

# 2022 Pecan Insect Update



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# Chloropyfos (Lorsban)

- As of March 1<sup>st</sup>, EPA will revoke all food tolerances for Lorsban.
  1. A registered, legal application of chlorpyrifos prior to the date of tolerance revocation (six months after publication of the rule) should not provide any problem for growers. The day tolerances are revoked, any use (labeled or not) that results in a detectable residue would render your food adulterated. (Dr. Story Sparks)
  2. Normal loss of label provisions allow growers to stockpile and use existing stock according to label WILL NOT BE ALLOWED.
- Bearing vs. non-bearing trees
- We have other options for Chloropyfos label in pecan (Ants, budmoth, casebearer, black pecan aphid, gregarious caterpillars, prionous root borer)



# Insect Pests on Young Trees

JAN FEB MAR APR MAY JUN JULY AUG SEP OCT NOV DEC

Ambrosia Beetles



Budmoth



Shoot Borers

Caterpillars

May Beetles

Twig Girdlers

Twig Girdlers



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# AMBROSIA BEETLES

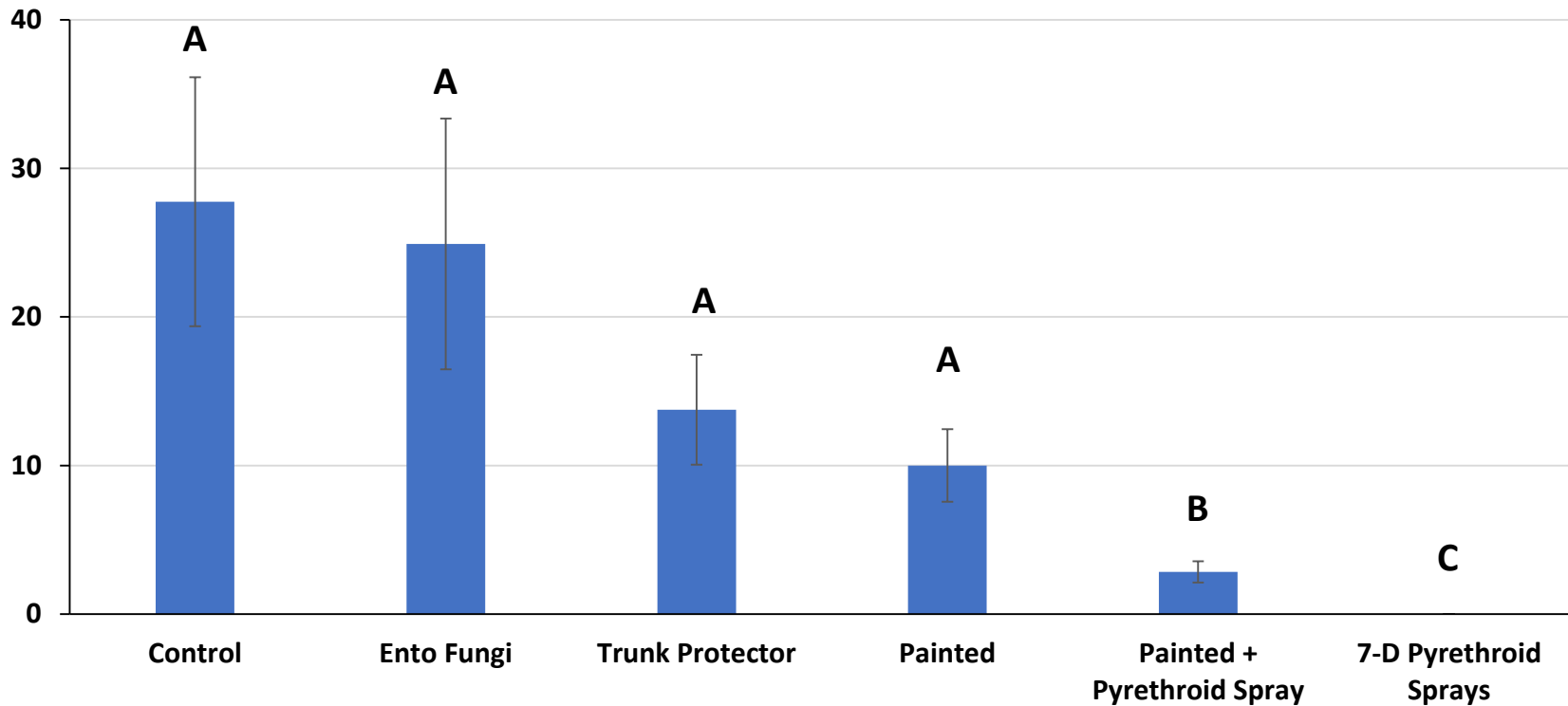


- Attack **stressed** trees: (transplanted, flooded conditions, frost damage)
- Trees can recover, but more attacks means more likely trees die
- Immediate action is vital in saving the tree



