

Crop(s)	Tomato
Insect(s)	Heliothis / Tomato budworm (<i>Helicoverpa</i> spp.)

Guidelines

1. Monitor pest levels and **do not** spray unless pest thresholds are reached.
2. Use an integrated pest control approach where both chemical and non-chemical measures are adopted as part of the overall strategy. Examples are the use of predators/parasites and relevant cultural practices (crop hygiene, rotation of planted areas, and strategic time of planting).
3. Seek local advice on pest incidence and the risk of resistance development from insecticide programs used to control *Heliothis* in other crops or to control other pests.
4. When using insecticides/miticides to control other pests on tomato, consider the chemical group in relation to contributing to resistance development of *Heliothis*.
5. Avoid using insecticides from the same chemical group against consecutive generations of *Helicoverpa* spp. or other pests, as this will increase the selection pressure. This does not apply to *Bacillus thuringiensis* (Bt) or Nucleopolyhedroviruses (NPV) products, as they are considered to have a lower resistance risk. To encourage beneficial insects, use *Bacillus thuringiensis* (Bt) or Nucleopolyhedroviruses (NPV) sprays and avoid broad spectrum insecticides where possible, particularly early to mid-crop cycle.
6. Do not re-spray a crop in the same season where a failure (which is known or unknown) has occurred using the same insecticide or other active ingredient from the same chemical group.
7. The Modes of Action (Groups) and registered insecticides for control of *Heliothis*/Tomato budworm (*Helicoverpa* spp.) are listed below:

(Continued on next page)

30

Please note:

This strategy is a guide only and does not endorse particular products, groups of products or cultural methods in terms of their performance. Always follow the product label for specific use instructions. While all effort has been made with the information supplied in this document, no responsibility, actual or implied, is taken for the day to day accuracy of product or active constituent specific information. Readers should check with the Australian Pesticides and Veterinary Medicines Authority's product database for contemporary information on products and actives. The database can be sourced through www.apvma.gov.au. The information given in this strategy is provided in good faith and without liability for loss or damage suffered as a result of its application and use. Advice given in this strategy is valid as of 22 July 2026. All previous versions of this strategy are now invalid.



MoA Group*	Chemical subgroup	Active ingredient	Delivery method	No. applications permitted per crop per season
1A	Carbamates	methomyl (eg. Lannate® L), thiodicarb (eg. Larvin®)	Foliar	not specified
3A	Pyrethroids	synthetic pyrethroids (various – eg. Dominex® Duo, Karate® Zeon, Sumi-alpha® Flex, Trojan®)	Foliar	not specified
5	Spinosyns	spinetoram (Success® Neo), spinosad (eg. Entrust®)	Foliar	4
6	Avermectins	emamectin benzoate (eg. Proclaim® Opti)	Foliar	4
11A	<i>Bacillus thuringiensis</i>	<i>B.thuringiensis subsp. kurstaki</i> (eg. Dipel®)	Foliar	not specified
18	Diacylhydrazines	methoxyfenozide (eg. Prodigy®)	Foliar	not specified
22A	Oxadiazines	indoxacarb (eg. Avatar® eVo)	Foliar	3 and no more than 2 consecutive applications
22A + 15	Oxadiazines + benzoylureas	indoxacarb + novaluron (Plemax®)	Foliar	3 and no more than 2 consecutive applications
28	Diamides	chlorantraniliprole (eg. Coragen®), flubendiamide (eg. Belt®)	Foliar	3 and no more than 2 consecutive applications (including mixtures of chlorantraniliprole and thiamethoxam)
28	Diamides	cyantraniliprole (Benevia®)	Foliar	2
28 + 12A	Diamides + diafenthiuron	cyantraniliprole + diafenthiuron (Minecto Forte®)	Foliar	2
28 + 4A	Diamides + neonicotinoids	chlorantraniliprole + thiamethoxam (Durivo®)	Soil	1
31	Nucleopolyhedrovirus	NPV of H.zea or H.armigera (eg. Gemstar®, Vivus® Max)	Foliar	not specified
UN	<i>Clitoria ternatea</i> extract	clitoria ternatea extract (Sero-X)	Foliar	not specified

31

Continued on next page.

Please note:

This strategy is a guide only and does not endorse particular products, groups of products or cultural methods in terms of their performance. Always follow the product label for specific use instructions. While all effort has been made with the information supplied in this document, no responsibility, actual or implied, is taken for the day to day accuracy of product or active constituent specific information. Readers should check with the Australian Pesticides and Veterinary Medicines Authority's product database for contemporary information on products and actives. The database can be sourced through www.apvma.gov.au. The information given in this strategy is provided in good faith and without liability for loss or damage suffered as a result of its application and use. Advice given in this strategy is valid as of 22 July 2026. All previous versions of this strategy are now invalid.



Notes regarding the application of insecticides:

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.

Please note:

This strategy is a guide only and does not endorse particular products, groups of products or cultural methods in terms of their performance. Always follow the product label for specific use instructions. While all effort has been made with the information supplied in this document, no responsibility, actual or implied, is taken for the day to day accuracy of product or active constituent specific information. Readers should check with the Australian Pesticides and Veterinary Medicines Authority's product database for contemporary information on products and actives. The database can be sourced through www.apvma.gov.au. The information given in this strategy is provided in good faith and without liability for loss or damage suffered as a result of its application and use. Advice given in this strategy is valid as of 22 July 2026. All previous versions of this strategy are now invalid.

