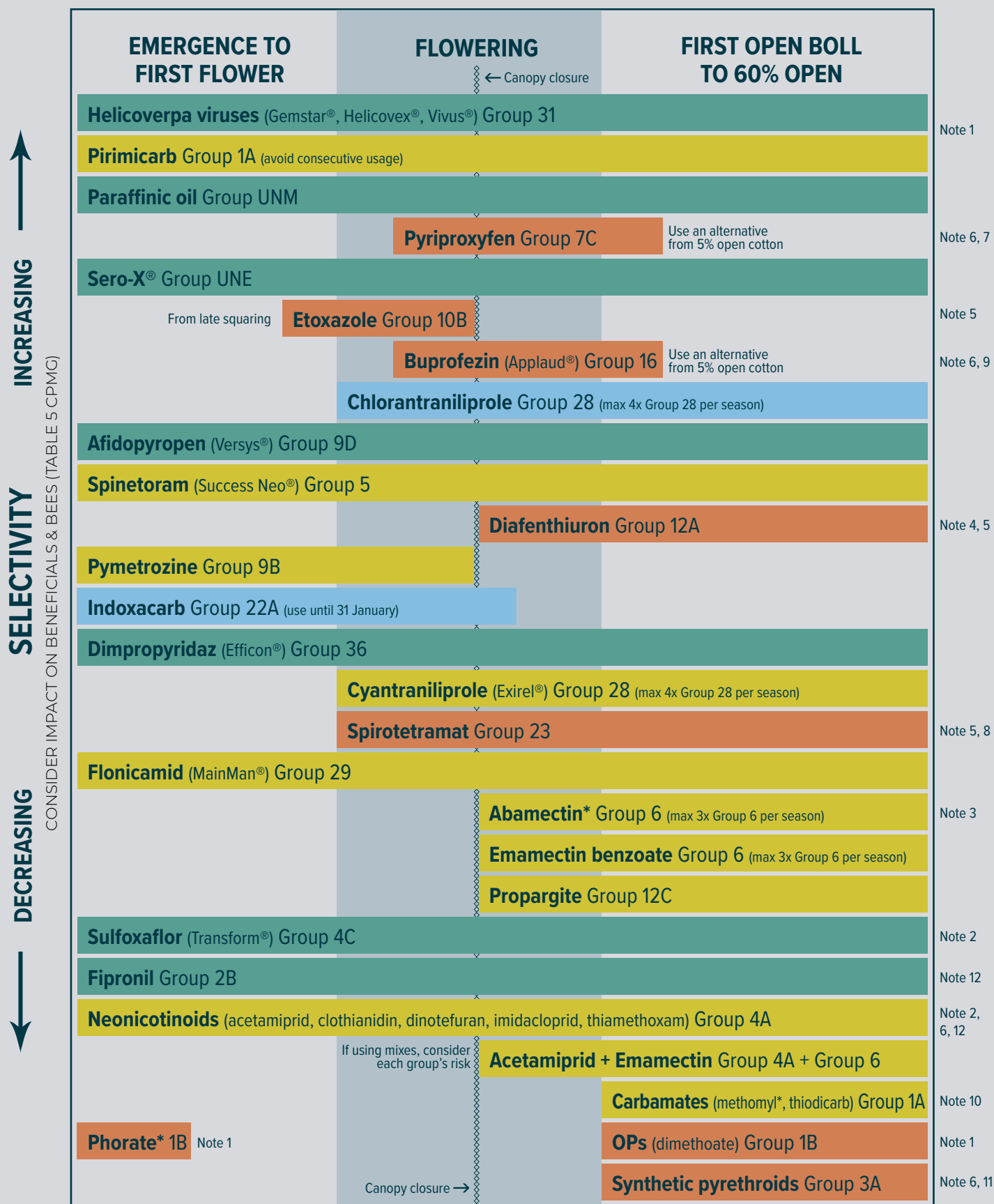




Insecticide Resistance Management Strategy 2025/26

Best practice product windows and use restrictions to manage insecticide resistance in insect pests of Australian cotton



*examples of highly hazardous pesticides (HHP) under Better Cotton™: accredited growers must consider current HPP status of products before use.

How to use the IRMS

The IRMS aims to reduce the chance that highly mobile pests would be repeatedly exposed to the same insecticide/miticide mode of action group by limiting the timing of insecticide availability. The strategy focuses on different crop stages (before, during, and after flowering), with particular attention to canopy closure. From a broader management perspective, it's important that crops are sown at a similar time within a region. This helps prevent mobile pests, such as silverleaf whitefly, from moving between fields and repeatedly encountering the same chemical treatments where crops have very different growth stages within the same district. If late-sown crops require management, where practical choose products that align with the average crop development stage for your region.