# 2021 Ambrosia Beetle Data

Attacks Per Log Per Week



# AMBROSIA BEETLE MONITORING



- Bolt of wood with a drilled hole in the middle
- Pour ethanol/denatured alcohol, into the hole
- Plug hole with cork
  - o Deploy traps along woodlines next to orchards by early Feb in south GA



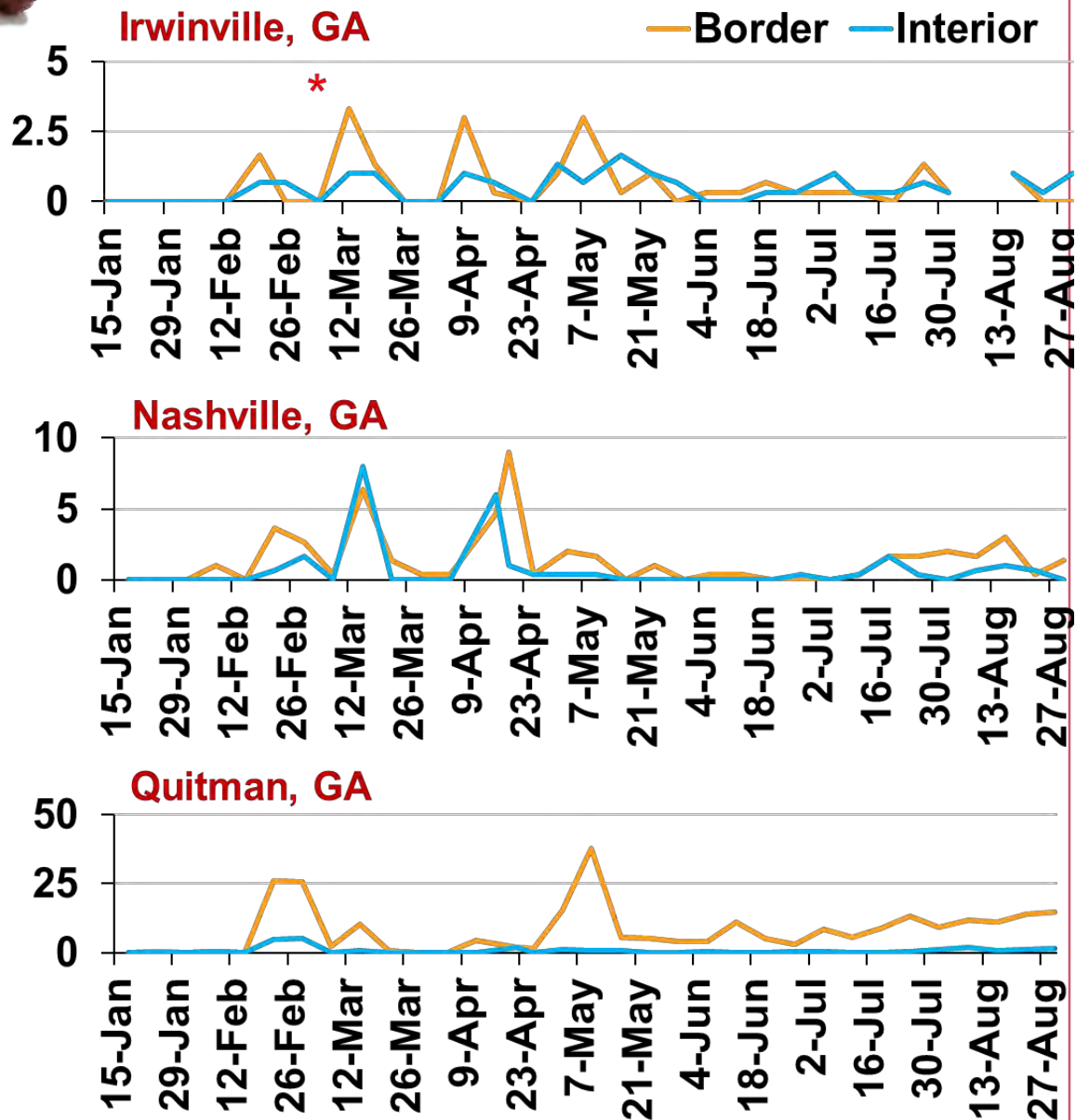


## Pecan Orchards

Beetle activity starts in early Feb.

