

Peanut Insect Management: Soil Insects & Other Things You Should Know

Panhandle Row Crop Short Course
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Soil Insect Management: It sucks, and that's just the way it is.

- Soil Insects of Concern in Peanut
 - Peanut burrower bug
 - Lesser cornstalk borer
 - Southern corn rootworm
 - Wireworms

Peanut Burrower Bug

- Native to the US
- Piercing/sucking mouthparts
- Feeds on kernels within pods
- Damage varies significantly from year to year and field to field



Burrower Bug Management

- There are no guarantees.
- Deep tillage can reduce injury.
- Granular chlorpyrifos can reduce injury.
- Trapping can help with insecticide decisions.
- There are no resistant cultivars.



Lesser Cornstalk Borer

- Overall the most damaging pest of peanut
- Thrives in hot, dry sandy soils
- Difficult target for insecticides
- Insecticide options
 - Granular
 - Chlorpyrifos
 - Foliar insecticides
 - Prevathon
 - Diamond



Rootworms

- Can be a very serious pest
- Adults are not pests of peanut
- Larvae live below ground
 - Can only survive in moist soil
 - Typically found in heavy soils (clay) or high OM
 - Feed on roots and pods
- Chemical control
 - Granular chlorpyrifos





Wireworms

- Immature stage of click beetles
- Wide host range
- Many species & it matters
 - Some have multiple year life cycles & some have multiple generations/year
 - Susceptibility to insecticides varies



Wireworms

- Little research on WW in peanut
- Management options are few
 - Chlorpyrifos
 - PPI liquid or pegging time granular
- Probably cause more losses than we realize...



Soil Insect Management: It sucks, and that's just the way it is.

- We are going to lose chlorpyrifos.
- The prospect of new AI's for soil pests does not look good.

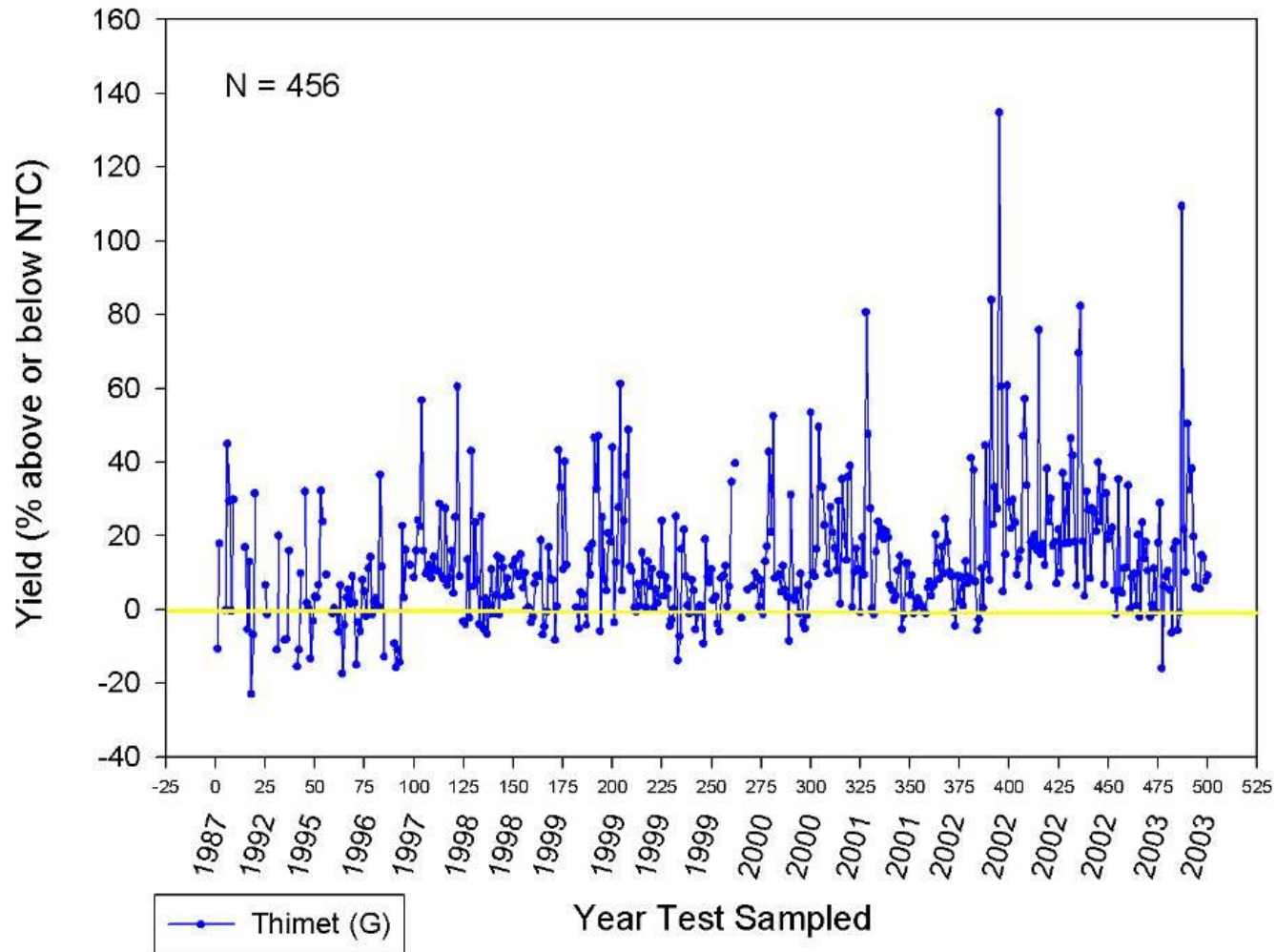
New chemistry for insect pests in peanut: 2019

Managing foliage feeders

- Thrips
 - Cultural management
 - Insecticides
 - At plant: Thimet, Ag Logic, imidacloprid
 - Foliar spray: Orthene
- Three cornered alfalfa hopper & potato leaf hopper
 - Pyrethroids**
- Caterpillars
 - Many options available, scout and choose the appropriate AI

Yield of Peanuts: Thimet, 1987-2003

Georgia Agricultural Experiment Stations, Jim Todd, Project Leader



Two Spotted Spider Mite

- Usually a late season pest
- Thrives in hot, dry conditions
- Infestations can grow rapidly
- Made worse by OP and Pyrethroid insecticides



Two Spotted Spider Mite







TSSM Management Options

- Comite/Comite II
 - Yes, it is expensive.
 - Yes, it can cause phytotoxicity.
 - Yes, you might have to spray twice.
 - Yes, it is **legal** to use and **effective** when applied correctly.
- Bifenthrin: Don't do it!



Two Spotted Spider Mite



Untreated



Bifenthrin (6 oz/a)

Take this home...

- Soil insect management is a challenge and options are limited.
- Scouting will help you avoid mistakes.
- Use economic thresholds.
- Peanut fields do not need to be insect free.
- Choose the correct insecticide for the job.
- Good luck in 2019!

<https://blog.extension.uga.edu/peanutent/>

