



EFFICACY AGAINST SPECIFIC CITRUS PESTS

(+++ = excellent control; ++ = good control; + = some help; Blank = not determined)





IMPORTANT: READ ALL PESTICIDE LABELS CAREFULLY



PESTICIDE BRAND NAME	ACTIVE INGREDIENT (IRAC-MOA)	RATE/ ACRE	REI (hr)	PHI (d)	MAXIMUM RATE/YR	RUST MITES	SPIDER MITES (Red & TX citrus)	ARMORED SCALES	SOFT SCALES	CITRUS LEAF-MINER	CITRUS PSYLLID	BLACK/ WHITE FLIES	THRIPS	ROOT WEEVILS	ANTS	APHIDS	MEALY-BUG	LEAF-HOPPERS/ SHARP-SHOOTER	Effects on Natural Enemies	
					Amount															
ADMIRE PRO	Imidacloprid (4A)	7 -14 oz	12	0	14 oz*															Low
		3.5-7 oz	12	0	14 oz															
ACTARA 25 WG	Thiamethoxam (4A)	3 – 5.5 oz	12	0	11 oz															Moderate
AGRI-FLEX	Abamectin/Thiamethoxam (6, 4A)	5.5 – 8.5 oz	12	7	17 oz (3)	++	+	++	++	+++	+++	++	+	+	+	++	++	++	++	Moderate
AGRIMEK SC	Abamectin (6)	1 – 4.25 oz	12	7	8.5 oz (3)	+++	++			++	++		++							Moderate
APTA	Tolfenpyrad (21A)	14 - 27 oz	12	14	27 oz (1)	++	++		++	++	++		++	+		++	++			Moderate
ASSAIL 30SG	Acetamiprid (4A)	2.5 – 10.3 oz	12	7	29.3 oz			++	+	++			++			++	++	++		Moderate
BAYTHROID XL	Beta-Cyfluthrin (3)	1.6 – 6.4 oz	12	0	6.4 oz (2)						+++		++	+++						High
CENTAUR WDG	Buprofezin (16)	34.5 - 46 oz	12	3	92 oz (2)			++	++			+					++	++		Moderate
COMITE	Propargite (12C)	32 – 48 oz	480	21	80 oz (2)	+++	+++													High
DANITOL 2.4 EC	Fenpropathrin (3)	16 – 21-1/3	24	1	42-2/3 oz	++	++				+++	++	+++	++					++	High
DELEGATE WG	Spinoteram (5)	3 - 6 oz	4	1	12 oz (3)					+++	++		+++							Low
DIMETHOATE 4E	Dimethoate (1B)	½ - 2 pt	48	15-45	(2)		++	++	++		+++	+++	+++			+++				High
ENVIDOR 2 SC	Spirodiclofen (23)	12 - 20 oz	12	7	20 oz (1)	+++	+++													Low
ESTEEM 0.86 EC/KNACK	Pyriproxyfen (7C)	10 - 16 oz	12	1	26 oz			+++	+++	++		+++								Moderate
LEVERAGE 360 ^{24C} Label	B-Cyfluthrin /Imidacloprid (3, 4A)	6.4 oz	12	0	6.4 oz			+++	+++	+++	+++	+++		++		+++	++	+++		High
LORSBAN ADVANCED	Chlorpyrifos (1B)	2 - 12 pt	120	21-35	16 pt (2)	++		+++	+++	+	+++	+	++		++	+++	+++	+++		High
MALATHION 57 EC	Malathion (1B)	2.4-7.2 pt	12	7	7.2 (1-3)			+	++		+	+	+			+	+	+		High
MICROMITE 80 WGS	Diflubenzuron (15)	6.25 oz	12	21	18.75 oz	++				++	++			++						Low
MINECTO PRO	Abamectin(6) / Cyantraniliprole(28)	8–12 oz	12	7	24 oz	+++	+++			+++	+++					++				Moderate
MOVENTO	Spirotetramat (23)	8 –10 oz	24	1	20 oz	+		++	++	++	++	+	+			++	++			Low
MUSTANG	Zeta-cypermethrin (3)	4.3 oz	12	1	17.2 oz					+	++	++	+	++	+				+	High
NEALTA	Cyflumetofen (25)	13.7 oz	12	14	27.4 oz(2)	+	+++													LOW
NEXTER 75 W	Pyridaben (21)	4.3-10.67 oz	12	7	21.34 oz	++	++				+	+		+		++		+		High
PETROLEUM OIL	Petroleum oil (NR)	0.5 – 3%	12	0	No limit	+	+	+	+	+	+	+	+			+	+			Low
PLATINUM 75 SG*	Thiametoxam (4) (SOIL)	1.83 - 3.67	12	0	3.67 oz			++	++	+++	+++	++	+	+	+	++	++	++	++	Low
PORTAL/FUJIMITE	Fenpyroximate (21A)	1-4 pt	12	14	8 pt (2)	++	+				++	+	+			+	+	+		Moderate
REQUIEM 25 EC	Extract of <i>Chenopodium ambrosioides</i>	2 – 4 qts	4	0	10	++	++			++										Low
SAVEY 50 DF	Hexythiazox (10A)	3 – 6 oz	12	28	6 (1)	+	+++													Moderate
SEVIN SL	Carbaryl (1A)	2 – 5 qts	12	5	20 (8)	++		+++	+++	+				++		+				High
SHERPA	Imidacloprid (4A)	10 - 20 oz	12	0	40 oz			++	++	+++	+++	++	+	+	+	++	++	++	++	Moderate
SIVANTO 200 SL	Flupyradifurone (4D)	7 - 14 oz	4	1	28 oz			+	++	+	++	++				++				Low
SPINTOR 2 SC	Spinosad (5)	4 - 10 oz	4	1	29 oz (2)					++	+		++							Low
SULFUR / SULFORIX	Sulfur (NR)		12	0		++	+													High
VENDEX 50 WP	Fenbutatin-oxide (12B)	2 - 3 lb	48	7	6 lbs (2)	++	++													Low
VOLIAM Flexi	Thiamethoxam(4A)/Chlorantraniliprole (28)	4 – 7 oz	12	1	14 Oz			++	++	++	++	++	+	++		++	++	+		Moderate
VERIMARK	Cyantraniliprole (28) (SOIL)	15-30 oz	4	1	30 oz (2)					+++	+++					++				Moderate
VYDATE L	Oxamyl (1A)	0.5 - 4 pt	48	7	24 pts (6)	++	+			+	+					+		+		High

