

Tree Borers and Leafrollers in 2002



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Acknowledge

- James Frisby
- Mike Reding
- Carin Miller



Topics

- Mating Disruption of Greater Peachtree Borer (Crown Borer)
- Increase in Tree Borers in Northern Utah Orchards
- Leafrollers



Evaluation of Three
Consecutive Years of Mating
Disruption for Control of
Greater Peachtree Borer
(*Synanthedon exitiosa*) in
Peach



Greater Peachtree Borer (*Synanthedon exitiosa*)

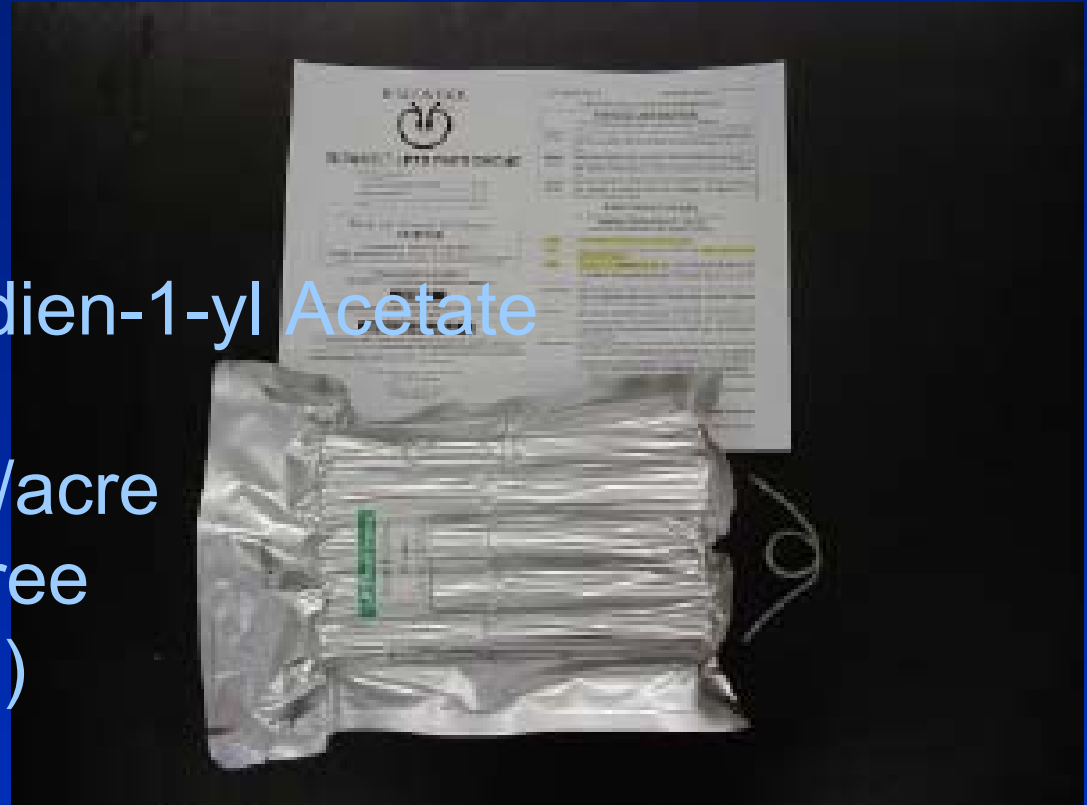
Objective: To demonstrate the efficacy of Isomate-P in small peach orchards for consecutive years

- Clear-wing Moth
- Univoltine
- Pheromone trap to set male biofix
- Prevent larvae from boring into lower trunk



Isomate-P


- Pacific Biocontrol
- 90% 3,13 Octadecadien-1-yl Acetate
- Rec. appl. rate:
100-250 dispensers/acre
- Study: 1 dispenser/tree
(155-175 disp./acre)
- Application Dates:
June 21-26, 2000-02
(within 4 d after biofix)




