

Materials for Controlling *Asian Citrus Psyllid* (Carrier of Citrus Greening) in Home Landscapes, Gardens, & Non-Commercial Orchards

Asian Citrus Psyllid may infest a citrus tree throughout the year—Spring, Summer, Fall, Winter-- and may re-infest trees days, weeks or months after treatment with one of the products listed below. **Citrus growers should therefore monitor their trees regularly for the presence of ACP eggs, larvae, and adult insects.** Effective year-round control requires utilizing multiple control materials listed in this table. Horticultural oils, soaps, neem products, and kaolinite products may be used frequently to suppress the ACP population and prevent outbreaks. Insecticides like malathion, imidicloprid, bifenthrin and pyrethrum should be used judiciously and according to label recommendations to prevent development of insecticide-resistant psyllids. Imidicloprid is applied to the soil once per year (according to product label), and acts systemically for several weeks to prevent infestation of psyllids.

****Name-brand products listed below are not an endorsement, but rather a guide for ease of locating the correct material for ACP control. Other EPA-approved products with same active ingredient labeled for citrus trees bearing fruit may exist and would be acceptable.**

Asian Citrus Psyllid Control Materials**	Organic Status ^z	Life Stage Controlled	Rate	Notes
Imidicloprid (<i>Bayer Advanced™ Fruit-Citrus-Vegetable Insect Control</i>)	Not Organic	Adult, Nymph, systemic	Drench soil once per year, according to label, for prevention and control of ACP for extended periods.	Other imidicloprid products marketed by Bayer are not labeled for citrus trees bearing fruit. Best time to apply is post bloom as summer flushes commence
Bifenthrin (<i>Ortho® Bug-B-Gon Max</i> —liquid concentrate or ready-to-spray)	Not Organic	Adult, Nymph	Follow product label rates	Broad-spectrum, contact-killing insecticide with short residual activity. Product should not be overused; may lead to mite problems.
Pyrethrum (pyrethrins) (<i>Bayer Advanced Natria Insect, Disease & Mite Control</i> - contains sulfur also; <i>Pyganic Crop Protection 5.0 & Pyganic Crop Protection 1.4</i> ; <i>Safer Brand Yard & Garden Insect Killer</i> with soap and pyrethrins)	Organic (most products, depending on secondary ingredients)	Adult, Nymph	Follow product label rates	Broad-spectrum, contact-killing insecticide with very short residual activity. Product should not be overused; may lead to mite problems.
Malathion 50+% Various manufacturers	Not Organic	Adult, Nymph	Approx. 3-4 tsp/Gallon (Follow product label rates accurately)	Broad-spectrum, contact-killing garden insecticide with short residual activity.

See page 2 for additional options

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Azadirachtin concentrate (active ingredient in Neem spray products-various manufacturers); <i>applied like an insecticide.</i>	Organic (most products, depending on secondary ingredients)	Repellant; suppression of psyllid population buildup. (Some curative or knockdown properties); very short residual	Follow label rates	Use in combination with other products, such as horticultural oils, insecticidal soaps or citrus peel oil products like <i>Citri-King</i> or <i>Oro-Boost</i> (active ingredient-alcohol ethoxylate).
Clarified hydrophobic extract of Neem Oil (Trilogy, other manufacturers)	Organic	Egg and nymph-effective. Adult —suppression only.	Follow label rates (0.5% to 2.0% solution in water or ½ to 2 oz/Gal. of water.	Usage similar to horticultural oils and insecticidal soaps. Thorough coverage of tree needed.
Horticultural petroleum oils—“Ultra-fine”/412 class (<i>Sunspray Ultrafine, Saf-T-Side, several others</i>)	Organic	Egg, Nymph, (Adult-suppression only)	1 to 2.5 oz/Gal of water (1% to 2.5% v/v). Use higher rates for heavy infestation situations	Apply thoroughly to well-watered plants at air temperatures below 95 °F. Can be applied during early bloom, but do not apply during late bloom/early fruit set period which may increase fruit abortion.
Soaps and insecticidal soaps (<i>Safer[®] Brand Insecticidal Soap, several others</i>)	Organic	Nymph, adult	Approximately 1-2.5% rate (1-2.5 oz liquid hand or dish detergent/Gal. of water. For commercial insecticidal soaps, follow label rates.	Soap sprays require good coverage throughout the plant for effective control. Apply to plants that are well watered and at temperatures below 95 °F.
Kaolinite clay suspensions (<i>Surround[®] Crop Protectant</i>)	Organic	Repellant	½ pound/Gal. of water	Must be re-applied after wash-off from rain or irrigation occurs

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^z“Organic” means generally considered an organic/low toxicity control material. Approval for *USDA-Certified Organic* status or “OMRI-approved” is not implied and should be verified independently.

- Always follow the product label guidelines for mixing, handling, disposal, timing of application, preharvest interval, etc!

For assistance with proper identification of Asian Citrus Psyllids, control product selection, mixing, or application of insecticides, contact your County A&M Agrilife Extension office: <http://agrilifeextension.tamu.edu>