Products are listed in order of decreasing selectivity. For all pest species, aim to use the most selective option, delaying or avoiding the use of broad-spectrum products.

See CottonInfo's website for the latest resistance monitoring results.



Use restrictions

The colours of insecticide windows represent the maximum number of applications per crop per season for any given product or product group. Note: some products in the 'avoid repeated use' may have a maximum application number stated on the label.

No more than 1 application per season

No more than 2 applications per season

No more than 3 applications per season

Avoid repeated applications of same group

Additional restrictions are included to the right of the table; these link to the specific footnotes below.

IRMS notes:

Mirids: No resistance issues identified, but insecticides targeting mirids also select for resistance in secondary pests (aphids, mites & SLW).

Aphids: High resistance to pirimicarb/dimethoate (Group 1) mean **field failures in most areas are likely.**

1. Early season dimethoate application for mirids has contributed to strong pirimicarb resistance in aphids and field failures. DO NOT use pirimicarb and dimethoate in the same field. If applying phorate at planting DO NOT use pirimicarb or dimethoate early season to avoid cross resistance.
2. DO NOT follow a neonicotinoid seed treatment {4A} with a foliar neonicotinoid {4A} when aphids are present. If there is an alternative, do not follow a neonicotinoid with sulfoxaflor {4C} to avoid cross-resistance.

Mites: A high level of caution is recommended as **mite control options are limited.** In northern NSW there is moderate to high resistance to abamectin and diafenthiuron while etoxazole {10B} resistance is emerging across NSW. No miticides are recommended before late squaring – sow into clean fields to avoid mite displacement from herbicide-treated weeds. There is potential for mites to exchange between cotton and maize when grown in close proximity.

3. Do not prophylactically add abamectin {6} to mirid sprays.
4. Moderate to severe resistance to diafenthiuron {12A} has been identified. DO NOT use more than 1 application/season irrespective of target pest (see label).
5. Etoxazole {10B} resistance has been detected throughout NSW. DO NOT use more than 1 application per season and avoid consecutive etoxazole usage in maize and cotton crops grown within close proximity. see IRMS for product window recommendations

Silverleaf whitefly: Pyriproxyfen resistance is stable; spirotetramat resistance continues to increase. SLW has low levels of resistance to pyrethroids in all regions.

6. See www.cottoninfo.com.au/publications/2024-silverleaf-whitefly-sampling-and-thresholds for more guidance.
7. Resistance to pyriproxyfen {7C} is low but widespread. To avoid loss of product efficacy DO NOT use more than 1 application of pyriproxyfen per season.
8. Low level spirotetramat {23} resistance has been detected consistently in almost all regions. Resistance levels are EXTREME in Lockyer and Bowen regions. A notable increase has also occurred in the St George and Border Rivers regions. For ALL REGIONS - switch to another product particularly if spirotetramat {23} was utilised in the previous season. Resistance can develop rapidly and reversal of resistance is unlikely. DO NOT use more than once per season unless targeting mealybugs.
9. Unless targeting mealybugs, do not use buprofezin {16} more than once per field.

Helicoverpa armigera: Resistance stabilised. Continue to adhere to IRMS.

10. Additional applications can be made if targeting *Helicoverpa* moths using Magnet®.
11. High pyrethroid {3A} resistance in *H. armigera* populations. Expect field failures.

Thrips: Moderate levels of resistance to fipronil detected in cotton seedling thrips. Avoid use on establishing crops. Continued adherence to IRMS recommended.

12. Imidacloprid {4A} and fipronil {2B} resistance in cotton seedling thrips is likely. If resistance is suspected, consider phorate as an at-planting alternative. Consider alternatives to neonicotinoids and fipronil for first foliar spray.

- ALWAYS FOLLOW LABEL DIRECTIONS.
- ALWAYS CONSIDER PRODUCT IMPACTS AND LABEL DIRECTIVES FOR BEES. NOTE THAT WITH ADVENT OF VARROA MITES HIVES MAY BE MORE SENSITIVE TO INSECTICIDE IMPACTS.
- CONSIDER IMPACT ON BENEFICIALS (Table 5 in the *Cotton Pest Management Guide 2025-26*). IMPLEMENT AN IPM STRATEGY THAT INCLUDES GOOD FARM HYGIENE AND CONTROL OF OVERWINTER HOSTS.
- PUPAE BUST CONVENTIONAL COTTON CROPS AFTER HARVEST.