Kaysville Research Farm

Peach MD Blocks

Farm: 60 acres
Surrounded by
Homes with
Backyard Fruit
Trees

 MD-2 1 acre 'Red Haven'
Planted 1994
MD: 2000-02

 MD-1 1 acre 'Suncrest'
Planted 1990
MD: 2000-02

 MD-3

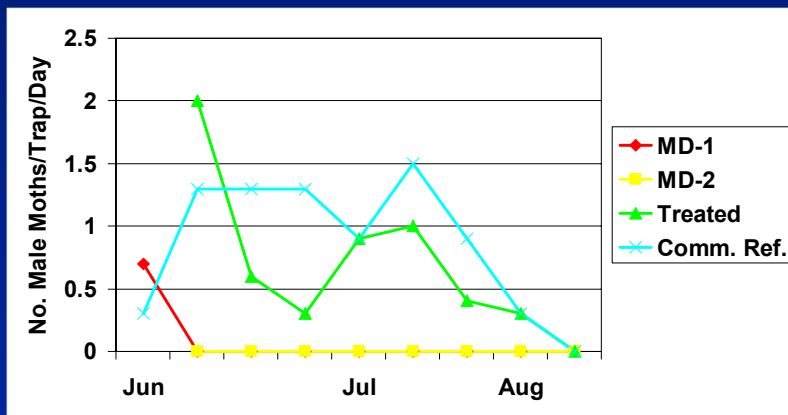
1.5 acre 'Elberta',
'Red Globe', 'Cresthaven'
Planted 1988
Insecticide Treated: 2000-01
MD: 2002

 MD-4

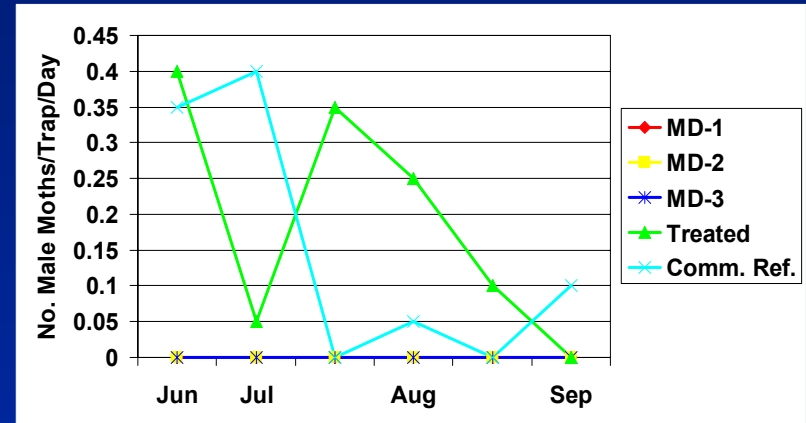
0.9 acre 'Red Haven'
Planted 2001
MD: 2001-02

GPTB Trap Catch

2000

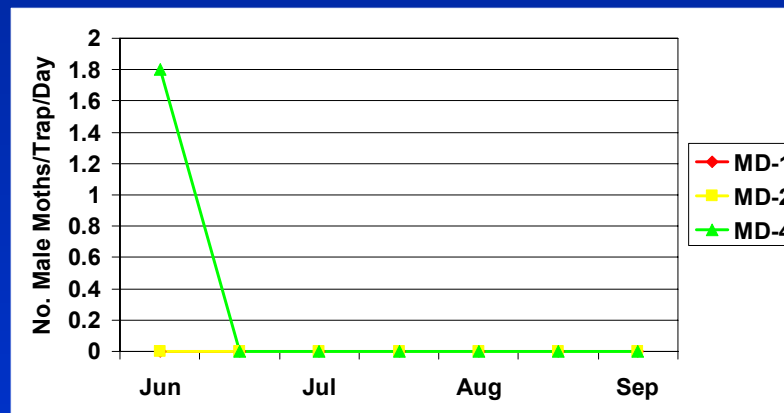


2001



2002

MD → Complete Trap Shut-Down



Assessing Injury



No GPTB Injury to
Trunks in Any Year,
2000-03

2002 Borer Observations

- Greater incidence of “other” borers
- These “other” borers are generally secondary pests



