

2026–2027 Florida Citrus Production Guide: Citrus Leafminer¹

Lauren M. Diepenbrock, Xavier Martini, Jawwad Qureshi, and Lukasz Stelinski²

Recommended Chemical Controls for Citrus Leafminer (CLM)

READ THE LABEL!

Some product labels specify rates per acre, while others specify rates per volume delivered (e.g., per 100 gal). Refer to the label for details on how product should be mixed for desired targets.

Rates for pesticides are given as the maximum amount required to treat mature citrus trees unless otherwise noted. When treating smaller trees with commercial application equipment including handguns, mix the per-acre rate for mature trees in 100 gal of water. Calibrate and arrange nozzles to deliver thorough distribution and treat as many acres as this volume of spray allows.

Table 1. Recommended chemical controls for citrus leafminer.

IRAC MOA ¹	Pesticide Trade Name	Rate/Acre ²	Comments	Other Pests Controlled
4A	Clothianidin (soil drench)			
	Belay 50 WDG	3.2–6.4 oz	For use on nonbearing trees only. Do not apply within 1 year of fruit harvest. Do not exceed 12.8 oz/acre (0.4 lb a.i./acre). Do not apply this product to blooming, pollen-shedding, or nectar-producing parts of plants if bees may forage on the plants during this time period.	Asian citrus psyllid, aphids
	Imidacloprid (soil drench)			
	Various products, 2F, 4F, and 4.6F		Limit of 0.5 lb a.i./acre per growing season regardless of application type (soil or foliar) and trade name of imidacloprid product used.	Asian citrus psyllid, aphids, scales
	Thiamethoxam (soil drench)			
	Platinum 75 SG	1.83–3.67 oz	Do not exceed a total of 3.67 oz/acre (0.172 lb a.i./acre) per growing season. Do not apply during prebloom or during bloom when bees are actively foraging.	Asian citrus psyllid, aphids, scales
5	Spinetoram			
	Delegate WG + horticultural mineral oil 97+% (FC 435-66, FC 455-88, or 470 oil)	6 oz + 2% v/v	Do not apply more than 12 oz/acre in a growing season. Do not make more than 3 applications in a growing season. Do not apply within 7 days of last treatment.	Asian citrus psyllid, orange dog, thrips
	Spinosad			
	Entrust	1.25–6 oz	Recommended to include 2% horticultural mineral oil. Approved for organics.	Orange dog, thrips
6	Abamectin			
	Various 0.15 EC products	5 fl oz	Always apply with a minimum of 1 gal horticultural mineral oil 97+% (FC 435-66, FC 455-88, or 470 oil). Do not apply any abamectin-containing product, (1) within 30 days of last treatment, (2) more than 3 times in any one growing season, or (3) more than 0.47 lb a.i./acre in a growing season. Do not apply in citrus nurseries.	Citrus rust mite, Asian citrus psyllid at higher rates
	Agri-Mek SC	1 fl oz	Always apply with a minimum of 1 gal horticultural mineral oil 97+% (FC 435-66, FC 455-88, or 470 oil). Do not apply any abamectin-containing product, (1) within 30 days of last treatment, (2) more than 3 times in any one growing season, or (3) more than 0.47 lb a.i./acre in a growing season. Do not apply in citrus nurseries.	Citrus rust mite, Asian citrus psyllid at higher rates
15	Diflubenzuron			
	Micromite 80 WGS	6.25 oz	Do not apply more than 3 applications per season. See restrictions on label. Do not apply when temperatures exceed 94°F. Recommended to apply with 2% horticultural mineral oil.	Citrus root weevils, citrus rust mites, citrus psyllids