Peak Beetle Activity:  
late Feb–mid March  
early April–mid May

Mean Ambrosia Beetles /Trap/Week



# Camphor Shot Borer





# Pecan Budmoth



## Biology

- 1) One month life cycle
- 2) 5 – 6 generations / year
- 3) Trees 1 – 3 years old

## 2021 Efficacy and Timing Trial

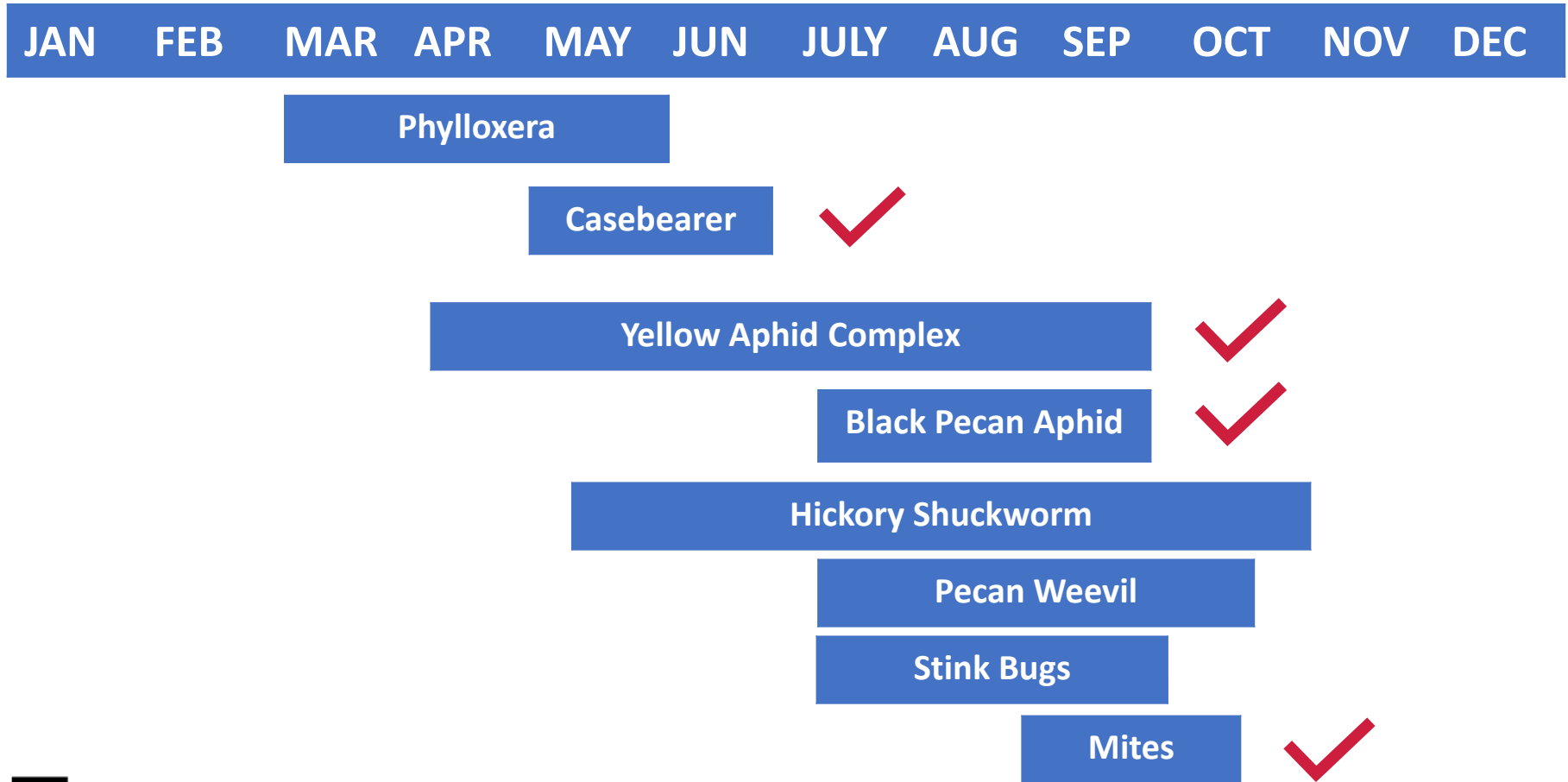
- Intrepid 2F
- Minecto Pro
- Movento
- Control

