

Insecticide Resistance Management Strategies Developed by the CropLife Australia Insecticide Resistance Management Review Group Valid as at 10 June 2016

Crop(s) : Various

Insect(s): Silverleaf Whitefly

Guidelines:

- Monitor pest numbers and apply control measures before adult populations reach high levels.
- 2. Select registered insecticide control measures according to the primary growth stage of the pest, the infestation level and the age and type of crop.
- In cotton, spray decisions should be based on the Silverleaf Whitefly threshold matrix. Refer to the current Cotton Pest Management Guide for further details
- 4. Where possible, utilise selective insecticides during the early stages of crop development to minimise the impact on beneficial insects.
- 5. Rotate between registered insecticides that have different modes of action (eg. **Group 1, Group 3, Group 4, Group 7, Group 12, Group 23 and Group 28**).
- 6. **Do not** apply more than two consecutive applications of insecticides that have the same Mode of Action within and between seasons.
- 7. The Modes of Action (groups) and registered insecticides for control of Silverleaf Whitefly are listed below.

Group*	Chemical sub-group	Example chemicals
1B	Organophosphate	acephate
3A	Synthetic pyrethroid	bifenthrin
4A	Neonicotinoid	acetamiprid, imidacloprid, thiamethoxam
7C	Pyriproxyfen	pyriproxyfen
12A	Diafenthiuron	diafenthiuron
23	Spirotetramat	spirotetramat
	Petroleum oil	petroleum oil
28	Diamides	Cyantraniliprole

*Refer: CropLife Australia Insecticide Resistance Management Review Group Mode of Action Classification for Insecticides

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Crop(s) : Various (cont.)

Insect(s): Silverleaf Whitefly (cont.)

- 8. Seek advice from the manufacturers and/or government advisory services to determine local resistance levels for particular Group 1, Group 3, Group 4 and Group 7 insecticides.
- 9. Do not exceed the maximum number of applications permitted on the insecticide label.
- When using insecticides to control other pests, consider the chemical group in relation to contributing to resistance development of Silverleaf Whitefly.

NOTE:

Not all chemical groups listed have registered products available in all crops affected by Silverleaf Whitefly. Only use products registered for use in crop to be treated.

Cultural Practices:

- 1. In vegetable crops, ensure seedlings are free of pests prior to transplanting. Inspect transplants carefully upon arrival for whitefly eggs, nymphs and adults.
- 2. Control alternate weed hosts of Silverleaf Whitefly 2-3 weeks before planting to reduce early population levels.
- 3. Clean-up crop residues
 - a. Where moderate population levels remain after harvest, apply a registered insecticide or oil treatment effective against adults.
 - b. Plough in crops within 2-3 days of application to kill all remaining nymphs on crop foliage to reduce pest migration into new plantings.