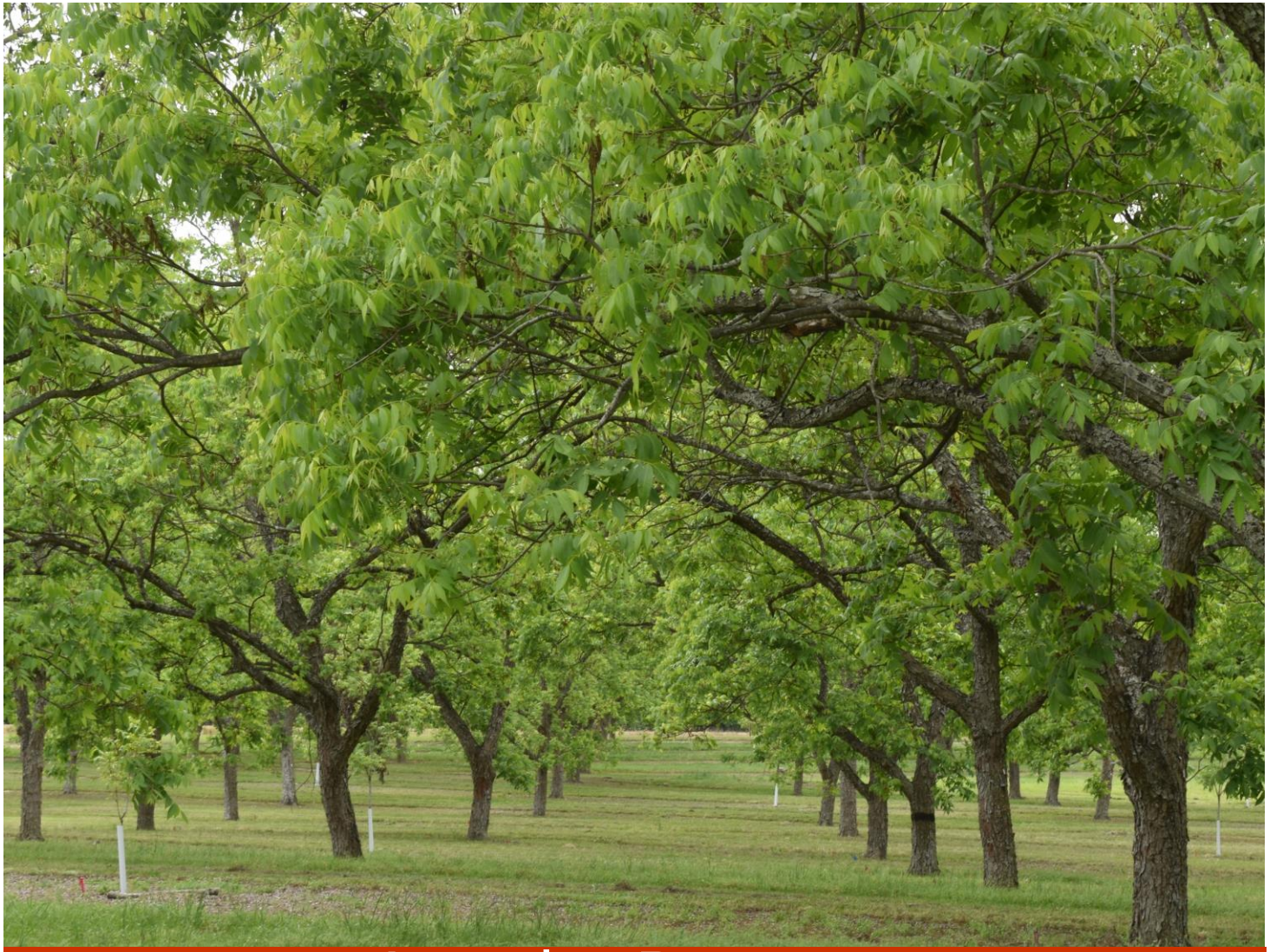
Pecan Insect Pest Research Update: 2025



Apurba Barman
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Ambrosia beetles

- Tiny beetles, bore into to core of the young trees
- Young trees are more vulnerable
- Trees can recover, but more attacks could kill young trees
- Keep and eye for sawdust toothpick structure
- Prefer stressed trees: trees on wet areas, root disease, freeze damage etc.

