Crops(s) **Various**

Insect(s) **Fall armyworm (*Spodoptera frugiperda*)**

List of active constituents approved for use under permits or registered by the Australian Pesticides and Veterinary Medicines Authority (APVMA) as of March 2023:**

MoA Group	Chemical sub-group	Active ingredient	No. applications permitted per crop per season	Permit of registered	Crops
3A	Pyrethroids	alpha-cypermethrin	4	PER85477 to 30.4.26	maize, sweet corn, chickpeas, fababeans, field peas, mungbeans, navy beans, soybeans, sorghum, millet
5	Spinosyns	spinetoram spinetoram spinetoram spinosad	"3	"PER93550 to 31.12.26	"ginger
5 + 18	Spinosyns + diacylhydrazines	spinetoram + methoxyfenozide	2	PER93482 to 31.12.26	maize cereals, grain sorghum, millet
6	Avermectins	emamectin benzoate	4	PER89241 to 31.1.28	capsicum, sweet corn
11A	*Bacillus thuringiensis*	*B.thuringiensis subsp. kurstaki*	4"	PER89870 to 31.7.25"	vegetables, berries, coffee, tropical & sub-tropical fruit, sweet corn"
22A	Oxadiazines	indoxacarb	2	Registered	maize
28	Diamides	chlorantraniliprole	"2	"PER93481 to 30.9.25	"wheat, maize cereals
28	Diamides	tetraniliprole	4	PER89263 to 31.1.28	capsicum
31	Nucleopolyhedrovirus	SfMNPV	3	Registered	sweet corn

**Refer: CropLife Australia Expert Committee on Insecticide Resistance Mode of Action Classification for Insecticides*

***Refer to the APVMA's PubCris website (https://portal.apvma.gov.au/permits) to ensure permit is*

still active

Guidelines:

1. An Integrated Pest Management (IPM) approach should be adopted in the production system to help manage this pest, with focus on cultural methods and the preservation of beneficial arthropods (insects and spiders):
    a) This includes regular crop monitoring (at least 2 times per week) to determine incidence x crop damage and the impact of beneficial arthropods.
    b) Consideration should also be given to the impact of prevailing weather conditions on the rate of pest development in the field.
2. **Avoid** sequential plantings of preferred crops, e.g. corn, sorghum, sugarcane, as this will increase local populations of fall armyworm.
3. Management of crop residues/volunteer plants before planting and after harvest also helps reduce local populations of fall armyworm.
4. Where possible, **avoid** the use of broad spectrum foliar applied insecticides in the production system for both larvae and moth control. If broad-spectrum insecticides are to be used, apply at timings when preservation of beneficial species is less likely to be important – i.e. at end of growing season.
5. Consider controlling moths using light or attractant traps or sprays and encourage micro-bat habitat (natural or artificial roosting sites) adjacent to production areas.
6. In situations where insecticides are required, consider beneficial arthropods when making spray decisions.
7. When applying insecticides to this pest, key considerations should be given to:
    a) Apply insecticides only when needed based on economic thresholds;
    b) **Target early instar stages** (hatching larvae) of the pest before they become entrenched in the crop e.g. lower whorl of maize, sweet corn or grain sorghum;
    c) Use a **medium spray quality** to ensure sufficient droplets cover the spray target to ensure the larvae ingest a lethal dose of insecticide;
    d) Use a well calibrated, functioning boom spray with appropriate water rate for the target crop to ensure optimum spray coverage;

e) Use the recommended insecticide rates as stipulated on the relevant APVMA Emergency Use Permit;

f) Use a recommended adjuvant if stipulated on the relevant APVMA Emergency Use Permit; and

g) Inspect the performance of the insecticide 3-4 days after application. Always document the effectiveness of each insecticide application and never re-spray a failure with an insecticide with the same mode of action. Inform your local reseller or agronomist of any spray failures. Internationally, known resistance has occurred to the following MoA groups: Carbamates (Group 1A); Organophosphates (Group 1B); Pyrethroids (Group 3); Bacillus thuringiensis and Cry1F protein (Group 11A).

8. When using selected insecticides in-crop targeting fall armyworm, the following resistance management strategy guidelines should be implemented:

a) Do not treat successive generations with products of the same MOA;

b) The total exposure period of any one MOA insecticide applied throughout the crop cycle (from seedling to harvest) **should not exceed 50% of the crop cycle**;

c) Abide by the individual label recommendation for maximum **number of allowable applications per crop per season**;

d) Abide by individual label recommendation for the **minimum reapplication interval** and always use the **full recommended label rates**;

e) Where possible, an Area Wide Management strategy should be adopted where the same MOA insecticides are used **by all growers** in the **same time period**; and

f) As the industry learns more about how to manage this pest, this Strategy may be updated and regional-specific strategies may be developed. Check the CropLife Resistance Management website to ensure you are following the most up to date fall armyworm strategy.

9. Useful fall armyworm reference documents are available:
    - https://portal.apvma.gov.au/permits: search for APVMA insecticide permits to use on FAW.
    - https://www.cottoninfo.com.au/insect-and-mite-management
    - https://thebeatsheet.com.au/fall-armyworm-should-you-be-concerned/
    - https://irac-online.org/pests/spodoptera-frugiperda/
    - https://irac-online.org/new-guidelines-on-ipm-irm-for-fall-armyworm-in-s-african-maize/
    - https://grdc.com.au/resources-and-publications/resources/fall-armyworm

Notes regarding the application of insecticides:

1. To ensure the most effective control of the pest:
    a) Product labels should at all times be carefully read and adhered to;
    b) Full recommended rates of registered insecticides should always be used; and
    c) Ensure good coverage of the target area to maximise contact.