IRAC-MOA = Insecticide Resistance Action Committee - Mode Of Action. For resistance management and good pesticide stewardship, growers should not only rely on a **single pesticide class** for pest control. Use recommended rates of pesticides- do not exceed maximum allowable rates per season. **Before tank mixing pesticides, make sure they are compatible.** If control fails after an application, use a pesticide with a different mode of action to retreat. Pesticides with 24(C) labels are registered for Asian citrus psyllid only. *** Closer is temporarily suspended by EPA. Please make sure pesticide is legally registered before using it.

FORMULATION OF ORGANIC PESTICIDE	Mite Pests		Insect Pests	Greasy spots	Melanose	Phytophthora	POST-BLOOM FRUIT DROP	Scab	ALTER-NARIA
	Citrus rust mite	Spider mites							
Sulfur Products: ➤ Eg. Kumulus DF, Microthiol 80 DF, Sulfur DF, Sulfur 6F, Sulfur 6L, Sulfur 90 W, Micronized sulfur, 80% Thiospere, Wettable sulfur, etc.	++	+	+ (Thrips only)						
Copper: Cu hydroxide, Cu oxychloride, Cu sulfate, cuprous oxide				+++	+++	+	+++	+++	++
Oils ➤ Petroleum-based*: Suffoil-X, Superior spray oil, Organic JMS Stylet oil ➤ Plant-based: Azatrol, Aza-Direct, AzaGuard, Ecotrol, Oil Pharm, Neemix, Oroboost, Prevam, Trilogy, Soybean oil, cottonseed oil	++ ++	++ ++	++ +	++ +	+ +		+	+ +	+ +
Pyrethrins and pyrethrin-based ➤ Evergreen EC 60-6, Pyganic			++						
Insecticidal soaps ➤ Potassium salt of fatty acids: Des-X, P-Pede	+	+	++						
Other products ➤ Sil-Matrix, Entrust, Agree, Garlic extract, Hot pepper wax, Sucroicide, SucraShield, PFR-97	See label	See label	See label	See label	See label	See label	See label	See label	See label