Trapping/monitoring of ambrosia beetles

- Bolt of wood, drill hole in the middle
- Pour ethanol/denatured alcohol, into the hole, plug the hole
- Deploy traps along woodlines next to orchards by early Feb
- Look for sawdust toothpicks on bolts
- Pyrethroid application on tree trunk upto 3-4 feet, @ 7-10 days interval (Feb- April)

Phylloxera on pecan

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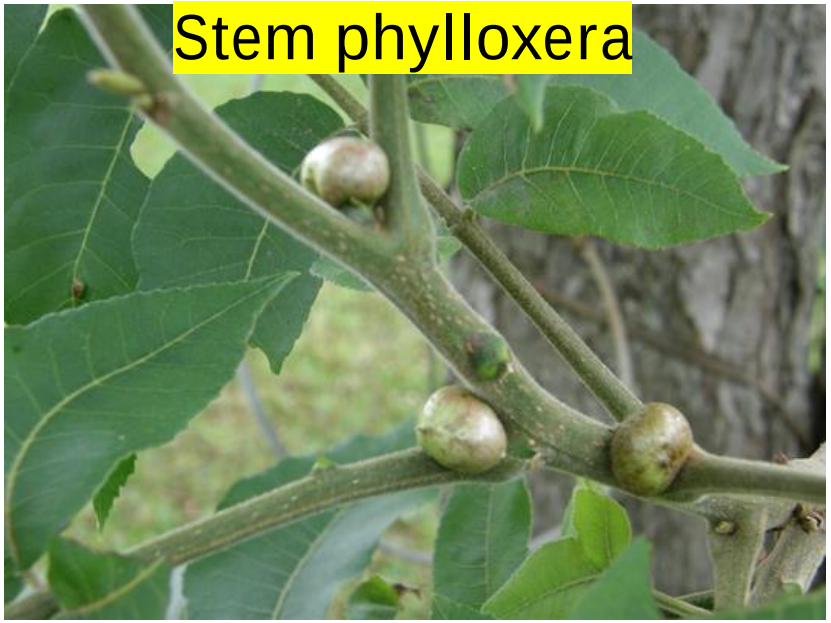

- Stem phylloxera is more damaging than the leaf phylloxera
- Early leaf drop, affects nut production and size
- Infestation is likely on the same trees as the adults lay eggs near the base of the trees
- Treatment should go out right after the bud-break

Managing phylloxera with imidacloprid: 2024

Timing: at bud break (March 28, 2024)

- Imidacloprid only
- Insect-proof net cage only
- Imidacloprid plus net cage
- No cage, no application

- Imidacloprid (Macho 2.0 F) applied @ 5.6 fl oz per acre.
- After a month, ten leaves were randomly collected
- Number of phylloxera galls counted

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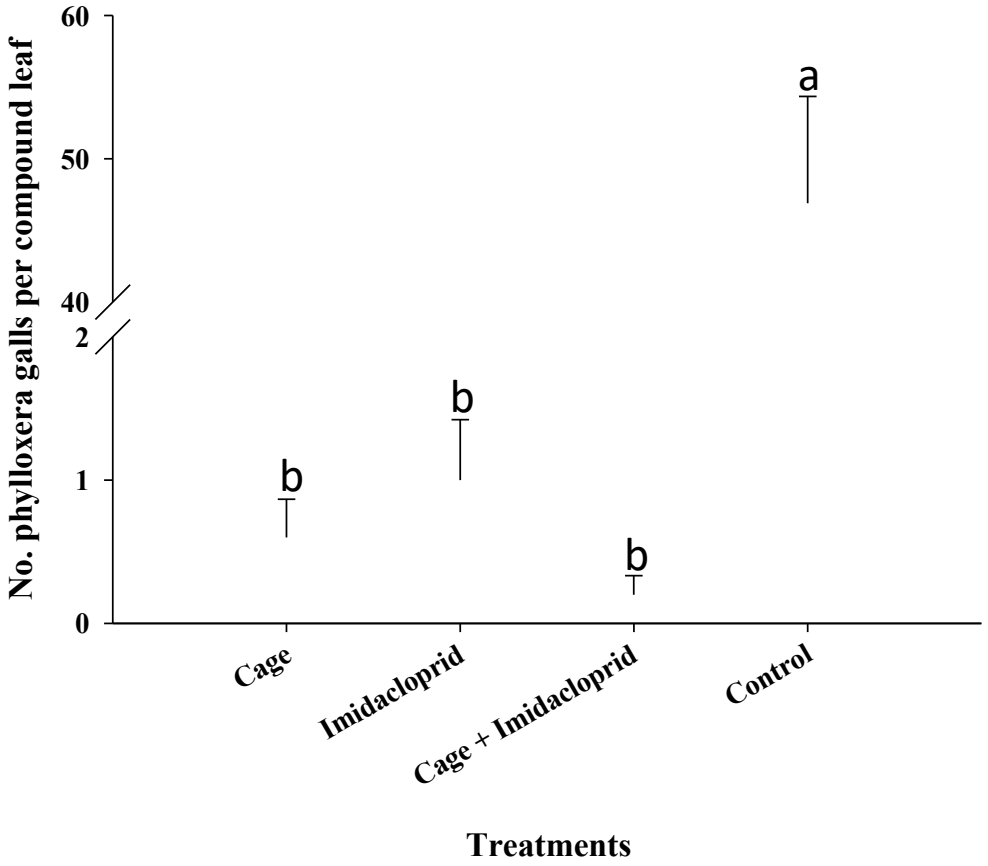
Managing phylloxera with imidacloprid: 2024



Treatments	No. phylloxera galls per compound leaf (Mean±SE)
Cage	0.6 ± 0.25 b
Imidacloprid	1 ± 0.4 b
Cage + Imidacloprid	0.2 ± 0.12 b
Control	47 ± 7.07 a

Mean (±SE) number of phylloxera leaf galls on different treatments.

