

URBAN TREE PESTS IN LOUISIANA

Emerald Ash Borer



PEST IDENTIFICATION

- Scientific name: *Agrilus planipennis*
- Origin: North-eastern Asia
- Life cycle: eggs, larvae, pupae (all inside tree), adults
- Eggs are laid in crack of the tree bark
- Larvae are creamy in color; feeds in inner tree bark
- Adults are metallic green; makes D-shaped holes in trees after emerging
- One year for 1 generation in LA (1.5-2 years in N. states)
- >\$10 billion of total economic losses to date

ACTIVE
out tree
April
May
June



ACTIVE
in tree
June
July
Aug
Sept
Nov



Adult and larvae of pest



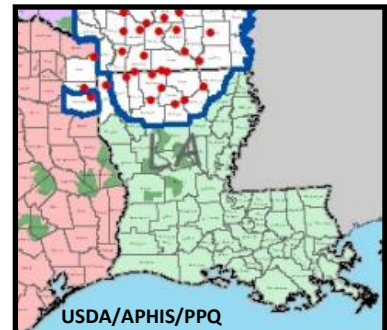
DESCRIPTION OF DAMAGE



S-galleries from larvae (left) and D-shaped holes from adults (right)

- Attack all North American ash trees; olive tree (new host report)
- Larvae feeds in S-shaped galleries; disrupt tree vascular system (xylem and phloem)
- Signs: Dieback of tree canopy and branches, epicormic shoots, woodpecker damage (feed on larva)
- Infested trees can die in 3-5 years

STATE DISTRIBUTION



Reported in 35 states in E. USA including Louisiana (red dots)



MANAGEMENT OPTIONS

Prevention:

- Landscape: Protect ash trees with systemic insecticides (spring)
- Monitor: Visual inspection for signs of pest; use of traps
- Quarantines: Do not transport firewood or other ash materials

Treatments: (follow label for rates, timing, safety)

- Remove infested trees by trained professionals, replant using non-host trees
- Chemical control is not recommended for large-scale area, or when >50% tree canopy is dead (too late to treat)
- Trunk injections with emamectin benzoate; spray basal trunk with dinotefuran
- Soil drench using imidacloprid or dinotefuran (in spring for better results)



Lure traps used to monitor pest adults



R. Diaz (LSU) checking traps

Biological control: Parasitoid wasps that attack pest eggs or larvae are being released in Louisiana

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