IRAC MOA ¹	Pesticide Trade Name	Rate/Acre ²	Comments	Other Pests Controlled
18	Methoxyfenozide			
	Intrepid 2 F	8 fl oz	Do not apply more than 16 fl oz/acre per application or 64 fl oz/acre per season. Do not apply within 14 days of last application. No bloom restriction. Recommended to apply with 2% horticultural mineral oil.	Orange dog
28	Cyantraniliprole (foliar application)			
	Exirel	16 fl oz + 1% v/v	Do not apply a total of more than 0.4 lb a.i./acre of Cyazypyr or cyantraniliprole-containing products per year. Recommended to apply with 2% horticultural mineral oil. See label for bloom restrictions.	Asian citrus psyllid, orange dog
	Cyantraniliprole (soil application)			
	Verimark	15–30 fl oz	Use the lower rate for trees 3 ft or less in height.	Asian citrus psyllid, orange dog
	Chlorantraniliprole			
	Altacor	3–4.5 oz	No more than 3 applications per season. Not more than 9 oz or 0.2 lb a.i./acre per year. Minimum treatment interval 7 days.	Orange dog
	Thiamethoxam + Chlorantraniliprole			
	Voliam Flexi	7 oz	Always apply with a minimum of 1 gal horticultural mineral oil 97+% (FC 435-66, FC 455-88, or 470 oil). Do not exceed 14 oz/acre (0.172 lb a.i./acre) per growing season. Do not apply during prebloom or during bloom when bees are actively foraging.	Aphids, citrus psyllids
4A + 6	Thiamethoxam + Abamectin			
	Agri-Flex	8.5 fl oz + 2% v/v	Do not exceed a total of 17 fl oz/acre or 3 applications per season of Agri-Flex or 0.172 lb a.i./acre of any thiamethoxam-containing products or 0.047 lb a.i./acre of abamectin-containing products per growing season. Must be mixed with a minimum of 0.2 percent oil. Do not apply during prebloom or during bloom when bees are actively foraging.	Aphids, citrus leafminer, citrus rust mites
30	Zivalgo	1.6 fl oz	Apply this product diluted in a minimum volume of 30 gal per acre. Do not apply 3 days prior to, and until the end of the flowering period. No more than 7.2 fl oz per acre per year.	Asian citrus psyllids, citrus rust mites, spider mites, thrips
UN ³	Horticultural Mineral Oil			
	97+% (FC 435-66, FC 455-88, or 470 oil) NR3	5 gal	Do not apply when temperatures exceed 94°F. 470-weight oil has not been evaluated for effects on fruit coloring or ripening. These oils are more likely to be phytotoxic than lighter oils.	Asian citrus psyllid, aphids, mites, scales

¹ Mode of action class for citrus pesticides from the Insecticide Resistance Action Committee (IRAC) Mode of Action Classification v. 11.4 (2025).

² Lower rates may be used on smaller trees. Do not use less than the minimum label rate.

³ Mode of action unknown. No resistance potential exists for these products.

¹ This document is CG105, one of a series of the Department of Entomology and Nematology, UF/IFAS Extension. Original publication date August 2026. Revised annually. Visit the Ask IFAS website at <https://ask.ifas.ufl.edu> for the currently supported version of this publication. © 2026 UF/IFAS. This publication is licensed under [CC BY-NC-ND 4.0](#).

² Lauren M. Diepenbrock, associate professor, integrated pest management and insect ecology, Department of Entomology and Nematology, UF/IFAS Citrus Research and Education Center, Lake Alfred, FL; Xavier Martini, associate professor, insect behavior, Department of Entomology and Nematology, UF/IFAS North Florida Research and Education Center, Quincy, FL; Jawwad Qureshi, professor, Department of Entomology and Nematology, UF/IFAS Southwest Florida Research and Education Center, Immokalee, FL; Lukasz Stelinski, professor, Department of Entomology and Nematology, UF/IFAS Citrus Research and Education Center; UF/IFAS Extension, Gainesville, FL 32611.

The use of trade names in this publication is solely for the purpose of providing specific information. UF/IFAS does not guarantee or warranty the products named, and references to them in this publication do not signify our approval to the exclusion of other products of suitable composition.

Use pesticides safely. Read and follow directions on the manufacturer's label.

The Institute of Food and Agricultural Sciences (IFAS) is an Equal Opportunity Institution authorized to provide research, educational information, and other services only to individuals and institutions that operate in compliance with applicable federal and state non-discrimination laws and policies. For more information on obtaining other UF/IFAS Extension publications, contact your county's UF/IFAS Extension office. U.S. Department of Agriculture, UF/IFAS Extension Service, University of Florida, IFAS, Florida A&M University Cooperative Extension Program, and Boards of County Commissioners Cooperating. Andra Johnson, Dean for UF/IFAS Extension.