Flatheaded Borer (*Chrysobothris*)



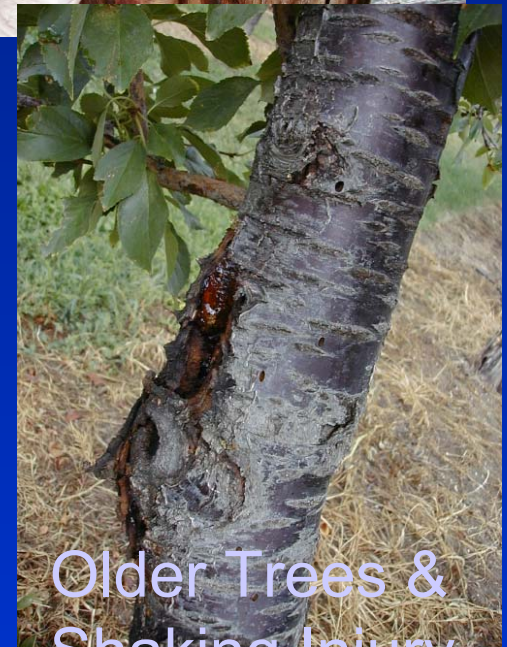
Girdling Injury



Beetle larva



Adult



Older Trees & Shaking Injury

American Plum Borer

Larvae bore into cambium



Moth adult



Cocoon under bark

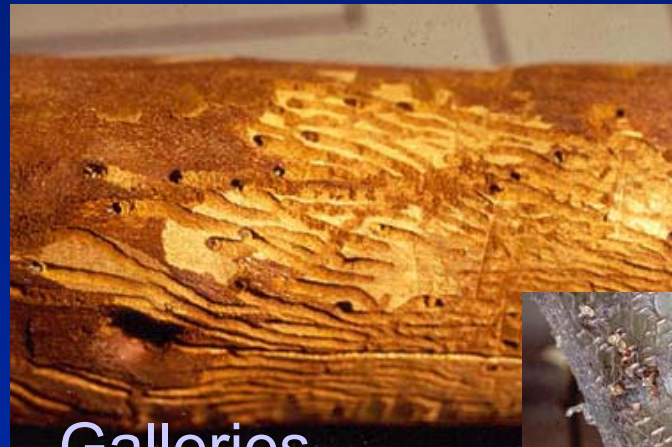


Trunk & limb injury

Shothole Borer



Shothole damage



Galleries



UC Statewide IPM Project
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Adult Beetle



Exude sap
from holes

UC Statewide IPM Project
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Why are borers on the increase?

- Source of insects (old, weakened, neglected trees, burn & firewood piles)
- Tree stress (drought, heat, winter injury)
- Newly planted orchard next to infested source especially susceptible

Borer Management

- Keep trees healthy & vigorous
- Remove & burn sources
- Do not plant new blocks next to sources
- Prevent trunk sunburn by painting trunks
- Keep weeds and debris away from base of trunks
- Insecticide treatment to prevent egg-laying
 - Flatheaded borer: June 1 & July 1 (Thiodan or Lorsban) to trunk and lower limbs
 - Shothole borer: April to May & August to September (Thiodan, Lorsban or Sevin)

Heads Up on Apple Leafrollers Obliquebanded and Pandemis

Reduced insecticide programs
Nearby sources



Leafroller Management



- Control overwintering larvae with delayed dormant spray (oil+Lorsban)
 - History of leafroller injury
- Pink to Petal Fall: *Bacillus thuringiensis* (Bt), Intrepid, Success, Esteem
 - Scout new leaf clusters for larvae
- Summer: Time sprays with peak moth flight (June, Aug), DD model

2002 Boxelder Bugs

- Influx into orchards (peach) at fruit ripening
- Feeding on fruit ?
- Nuisance problem – removal from fruit bins

