Cooperative Extension 196005

Whiteflies in Arizona: Pocket Guide '96

The University of Arizona • College of Agriculture April 30, 1996

Compiled by: Peter C. Ellsworth, IPM Specialist; Theo F. Watson, Professor Emeritus of Entomology
Department of Entomology and Maricopa Agricultural Center

THE UNIVERSITY OF ARIZONA®
TUCSON ARIZONA

This guide is provided as a quick and convenient reference for whitefly control. It presents performance results in summary tables for those insecticides which have been tested in Arizona since 1991. The guide can also help in the adherence to the currently recommended integrated resistance management (IRM) plan for whiteflies in Arizona. This plan, jointly developed by industry, USDA, and University scientists, places all chemical use for whiteflies in three stages. The first stage, not shown here, involves the use of two insect growth regulators in succession during the beginning of the infestation (see IPM No. 3, 4 & 6). ***Stage II and III should be used only after 5 adults per leaf have been reached (see IPM No. 2). No active ingredient should be used more than twice, and pyrethroids as a class should not be used more than twice. Stage III, the pyrethroid mixtures, should not be used until late in the season and only after using Stage I and II options.***

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, James A. Christenson, Director, Cooperative Extension, College of Agriculture, The University of Arizona.
The University of Arizona College of Agriculture is an equal opportunity employer authorized to provide research, educational information and other services only to individuals and institutions that function without regard to sex, race, religion, color, national origin, age, Vietnam Era Veteran's status, or disability.

Stage II: Whitefly Control with Non-Pyrethroids

1/ Eggs, Nymphs, and Adults
2/ Start earlier in the population development to achieve better control
— = No data available for ranking

Single Compounds / Compound Mixtures	Class of Chemistry	Compound / Rate (lbs a.i. / A) / SPWF Stages	Organophosphates: Bolstar (0.75) E N A[1]	Organophosphates: Curacron (0.75) E N A	Diamidide: Ovasyn (0.25) E N A	endosulfan (0.75) E N A
						SPWF Stages E N A[1]
	Organo-Phosphates	Lorsban (0.50)			—	● ◑ ◑
		Metasystox-R (0.50)			—	● ● ●
		Orthene (0.75)			—	◑ ○ ○
		PenncapM (0.50)			● ● ○	○ ◑ ▷
	Carbamates	Vydate (0.50)	◑ ◑ ◑	◑ ◑ ○	◑ ◑ ○	○ ◑ ○
Cyclodiene[2] endosulfan (0.75)	Cyclodiene	endosulfan (0.75)	—	—	● ● ●	
Nicotinyl[2] Provado (0.044)						◑ ◑ ◑

Not recommended for resistance management

Stage III: Whitefly Control with Pyrethroids

Ratings of Insecticide Performance

● = Excellent; ◒ = Good; ○ = Fair; ◡ = Weak

Class of Chemistry	Compound / Rate (lbs a.i. / A) / SPWF Stages	Synthetic Pyrethroids: Asana (0.05)[1] E N A	Baythroid (0.04) E N A	Capture (0.08) E N A	Danitol (0.20) E N A	Karate (0.04) E N A	Mustang (0.05) E N A
Organo-Phosphates	Curacron (0.50)	● ● ◑	—	—	● ● ●	● ● ◑	—
	Lorsban (0.50)	○ ○ ○	—	● ◑ ◑	● ● ●	○ ◑ ○	○ ○ ○
	Metasystox-R (0.50)	—	—	● ◑ ●	● ● ●	—	—
	Monitor (0.50)	—	● ◑ ◑	—	●	—	—
	Orthene (0.50)	● ◑ ◑	● ◑ ◑	● ● ●	● ● ●	● ◑ ◑	● ◑ ◑
	PenncapM (0.50)	◑ ◑ ○	● ◑ ○	—	● ● ●	● ◑ ◑	—
Carbamates	Lannate (0.50)	◑ ◑ ◑	—	● ◑ ◑	● ● ●	—	—
	Vydate (0.50)	○ ○ ○	○ ▷ ▷	● ○ ◑	● ◑ ◑	◑ ○ ●	▷ ▷ ▷
Cyclodiene	endosulfan (0.75)	◑ ◑ ◑	—	● ● ●	● ◑ ●	● ● ●	◑ ◑ ●
Diamidide	Ovasyn (0.25)	○ ◑ ○	—	◑ ○ ◑	—	○ ○ ○	—