PESTICIDE DISTRIBUTORS IN SOUTH TEXAS	LABEL RECOMMENDATIONS FOR FUNGICIDES							CITRUS DISEASE					NEMATODE	
	FUNGICIDE	ACTIVE INGREDIENT	MODE OF ACTION	RATE/Ac	REI (hr)	PHI (d)	Maximum Rate/Yr	GREASY SPOT	MELANOSE	PHYTOPH-THORA*	SCAB	POST-BLOOM FRUIT DROP		ALTER-NARIA
<p>TAMUK Citrus Center is an Equal Opportunity Institution authorized to provide research, educational information and other services. Mention of pesticides and distributors are for guidance only and do not constitute an endorsement by TAMUK</p> <p> 501 E Monte Cristo Rd, Edinburg, TX 78541, Tel 956-383-7451</p> <p> 3809 W Monte Cristo Rd, Edinburg, TX 78539, Tel 956-383-8433</p> <p> Border Rd, Alamo, TX 78516, Tel 956-464-4411</p> <p> 24203 E. Port Rd, Harlingen, TX 78550, Tel 956-428-0575</p> <p>For questions, please call Dr. Mamoudou Sétamou at 956-447-3370 or email at mamoudou.setamou@tamuk.edu</p>	ABOUND 2.08 F	Azoxystrobin	11	12 - 15 oz	4	0	92.3 fl oz	+++	+++		+++	+++	+++	
	ALLETTE WDG	Aluminum tris	33	2 ½ - 5 lb	12	30	20 lbs (4)			+++		++	++	
	COPPER FUNGICIDE	Cu hydroxide, Cu oxychloride, Cu sulfate, cuprous oxide	M1	See label	24	See label	None	+++	+++		+++	++		
	ENABLE 2F	Fenbuconazole	3	8 oz	12	0	24 fl oz (3)	+++	+++		++			
	GEM	Trifloxystrobin	11	4 - 8 oz	12	7	32 fl oz (4)	+++	+++		+++	+++	+++	
	HEADLINE	Pyraclostrobin	11	9 -15 oz	12	0	54 fl oz	+++	+++		+++	+++	+++	
	(PRESIDIO (For non-bearing)	Fluopicolide	43	3 -4 oz	12	1 yr	4 fl oz (1)			+++				
	PRISTINE	Pyraclostrobin, Boscalid	11, 7	16 -18.5 oz	12	0	74 fl oz	+++	+++		+++	+++	+++	
	LUNA PREVILEGE	Fluopyram,	7	4.8 -6.84 oz	12	7	13.7 oz				+++		+++	+++
	LUNA SENSATION	Fluopyram, Trifloxystrobin	7, 11	7.6 oz	12	7	27.1 fl oz	+++	+++		+++	+++	+++	++
	RIDOMIL GOLD SL	Mefenoxam	4	1 - 3 qts	48	21	6 qts			+++				
	QUADRIS TOP	Azoxystrobin Difenconazole	11,3	10-15.4 oz	12	0	61.5 oz	+++	+++		+++	+++	+++	
	SPRAY OILS (Narrow Range)	Oil Midpoint boiling range of 412°F - 455 °F	NR	2 -10 gal	12	0	None	+++	++			++		

Most pesticides required the use of a spray adjuvant (surfactant, oils) for enhanced performance. Narrow range oils, Non-ionic surfactants, and Orocit are recommended for citrus pest control. Make sure to read the label and ensure compatibility before tank mixing pesticides. For instance, do not tank mix sulfur and oil; M-Pede or Des-X and sulfur, or any penetrator, spreader sticker, activator, calcium nitrate, diatomaceous earth, Aliette fungicide or metallic ions (Mn, Mg, Fe or Zn). For more information on pesticide current registration status in Texas, visit http://npirspublic.ceris.purdue.edu/state/state_menu.aspx?state=TX.