

Fennel bulb Agrichemical Regulatory Risk Assessment

November 2025

Regulatory pressures on agrichemicals are increasing globally, with many being either restricted or withdrawn from use. For older agrichemicals, these pressures are often the result of reconsiderations involving new or refined risk assessment methodologies that require the generation of new data. A consequence of which can be that many of these agrichemicals are not meeting contemporary risk assessment standards as the necessary data is unavailable, or where data is available, the risk posed is considered unacceptable.

The use of agrichemicals can also be impacted through differences in standards between trading partners. The lack of an appropriate pesticide maximum residue limit (MRL) in an importing country can, for practical purposes, effectively prohibit use in the exporting country to ensure compliance, as MRL breach would adversely affect market access.

The effects of the above are greater regulatory pressure placed on the use of individual agrichemicals or chemical groups. Consequently, the number of approved agrichemical options could be adversely impacted.

To assist strategic planning, with respect to future pest management options, the following tables have been developed to highlight the regulatory threats to agrichemicals currently approved for the management of the pests and diseases in fennel (bulb) crops in Australia, as well as assisting with any current initiatives aimed at identifying and addressing pest management deficiencies.

R0	Use no longer approved
R1	Short-term: Critical concern over retaining access < 1 year
R2	Medium-term: Maintaining access of significant concern <2-5 years
R3	Long-term: Potential issues associated with use – Monitoring required < 5 years
R4	No current risk/concerns

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INSECTICIDES/MITICIDES/NEMATOCIDES - Insect and other pests

Blue text = new APVMA approved uses

Active Constituent	MoA Group	Pest	Risks and Comments
<i>Bacillus Thuringiensis</i>	11A	Armyworm, Helicoverpa Loopers	Australia: No current concerns. USA: Under Registration Review (scheduled)
CHLORPYRIFOS	1B	Spotted vegetable weevil Cutworms Field crickets Mole crickets Vegetable weevil	Australia: The chemical review was completed in September 2024. Most uses in horticultural crops were removed. After 30 September 2025, products with previously approved labels must not be supplied. The only remaining approved use is in Brassica crops as specified on current labels. EU: Not approved Canada: Cancelled USA: Agricultural uses cancelled. Very few registrations as Restricted Use Pesticide.
CYANTRANILIPROLE	28	Rasping pests; [Suppression only] Onion thrips (Thripstabaci)	Australia: No current concerns.
CYROMAZINE	17	PER81867 for the control of Liriomyza species, including: Vegetable Leafminer (Liriomyza sativae) Serpentine Leafminer (Liriomyza huidobrensis)	Australia: No current concerns. Permit PER81867 Expiry date: 30/09/2026 EU: Not approved
DIAZINON	1B	Caterpillars	Australia: Australia: APVMA made a Final Decision on 2024. After 10 September 2025, crop uses are no longer approved. . Codex: All MRLs deleted EU: Not approved Canada: Cancelled USA: Under Registration Review (scheduled)
FLONICAMID	29	PER89185 for the control of Thrips	Australia: No current concerns. Permit PER89185 Expiry date: 31/05/2027
FLUBENDIAMIDE	28	Helicoverpa	Australia: No current concerns. EU: Not approved UK: Withdrawn (2024).
HELICOVERPA ARMIGERA NPV	31	Helicoverpa	Australia: No current concerns.

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INDOXACARB	22A	Cotton bollworm (H. armigera) Native budworm (H. punctigera)	Australia: No current concerns. EU: Not approved UK: Withdrawn (2024).
MALATHION	1B	Loopers	Australia: The final regulatory decision was published in an APVMA Special Gazette on 2 May 2024. Labels have been varied. Products bearing previously approved labels must not be supplied after 1 May 2026. UK: Withdrawn (2025). Canada: In re-evaluation USA: Under Registration Review (scheduled)
METALDEHYDE	2B	slugs/snails	Australia: No current concerns. Canada: In re-evaluation
METHIOCARB	1A	slugs/snails	Australia: No current concerns Canada: Cancelled
PETROLEUM OIL	UN	PER12221 for the control of Aphids Green mirid Green vegetable bug Grey cluster bug Leafhoppers Mites Rutherglen bug Thrips	Australia: No current concerns. Permit PER12221 Expiry date: 30/09/2027 EU: Not approved
PROPARGITE	12C	Spider mites	Australia: APVMA reconsideration. Prioritised to be commenced by 2029. EU: Not approved Canada: Cancelled USA: Under Registration Review (scheduled)
SPINETORAM	5	Permit PER94451 for the control of Leaf miners	Australia: No current concerns. Permit PER94451 Expiry date: 31/07/2027 EU: Not approved UK: Withdrawn (2024). Canada: In re-evaluation
SPINOSAD	5	Cabbage moth helioverpa spp. light brown apple moth loopers. Permit PER94331 for the control of Dipteran leaf miners	Australia: No current concerns. Permit PER94331 Expiry date: 30/04/2026 Canada: In re-evaluation

