

2026–2027 Florida Citrus Production Guide: Rust Mites, Spider Mites, and Other Phytophagous Mites¹

Jawwad Qureshi, Lukasz Stelinski, Xavier Martini, and Lauren M. Diepenbrock²

Recommended Chemical Controls for Mites

READ THE LABEL.

See Table 3.

Rates for pesticides are given as the maximum amount required to treat mature citrus trees unless otherwise noted. To treat smaller trees with commercial application equipment including handguns, mix the per-acre rate for mature trees in 250 gal of water. Calibrate and arrange nozzles to deliver thorough distribution, and treat as many acres as this volume of spray allows.

TO MINIMIZE RISK OF RESISTANCE, DO NOT APPLY A SPECIFIC MITICIDE OTHER THAN PETROLEUM OIL MORE THAN ONCE PER ACRE PER SEASON.

Table 1. Control thresholds and appropriate sample sizes for 10 acres.

If the control threshold is:	Sample Size (Sample trees should be uniformly scattered across a 10-acre block. Do not sample adjacent trees.)
5 mites/leaf	Examine 4 leaves/tree from 6 trees/area from 4 areas/10 acres = 96 leaves on 24 trees/10 acres
8 mites/leaf	Examine 4 leaves/tree from 6 trees/area from 3 areas/10 acres = 72 leaves on 18 trees/10 acres
10 mites/leaf	Examine 4 leaves/tree from 5 trees/area from 2 areas/10 acres = 40 leaves on 10 trees/10 acres
15 mites/leaf	Examine 4 leaves/tree from 4 trees/area from 2 areas/10 acres = 32 leaves on 8 trees/10 acres

Table 2. Citrus miticide selection.*

Supplemental (Early Spring)	Postbloom	Summer	Fall	Supplemental Fall
--	--	Agri-Mek + oil	--	--
Apta	Apta	--	Apta	Apta
--	--	--	Comite	Comite
Envidor	Envidor	Envidor	Envidor	Envidor
--	Petroleum oil	Petroleum oil	Petroleum oil	--
--	--	--	Sulfur	Sulfur
--	--	Micromite	Micromite	--
--	--	--	Nexter	Nexter
Movento	Movento	Movento	--	--
Vendex	Vendex	--	Vendex	Vendex

*Except for petroleum oil, do not use the same miticide chemistry more than once a year.

Table 3. Recommended chemical controls for mites.

IRAC MOA ¹	Pesticide Trade Name	Rate/Acre ²	Comments	Pests Controlled
6	Abamectin			
	Agri-Mek 0.15 EC + Petroleum Oil 97+% (FC 435-66, FC 455-88, or 470 oil)	5–10 fl oz + min of 3 gal	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 0.047 lb a.i./acre in a growing season. Do not apply in citrus nurseries.	Rust mites, broad mites, citrus leafminer, Asian citrus psyllids at higher rates.
12B	Fenbutatin-oxide			
	Vendex 50 WP	2 lb	Restricted use pesticide. Tank-mixing with oil or copper results in reduced residual activity. Do not apply at rates greater than 20 oz/500 gal to fruit less than one inch in diameter within 10 days of an oil spray.	Rust mites, spider mites

IRAC MOA ¹	Pesticide Trade Name	Rate/Acre ²	Comments	Pests Controlled
12C	Propargite			
	Comite 6.55 EC	3 pt	Leaf distortion or fruit spotting may occur when used in the spring or if tank-mixed with oil or applied within 2 weeks prior to or following an oil application. Do not use in spray solution above pH 10.	Rust mites, spider mites
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.	Rust mites , citrus root weevils, Asian citrus psyllids
21	Pyridaben			
	Nexter 75 WP	6.6 oz	Tank-mixing with oil or copper results in reduced residual activity.	Spider mites , false spider mites, rust mites
21A	Tolfenpyrad			
	Apta	14–27 fl oz	Do not apply by air. Do not apply more than 27 oz/acre per growing season. Do not make more than 2 applications per year. Allow at least 14 days between applications.	Citrus rust mite, spider mites (higher rates) , Asian citrus psyllids
23	Spirodiclofen			
	Envidor 2 SC	13–20 oz	Limit to one application per season. Use 20 oz rate if tank-mixing with oil. Tank-mixing with oil results in reduced residual activity.	Rust mites, spider mites
	Spirotetramat			
	Movento 240	10 fl oz	Do not make more than one application during primary citrus bloom period. Recommended to be applied in 2% horticultural mineral oil. Limit of 0.32 lb a.i./acre per 12 months. Minimum interval of 21 days between applications.	Citrus rust mites , Asian citrus psyllid nymphs, aphids, mealybugs, scale insects, whiteflies
	Movento MPC	16 fl oz	Do not apply within 10 days prior to bloom, during bloom, or until petal fall is complete. Recommended to be applied in 2% horticultural mineral oil. Limit of 0.32 lb a.i./acre per 12 months. Minimum interval of 21 days between applications.	
UN ³	Petroleum Oil 97+% (FC 435-66, FC 455-88 or 470 oil)	2% v/v	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.	Rust mites, spider mites , scales, whiteflies, greasy spot, sooty mold
	Sulfur		Limit to 1 application per season where supplemental rust mite control is needed between main sprays. Do not combine with oil or apply within 3 weeks of oil, because fruit burn may result. May cause eye irritation to applicators and fruit harvesters.	Rust mites, broad mites (Kumulus, Thiolux, and Microthiol only)
	Kumulus 80 DF	15 lb		
	Microthiol 80 DF	15 lb		
	Thiolux 80 DF	15 lb		

IRAC MOA ¹	Pesticide Trade Name	Rate/Acre ²	Comments	Pests Controlled
	Wettable powder or dust	50 lb		
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.				

¹ This document is CG106, 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 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; Xavier Martini, associate professor, insect behavior, Department of Entomology and Nematology, UF/IFAS North Florida Research and Education Center, Quincy, FL; 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; UF/IFAS Extension, Gainesville, FL 32611.

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

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