



Monitoring Borers in Nursery Production

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Benefits of monitoring insects:

- Determine when pests have emerged and entered the nursery
- Determine when the vulnerable life stage of pest is present
- If scouting begins only when the damage occurs, then it might be too late to prevent economic harm to plants.

Objective: Determine when clearwing borers are active in nurseries to time spray applications more accurately.

Wing traps, pheromone lures and ethanol lures obtained from www.greatlakesipm.com and ethanol traps were home made.

Apply pesticide to trunks and lower stems to avoid wasting chemical, killing beneficial insects, or causing outbreaks of secondary pests. Soil application has been less effective.

Common name	Trade name	REI	IRAC Mode of action group	Permitted applications
Permethrin	Astro, Perm-up	12 hr	3	Follow labels
Bifenthrin	Onyx, Talstar	label	3	Follow labels
Chlorantraniliprole	Acelepryn	4 hr	28	L
Cyfluthrin + Imidacloprid	Discus	12 hr	3 +4A	N
Dinotefuran	Safari	12 hr	4A	G, L, N
Imidacloprid	Merit, Marathon II	12 hr	4A	Follow labels

Borer	Principal hosts	Preferred location	No. of treatments	Calendar date	Timing of treatments
Granulate ambrosia beetle (GAB)	Styrax, maple, dogwood, others	Main trunk, lower scaffold	Every 3 weeks until first flush hardens	Mar 1-15	Phenological indicators not determined yet.
Lilac (LB)	Lilac, ash, privet	Lower trunk or main canes	1	April 1-15	Common lilac-1 week after full bloom Flowering dogwood—1 week after full bloom
Lesser peach tree (LPTB)	Peach, plum, flowering cherry	First and second order laterals	2	April 1-15, May 15-30	Kousa dogwood—2 weeks after 1st bloom Doublefile viburnum—1 week after full bloom
Flat headed apple tree (FHATB)	Crabs, Hawthorne, red maple	Lower trunk, stem wounds	2-3	April 15-30, June 1-15	Southern magnolia—1st bloom; Tree lilac—full bloom; Oakleaf hydrangea—full bloom
Dogwood (DB)	Flowering dogwood	Graft unions, wounds, first order laterals	1	April 15-April30	Flowering dogwood—1 month after full bloom Northern catalpa—1 week after 1st bloom
Peach tree (PTB)	Peach, plum, flowering cherry	Below 6" on main trunk and roots	2	May 15-May 30	Southern magnolia—2 weeks after 1st bloom Oakleaf hydrangea—1 week after full bloom
Banded ash (BAB)	Ash	Upper trunk and branches	1	Aug 1-Aug 15	Not listed.

Borers clockwise from left: Granulate ambrosia beetle, lilac, lesser peach tree, peach tree, dogwood, flat headed apple tree



GAB, FHATB, and PTB damage



Calendar dates above can vary every year. Follow Dr. Steve Frank on twitter @ornapests for first emergence, or spray 10-14 days after males are captured in traps.

