

Quick Reference Guide to Citrus Insecticides and Miticides

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Products recommended in the Florida Citrus Pest Management Guide and their effects on selected pests and their natural enemies.

Pesticide active ingredient	Target pest								Effects on natural enemies
	Mode of Action ¹	Psyllid	Leafminer	Rust Mites	Spider Mites	Root Weevil Adults	Scale Insects	Mealybugs	
Abamectin + oil	6	++	+++ _R	+++ _R	+	+(oil)	+(oil)	+(oil)	medium
Acetamiprid	4	-	+++ _R	-	-	?	+	++	medium
Aldicarb	1A	+++ _R	-	+++ _R	+++	-	-	-	low
Carbaryl	1A	+++ _R	-	+	-	+++ _R	+++ _R	+	high
Chlorpyrifos	1B	+++ _R	+	+	-	+	+++ _R	+++ _R	high
Diflubenzuron	15	++	+++ _R	+++ _R	-	+++ _R	-	-	low
Dimethoate	1B	+++	-	-	-	?	+++ _R	+	high
Fenbutatin oxide	12	-	-	+++ _R	+++ _R	-	-	-	low
Fenpropathrin	3	+++ _R	-	+	+	+++ _R	-	+	high
Imidacloprid (soil application, nonbearing)	4	+++ _R	+++ _R	-	-	+	++	+	low
Imidacloprid (foliar application)	4	+++ _R	+	-	-	-	++	+	medium
Petroleum oil	NR	+	++ _R	++ _R	++	+(eggs)	++ _R	+	low
Phosmet	1B	+++ _R	-	+	?	+++ _R	?	?	medium/high
Pyridaben	21	-	?	+++ _R	+++ _R	-	-	-	high
Spinosad	5	-	+++ _R	-	-	-	-	-	low
Spinetoram	5	+++ _R	+++ _R	-	?	?	?	?	low
Spirodiclofen	23	-	-	+++ _R	+++ _R	?	-	-	low
Spirotetramat	23	+++ _R	-	+++ _R	?	?	++	?	low
Sulfur	NR	-	-	+++ _R	+++	-	?	?	high (short term)
Zeta-cypermethrin	3	+++ _R	-	-	?	+++	?	?	high

¹Mode of action class for citrus pesticides from the Insecticide Resistance Action Committee; NR = no resistance potential

(R) = product recommended for control of pest in Florida Citrus Pest Management Guide

(+++)= good control of pest

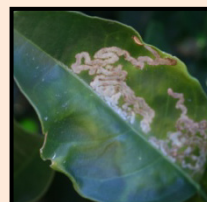
(++)= short-term control of pest

(+)= low levels of pest suppression

(-)= no observed control of pest

(?)= insufficient data available

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Imidacloprid soil drench rates for solid plantings of nonbearing citrus

Tree Height	Rate Product/A*	Applications per season	Ounces per tree	Trees per ounce
Imidacloprid 2F (Admire and various generic products)				
2 ft – 4 ft	8 fl oz	4	0.057 fl oz	17.5 trees
4 ft – 6 ft	16 fl oz	2	0.114 fl oz	8.77 trees
Imidacloprid 4.6F (Admire PRO)				
2 ft – 4 ft	3.5 fl oz	4	0.025 fl oz	40 trees
4 ft – 6 ft	7 fl oz	2	0.05 fl oz	20 trees
<i>*Rates based on 140 trees per acre</i>				

Restricted Entry Interval (REI) and Pre-Harvest Interval (PHI) for products listed on front page

Active Ingredient	Product brand names*	Restricted entry interval (REI)	Pre-harvest interval (PHI)
Abamectin	Agri-mek 0.15EC	12 hours	7 days
Acetamiprid	Assail 70 WP	12 hours	7 days
Aldicarb	Temik 15G	48 hours	0; 30 days lemons
Carbaryl	Sevin XLR Plus	12 hours	5 days
Chlorpyrifos	Lorsban 4 E	5 days	21 days
Diflubenzuron	Micromite 80 WGS	12 hours	21 days
Dimethoate	Dimethoate 4 E	48 hours	15 days
Fenbutatin oxide	Vendex 50 WP	48 hours	7 days
Fenpropathrin	Danitol 2.4 EC	24 hours	1 day
Imidacloprid	Admire Pro 4.6 F, Provado 1.6 F	12 hours	0
Phosmet	Imidan 70 W	24 hours	7 days
Pyridaben	Nexter miticide	12 hours	7 days
Spinosad	Spintor 2 SC	4 hours	1 day
Spinetoram	Delegate WG	4 hours	1 day
Spirodiclofen	Envidor 2 SC	12 hours	7 days
Spirotetramat	Movento 240 SC	24 hours	1 day
Sulfur	various	12 hours	0
Zeta-cypermethrin	Mustang 1.5 EW, Mustang Max EC	12 hours	1 day
<i>*Additional generic brand names may be available for a given active ingredient. Use pesticides safely. Read and follow directions on the manufacturer's label.</i>			

Additional citrus pest management information can be found in the Florida Citrus Pest Management Guide available online at <http://www.crec.ifas.ufl.edu/extension/pest/index.htm>