Shaping up to be a fall armyworm year in pastures!
Conditions FAW outbreaks

- Long drought period
- Rainfall to cause rapid plant growth
- Highly fertilized forage usually favored
Treatment decisions for FAW

- Pastures rule-of-thumb treatment level is 3 + per square foot
- 3 FAW/sq foot consume 30% leaf area of good stand of coastal bermudagrass
- Consider cost to treat, forage value, forage needs
Fall Armyworm Control in Jiggs Bermuda Grass

number per 5 sweeps @ 2 DAT

oz/A

- Endigo ZC 4.0
- Endigo ZCX 4.0
- Besiege 8.9
- Baythroid XL 2.8
- Intrepid 4.0
- Untreated

Calhoun County 2012
Insecticides for Fall Armyworm Control in Bermudagrass Pastures

2.5 in. Rainfall 1 DAT
Insecticides for Fall Armyworm Control in Bermudagrass Pastures

- Prevathon and Belt control FAW with long residual (14 days)
- Pyrethroids like Baythroid have limited residual.
  - Whole pasture sprays should control most worms.
  - Border sprays with Prevathon or Belt will prevent reinfestation from existing worms outside spray area.
Bermudagrass Stem Maggot: A New Pest to Bermudagrass Pastures

Matagorda County Beef and Forage Seminar
June 2, 2017

Robert Bowling
Texas A&M AgriLife Extension
Department of Entomology
Corpus Christi
Bermudagass Stem Maggot

- New to Texas
- Asian Native (Japan, Indonesia, India)
- Georgia in 2010
- Texas in 2013
- Widespread across Texas pasture regions
- Confirmed in mid-south, SE, West Coast
Bermudagrass Stem Maggot

Identification and Life Cycle

• Small, yellow fly

• Lays its eggs on the stem of the bermudagrass plant

• Larva are yellowish and grow to ~1/8 inch long

• Mature larva leaves stem and pupates on or in soil

• Overwintering stage?

• Life cycle completed in two to three weeks

• Multiple generations
Bermudagrass Stem Maggot

Damage:

• Larva burrows into the shoot and consumes the plant material within the stem
• damage results in the death of the top two to three leaves

• bermudagrass has appearance of frost damage
Bermudagrass Stem Maggot

Damage:

• The shoot stops elongating as a result of the insects damage.

• In response, the plant may grow another shoot from a lower node of the damaged shoot.

• This new shoot can also be attacked by later generations of the bermudagrass stem maggot.

• Unsightly appearance may cause some buyers, especially those for the horse market, to reject hay.
Factors Influencing Risk of Damage by BGSM:

• Good growing conditions with good soil fertility and moisture, damage from the maggot seems to have minimal impact on dry matter yield.

• However, if forage production is limited by poor soil fertility and dry soil conditions, maggot damage has a greater potential to reduce yields.
Bermudagass Stem Maggot

Management with Cultural Practices:

• Haying

✓ Removes eggs and maggot with the grass, thus preventing an increase in the fly population

✓ Larvae in hay will die eliminating the chance for completing life cycle

• Grazing
Bermudagass Stem Maggot Management with Cultural Practices:

- Haying

  ✓ Unmanaged pasture had >200 damaged stems/sq. ft.

  ✓ Managed pasture (hayed and grazed) <25 damaged stems/sq. ft.
Management Cultural Considerations:

• Management recommendations developed in Georgia and Alabama suggest that if damage (10% to 20% of pasture showing damage) is found within 1 week of the normal harvest stage, proceed to harvest the crop as soon as weather conditions allow.

• Once the damage becomes apparent, the crop is unlikely to add a significant amount of yield.

• Maggots feeding in the stem will die once the crop is cut and dried for harvest.

• However, flies will emerge from pupae in the soil and re-infest the field.
Bermudagass Stem Maggot

Management with Cultivars:

- Georgia suggest that damage is more common in finer-stemmed cultivars, such as:
  - Coastal
  - Alicia
  - Russell
  - common Bermuda

- Infestations in **coarser-stemmed** varieties such as Tifton 85 appear to less damaging.
Bermudagrass Stem Maggot

Management with Insecticides:
• Applying an insecticide applied a few days after the field is cut and baled will kill emerging flies to protect regrowth.

• A foliar application of a pyrethroid insecticide labeled for bermudagrass will kill adult flies for several days.

• A second application 5-7 days later may be necessary.
Bermudagrass Stem Maggot Insecticide Efficacy Trial
Lavaca County, Texas
July 22, 2015 – 10 Day Post Treatment Evaluation

Bar chart showing the number of damaged terminals for different treatments:
- UTC
- Prevathon 10 oz/a
- Besiege 6 oz/a
- Mustang Max 3 oz/a

Treatment categories with different letters indicate statistically significant differences.
Summary:
- BGSM a new invasive pest of bermudagrass in Texas
- Adult is a small yellow fly
- Damage caused by larva tunneling into stem above top node of plant
- Loss more severe in stressed pastures
- Mgt with Cultural practices (haying and grazing)
- Cultivars with course stems less damaged
- Economic threshold 15% to 20% of stems with BGSM injury
- Pyrethroids are effective and inexpensive option to manage BGSM in pastures
BGSM and Weed Mgt Field Day:

➢ When: June 27, 2017

➢ Where: Wilson County

➢ Contact: Mr. Bryan Davis
  ✓ https://wilson.agrilife.org/events/
  ✓ Office: (830) 393-7357
  ✓ Bryan.davis@ag.tamu.edu
Insects, like the sugarcane aphid (saccharina sacchari), cause problems for field crops like grain sorghum. You are in the right place to learn to get better yield by protecting your field crops. We hope you take advantage of Better Yield in the Field. Click any of the images below to start learning!

**Learn the basics about the sugarcane aphid in sorghum.**

**Follow us for the latest field crop news!**

**Our Goal**

We provide field crop post-management resources, training videos, blog posts, and articles. Our current focus of outreach programs is sorghum and cotton production insects. Though some insects are beneficial, a major focus is to help farmers understand harmful insect pests. We have produced training videos about insect collecting, the principles of IPM, and more. If you prefer reading, a list of publications is also available here. Much of the information we provide applies to other settings, but we recommend contacting your local extension office. If you would like to access our Spanish materials click here.

**The Sugarcane Aphid**

A current hot topic is the sugarcane aphid. This aphid is an invasive species that causes significant crop damage to sorghum. It has recently come to the United States and is a major problem in Texas. Through the training offered on this site, you will learn to identify and estimate its density.