# Pecan Budmoth Summary

- 1) Spray at budbreak
- 2) Insecticides to use:
  - Intrepid 2F
  - Intrepid Edge
  - Minecto Pro
- 3) Spray once / month through June

Insecticide	Plant Uptake	Rate / 10 gallons
Intrepid 2F	Not absorbed into leaf; not translocated	1 oz
Intrepid Edge	Absorbed into leaf; not translocated	1 oz
Dimlin	Absorbed into leaf; not translocated	1.5 oz
Minecto Pro	Systemic	1.5 oz

# Insect Pests on Mature Trees



# Pecan Nut Casebearer

- Early to mid-May is when eggs are laid
- **During heavy crop load**, serve as a natural thinning mechanism
- Light infestations do not require control
- Management options:
  - Intrepid, Intrepid Edge and Dimilin
- Time application before larvae start feeding inside the nut (monitor for adult emergence)



# Yellow Aphid Complex



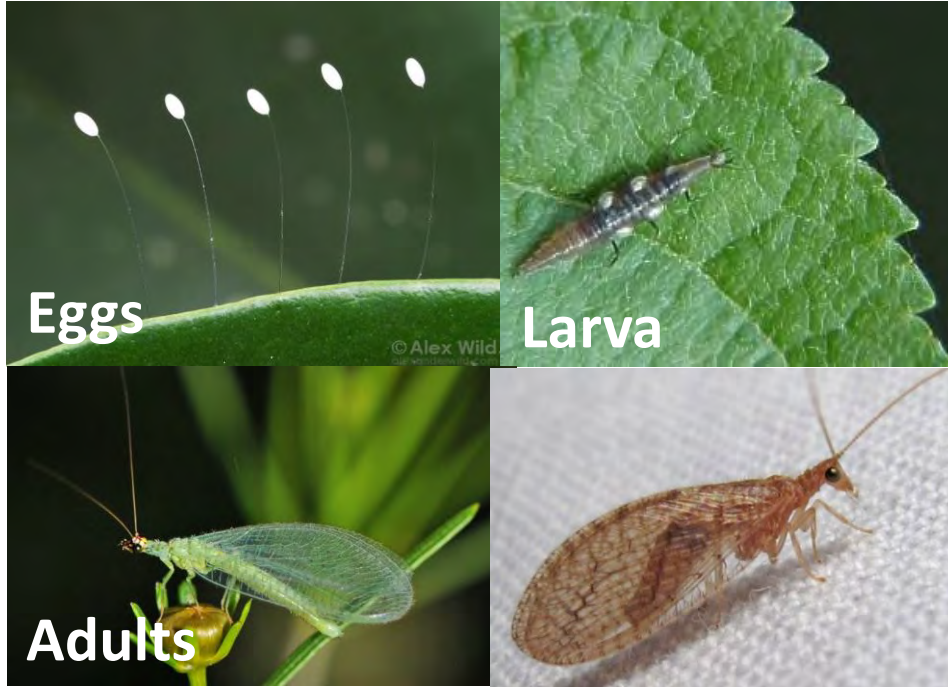
Yellow Pecan Aphid



Black Margined Aphid

# Common Predatory Insects

## Lacewing



## Lady Beetles



# Black Pecan Aphid



- Adults fly into orchard all season
- Feeding causes chlorosis and leaflets drop prematurely
- Threshold is 15% Of terminals with >1 OR presence of immatures
- Sumner, Gloria Grande, **Schley, Caddo.....**



# 2019 LATE-SEASON INSECTICIDAL TRIALS

## APHIDS

Yellow and Black Pecan Aphids:

Closer (2.75 oz/A), Carbine (2.8 oz/A)

Nexter (11 oz/A), PQZ (2.4 – 3.2 oz/A)

Sefina (3 – 6 oz/A)

**Rotate/Alternate  
materials to delay  
resistance development**

\* Different colors represent different mode of actions.