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Phylloxera on pecan

- First generation hickory shuckworm population builds up on phylloxera galls in pecan orchards
- Applications for shuckworm is likely later in the season

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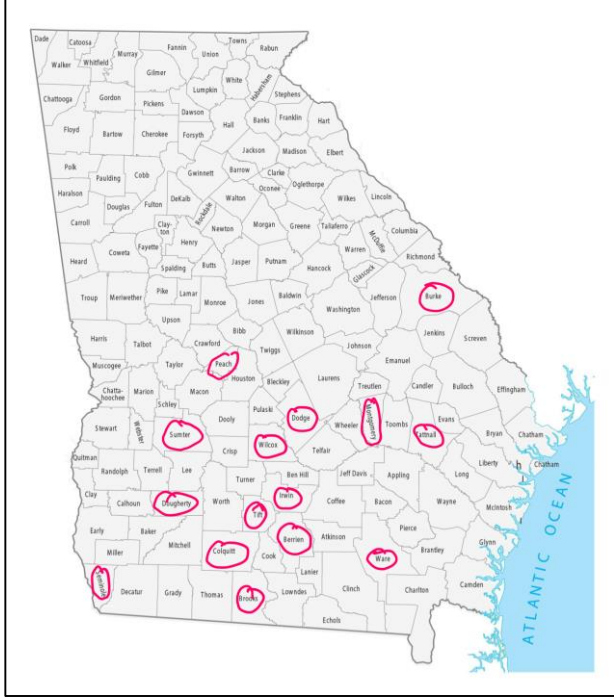
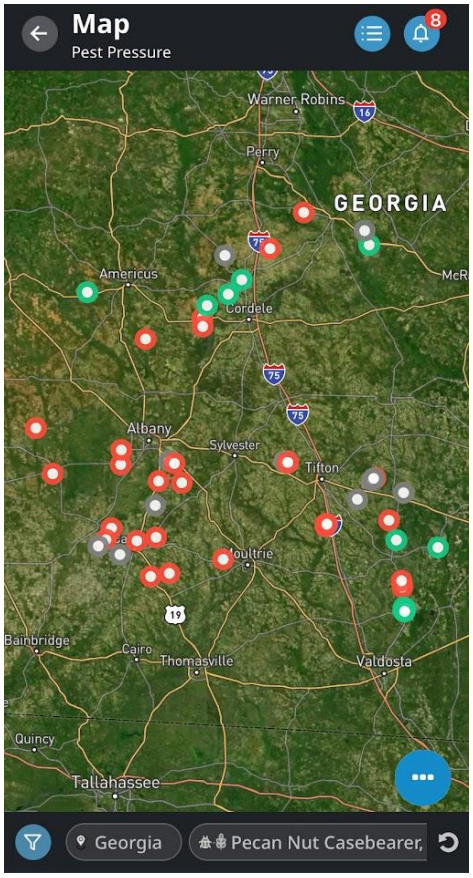
Pecan nut casebearer

- Egg laying occur in mid-May
- Monitor for adult emergence, timing is critical to target the immature (10-14 days following first capture)
- <u>During heavy crop load</u>, serve as a natural thinning mechanism
- Management options:
  - Intrepid, Intrepid Edge