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TRICHLORFON	1B	Cabbage white butterfly cabbage moth green vegetable bug Rutherglen bug	Australia: APVMA nominated for reconsideration after 2029. EU: Not approved Canada: Cancelled USA: Under Registration Review (scheduled)
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FUNGICIDES – Disease Control

Active Constituent	MoA Group	Pest	Risks and Comments
CHLOROTHALONIL	M5	Permit PER82895 for the control of Downy Mildew and Purple Blotch (<i>Alternaria porri</i>)	Australia:APVMA reconsideration. Prioritised to be commenced by 2028. Permit PER82895 Expiry date: 31/05/2030 EU: Not approved Canada: In re-evaluation USA: Under Registration Review (scheduled)
COPPER	M1	Leaf diseases	Australia: No current concerns.
MANCOZEB	M3	Leaf blight	Australia:APVMA reconsideration. Prioritised to be commenced by 2027. EU: Not approved UK: Withdrawn (2024). USA: Under Registration Review (scheduled)
OXATHIPIPROLIN	49	Downy Mildew	Australia: No current concerns.
PENTHIOPYRAD	7	Sclerotinia rot (Lettuce drop) (<i>Sclerotinia</i> spp.) Grey mould (<i>Botrytis cinerea</i>) Powdery mildew (<i>Erysiphe cichoracearum</i>)	Australia: No current concerns.
PHOSPHOROUS (PHOSPHONIC) ACID	P07 (33)	PER13698 for the control of Downy Mildew and Damping Off	Australia: No current concerns. Permit PER13698 Expiry date: 30/09/2025

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HERBICIDES – Weed Control

Active Constituent	MoA Group	Risks and Comments
DIQUAT	22	Australia:APVMA: Currently under review . Publication of the final regulatory decision is now expected in Mid 2026. EU: Not approved USA: No agricultural uses allowed. Aquatic herbicide.
GLYPHOSATE	9	Australia: APVMA Nominated for targeted spray drift reconsideration USA: Under Registration Review (scheduled)
PARAQUAT	22	Australia:APVMA: Currently under review . Publication of the final regulatory decision is now expected in Mid 2026. Candidate chemical recommended to be listed to Rotterdam Convention. EU: Not approved Canada: Cancelled USA: Restricted use

FUMIGANTS – Mixed Function

Active Constituent	Use	Risks and Comments
1,3-DICHLOROPROPENE	Control of soil borne diseases, plant parasitic Nematodes, Symphylans and Wireworms	Australia: No current concerns. EU: Pending Canada: Cancelled
CHLOROPICRIN	Control of soil borne diseases, plant parasitic Nematodes, Symphylans and Wireworms	Australia: No current concerns. EU: Not approved USA: Restricted use

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Active Constituent	Use	Risks and Comments
CHLOROPICRIN + 1,3-DICHLOROPROPENE	Control of soil borne diseases, plant parasitic Nematodes, Symphylans and Wireworms	CHLOROPICRIN Australia: No current concerns. EU: Not approved USA: Restricted use 1,3-DICHLOROPROPENE Australia: No current concerns. EU: Pending Canada: Cancelled
DAZOMET	Control of bacterial spot (<i>Xanthomonas</i> spp.) (suppression only). Soil insects and nematodes	Australia: No current concerns. USA: Under Registration Review (scheduled)
ETHANEDINITRILE	Soil borne pathogens, nematodes and weeds	Australia: No current concerns.
METHAM PRESENT AS SODIUM SALT	Germinating weeds and soil-borne fungus diseases	Australia: No current concerns.

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