



**Insecticide Resistance Management Strategies**  
**Developed by the CropLife Australia Insecticide Resistance Management Review Group**  
 Valid as at 27 June 2013

**Crop(s) : Various**  
**Insect(s) : Silverleaf Whitefly**

**Guidelines:**

1. 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.
3. 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 and Group 23).
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.

| <b>Group*</b> | <b>Chemical sub-group</b> | <b>Example chemicals</b>                |
|---------------|---------------------------|---|
| 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                           |

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

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Advice given in this strategy is **valid as at 27 June 2013**. All previous versions of this strategy are now invalid.  
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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.
10. 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 the 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.

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