

Hayfield Pests: The Worst of the Worst

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Bermudagrass stem maggot

Atherigona reversura

- First found in Georgia in 2010
- Now found throughout range of Bermudagrass
- Maggot chews stem at the first node, killing the last 2 leaves



- Bermudagrass stem maggot



Photo by L. Wiggins



Photo by S. Carlson

- BSM Damage



- Heavy BSM Damage



Photo by S. Carlson

BSM Management

- Check finer-textured varieties before harvest
- If there is noticeable damage, plan to treat 10-14 days after cutting
- Pyrethroids work, no preference for which
- Unirrigated fields may require a second treatment if regrowth is slow



BSM Management

For middle GA, the July cutting is usually the first to show damage. Damage may appear in June farther south.

In UGA trials, a single application has been effective for irrigated fields. Without irrigation, slower regrowth may mean a second application 10-14 days after the first.

Once the grass is 6"-8" tall, it may be more practical to cut and protect the regrowth if damage is heavy.

If the field next door is mowed, the flies will move!

Armyworms



FALL ARMYWORMS

- ADULTS - MOTH
- EGGS LAID IN MASS
- GENERATION - 28 DAYS
- OVERWINTERS IN FL.
- DRY SUMMERS OFTEN WORSE



ARMYWORMS



- SYMPTOMS: GRASS BLADES EATEN
- THRESHOLD: VARIES WITH SIZE AND WEATHER
- TREATMENT: CONFIRM, PYRETHROIDS, SEVIN, OR DIMILIN
- DIAMIDES ARE GOLD STANDARD (\$\$\$)
 - Prevathon, Besiege

Which Insecticide?

- How early?
 - The earlier they show up, the more treatments you are likely to make
- How much hay do you have/need?
 - In good years, late cuttings may not be eaten
- How much do you want to spend?
 - Pyrethroids are cheap, but repeated applications add up.
 - If you treat more than 2-3 times, you've spent more than the diamide

Fire Ant Biology



- Colony life begins with a mating swarm
- Mated queens dig or find a spot to construct a cell in the earth, then lay first eggs
- Developing larvae are fed by queen
- Once the first workers become adults, foraging begins
- First reproductive produced >6 months after the new queen initiates the colony

Fire Ant Facts

7 Years – life span of a fire ant queen

60-90 days – life span of fire ant worker

400,000 – possible number of workers in a mature colony

1,000 – number of eggs a fire ant queen may lay in a day

Fire ants swarming







Workers

Adult
Workers

Egg

Larvae

Pupae

Winged
Female

Queen

Reproductives

Winged
Male



Fire ant mound



- foraging occurs between 72°F and 96°F
- Thermoregulation within the mound

Fire Ant Control

- 2-step program
 - Baits twice per year
 - Mound treatments for established colonies
 - The best approach, if area is large enough
- Broadcast/contact treatments
 - Quick results
 - Effective for small areas or short time
 - More expensive than baits

Fire Ant Control Options

- Baits
 - Cheap - \$20-\$30/acre
 - Slow – 3-8 weeks for control
 - The best option for large areas
- Broadcast/Contact
 - Quick
 - Provide a few weeks – a year of control
 - Price varies from <\$10 to >\$200 per acre

Fire ant treatment methods: BAITS

- Some commonly used **baits**:

avermectin	Ascend, Clinch, Varsity
fipronil	Maxforce FC
hydramethylnon	Amdro, AmdroPro, SiegePro, Combat, MaxForce, Probait, Raid
indoxycarb	Advion, Spectracide, Real-Kill
insect growth regulators (fenoxycarb, methoprene, pyriproxyfen)	Award, Logic, Extinguish, Distance
spinosad	Greenlight, Safer, Conserve
hydramethylnon+methoprene	Extinguish

Fire ant treatment methods: Chemical Control

- Some commonly used contact insecticides:

acephate	Orthene, other names
botanicals	
carbaryl	Sevin, other names
fipronil TopChoice,	Chipco Choice,
inorganic compounds	Boric acid, diatomaceous earth
pyrethoids	Talstar, etc.
spinosad	Conserve, Greenlight,
others	

Natural Control