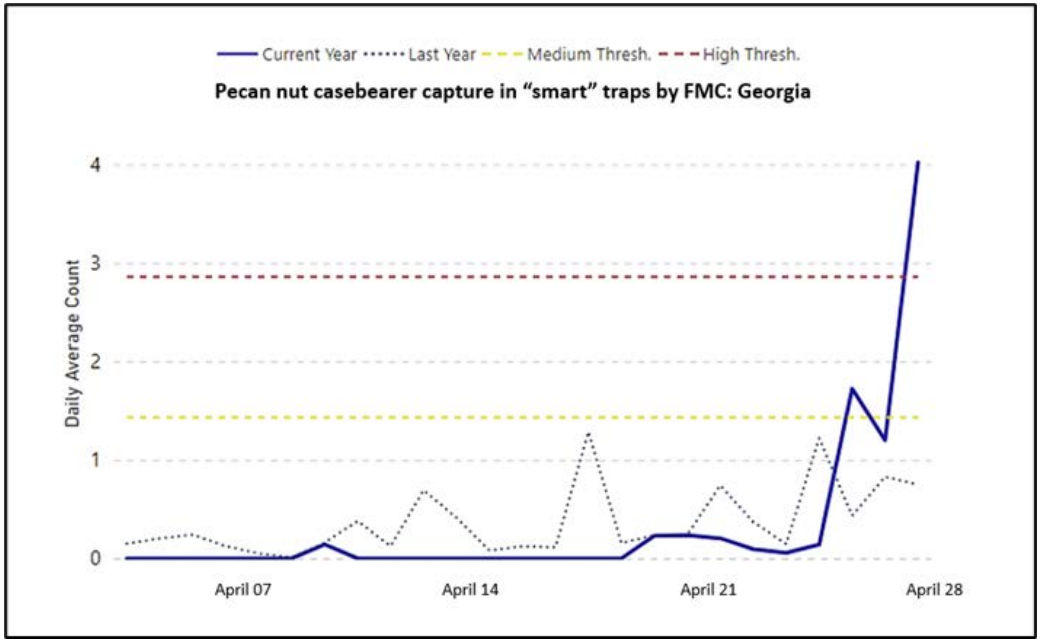
Pecan nut casebearer

- Multi-county PNC monitoring for BioFix program for 2024
- 10 counties represented: Berrien, Brooks, Ware, Wilcox, Montgomery, Tattnall, Burke, Houston, Colquitt, Sumter





https://pecan.agpestmonitor.org/



PNC population is higher in 2024 compared to 2023

Pecan aphids



- Back aphid feeding cause leaf yellowing (chlorosis), leading premature fall
- Early population can not establish well- ignore them in May or June

Efficacy of different insecticides: 2023

Treatment/Form.	Rate/acre
Untreated check/control	-
Carbine 50WG	2.4 oz[a]
Macho 2.0FL	2.8 fl oz
Movento 2SC	9.0 fl oz
PQZ 1.8SC	3.2 fl oz
Sefina 0.42DC	6.0 fl oz
Transform 50WG	1.25 oz[a]

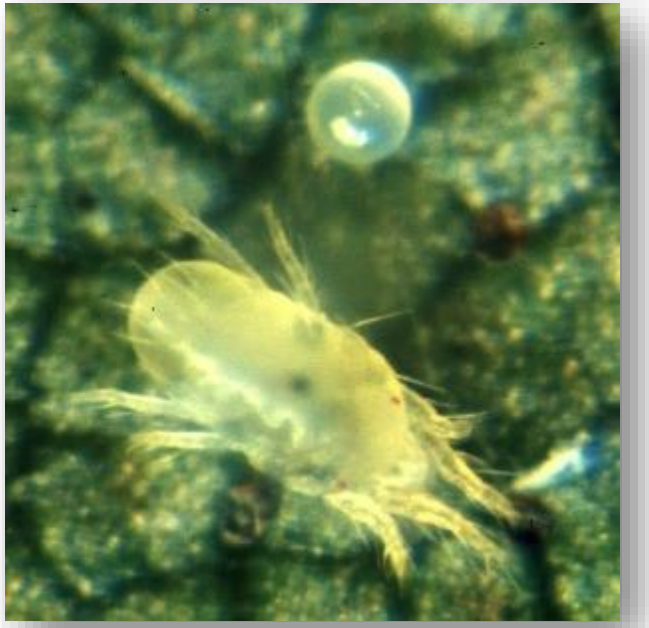
Aphid management

- Focus on black aphid control starting late July onwards
- Apply imidacloprid via drip in early/mid July
- Apply Pro Gibb 3 times, every 10 days, starting mid-July
- Foliar application: Transform, Carbine, Safina, PQZ
- Rotate chemistries if multiple applications needed
- Use Nexter late season if needed for black aphids when mites build up

Pecan Leaf Scorch Mite

- Make sure if this is mite or something else
- Mostly seen around August/September
- Favorable condition: dry and dust
- Found more in lower and inner canopy

- Abamectin (label)
- Acramite (24 oz)
- Envidor (18 oz)
- Nexter (7.5 - 17 oz)
- Magister (36 oz)
- Portal (2 pt)



Pecan leaf roll mite

Herbicide injury

Stink bugs and leaffooted bugs on pecan

- No treatment thresholds
- Difficulty in scouting large trees
- Late season damage
- Late season restrictions on insecticide applications (21 days REI for Bifenthrin)

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Bug pest management in pecan

- Active monitoring using nut sampling and trap method
- Be vigilant of the crops/vegetations around your orchards (harvesting of corn, cotton, soybean can increase migration)
- Most often infestations are on edges
- Bifenthrin and pyrethroid products are efficacious

Acknowledgements

- Pecan Growers
- UGA Pecan Team
- UGA County Agents