# Aphid Summary

1. **Don't use** any broad spectrum insecticides
2. Ignore yellow aphids
3. Ignore black aphids before June

## Sumner/Gloria Grande/Schley/Caddo

1. Apply imidacloprid via drip in early/mid June  
OR Pro Gibb 3x, every 10 days, starting July
2. If black aphids flare up in 3-4 wks, apply Closer, Carbine, PQZ, Safina -- *ROTATE*
3. Use *Nexter* late season if needed for black aphids when mites build



# Mites

- Mites are not usually a problem until around August/September
- THRESHOLD: When you start to see damage and there are 40-50 mites per leaflet, spray.
- CONTROL

Abamectin (label)

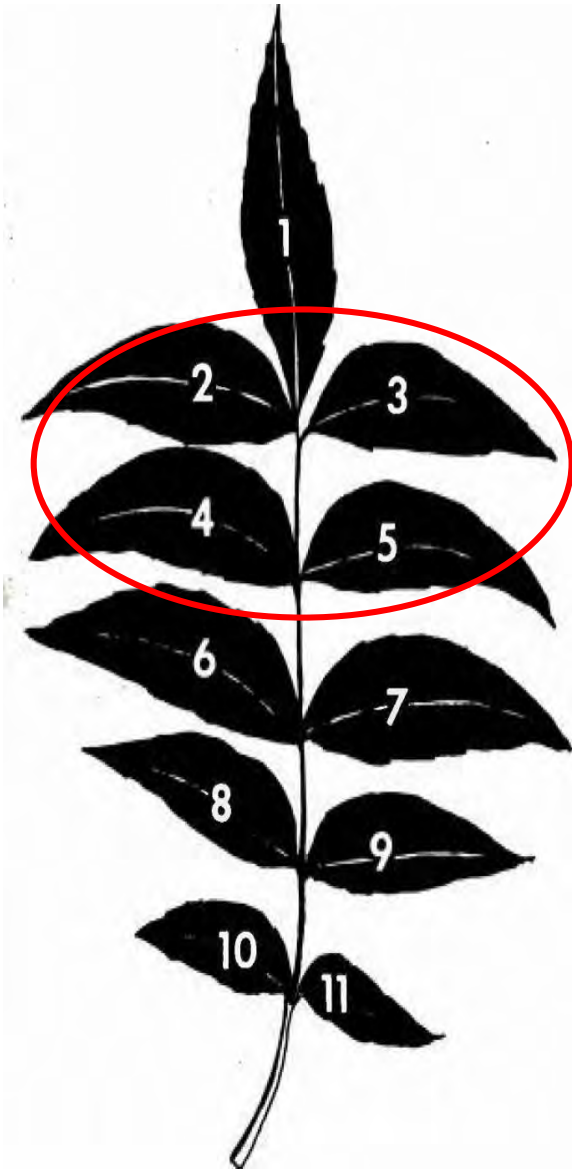
Acramite (24 oz)

Envidor (18 oz)

Nexter (11 oz)

Magister (36 oz)

Portal (2 pt)



# Hedging Trials



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# Hedging vs Thinning Project: Marshallville (~30-yr old Sumner Trees)



Dr. Angel Acebes



# Black Pecan Aphids

- In June and July, no black pecan aphids were found.
- No difference between hedging and thinning, but more black pecan aphids were found in the upper canopies of trees



# Yellow Aphid Complex

- In July and August, there are no interactions and no significant differences between canopy location and treatment.
- In June, there is an interaction between canopy location and treatment with the highest numbers found on the lower canopy of thinned trees.



# Pecan Leaf Scorch Mite

- In June and July, no PLSM were found in the leaf samples
- In August, the lower canopy had more PLSM than the upper canopy

# Nut Injury

- Of the nuts sampled in June, none had any evidence or damage from pecan nut casebearer
- Of the nuts sampled in July, no evidence of shuckworm or pecan nut casebearer was found
- No insect-related nut damage at harvest





# Acknowledgements

Pecan Growers  
Pecan Industry  
UGA Pecan Team  
UGA County Agents



Georgia  
Pecan  
Commodity  
Commission



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