, whether it is pregnancy, STD from unprotected sex, texting while driving, sexting or death from driving under the influence of alcohol. Our goal is for youth to understand their choices regarding sex, alcohol, tobacco, and drugs.

If you are interested in volunteering, please contact:

Lisa Parker at 706-672-1118 or lparker@pathwayscsb.org for the necessary forms or you can contact me (scj24262@uga.edu) and I will email them to you.

International Professional Rodeo Association

Southeast Region Finals Rodeo at Quercus Farms

October 14th and 15th 8:00 PM

Flat Shoals Road, Gay Georgia 30218

The rodeo benefits veterans through RACE FOR THE WOUNDED:

<http://raceforthewounded.com/>

Tickets go on sale Oct 1st

Tickets are \$12; 6 and under free

Get advanced tickets at Shady Days in Gay Arts and Craft Festival on Oct 1st & 2nd for only \$10

Come ride a horse before the show. Bring the kids to have their face painted. Lots of food and fun so don't miss out. Gates open at 6 and the action (bareback and saddle bronc riding, barrel racing, bull riding, roping and steer wrestling) starts at 8. Free parking

For more information contact:

Susan Pritchett, SRFR Representative, at 678-603-0038 or susan@srfrodeo.com or visit: <http://www.srfrodeo.com/>

Great American Clean-Up in Meriwether County

Volunteers Needed

Saturday, October 22nd 8:00 AM-4:00 PM

It's time to start signing up again! Help Keep Meriwether Beautiful by cleaning up trash around your home or business on this day.

We have sign-up forms on our table outside our office or you can contact me (scj24262@uga.edu) and I will email them to you.

Have a great weekend!
Susan

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