

## **Carrots**

# **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Regulatory pressures on agrichemicals are increasing globally, with many being either restricted or withdrawn from use.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 carrots 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
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## Carrots - Agrichemical Regulatory Risk Assessment

### INSECTICIDES/MITICIDES/NEMATOCIDES - Insect and other pests

Blue text = new APVMA approved uses

ACTIVE CONSTITUENT	MoA Group	Pest	Risks and Comments
AFIDOPYROPEN	9D	Permit PER88430 for the control of Aphids; Carrot aphid; Green peach aphid	Australia: No current concerns. Permit PER88430 Expiry date: 31/01/2028 EU: Not approved
<i>Bacillus thuringiensis</i>	11A	Armyworm Cotton bollworm Native budworm Cabbage moth Cabbage white butterfly Loopers Lightbrown apple moth Vine moth	Australia: No current concerns. USA: Under Registration Review (scheduled)
CHLORPYRIFOS	1B	--	Australia: <a href="#">The chemical review was completed in September 2024</a> . 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.
CYROMAZINE	17	Liriomyza species, including: Vegetable Leafminer Serpentine Leafminer	Australia: No current concerns. EU: Not approved
DIAZINON	1B	--	Australia: <a href="#">APVMA made a Final Decision on 2024</a> . After 10 September 2025, crop uses are no longer approved. Codex: All MRLs deleted EU: Not approved Canada: Cancelled USA: Under Registration Review (scheduled)

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ACTIVE CONSTITUENT	MoA Group	Pest	Risks and Comments
EMAMECTIN	6	Diamondback Moth (Cabbage Moth)( <i>Plutella xylostella</i> ), Cabbage White Butterfly ( <i>Pieris rapae</i> ) Heliothis ( <i>Helicoverpa</i> spp.) Cluster caterpillar ( <i>Spodoptera litura</i> ) Loopers ( <i>Chrysodeixis</i> spp.) Cabbage Centre Grub ( <i>Hellula Hydralis</i> )	Australia: <a href="#">APVMA Nominated for targeted spray drift reconsideration</a> EU: Approved, candidate for substitution. UK: Withdrawn (2024).
FIPRONIL	2B	Permit PER86665 for the control of White fringed weevil and Symphylids	Australia: APVMA: <a href="#">Currently under review</a> . Proposed Regulatory decision expected by April 2026. Permit PER86665 Expiry date: 31/12/2025 EU: Not approved USA: Under Registration Review (scheduled)
FLUAZAINDOLIZINE	N-UN	Root Knot Nematode ( <i>Meloidogyne</i> spp.)	Australia: No current concerns. Codex MRL: 0.4 mg/Kg EU: Pending
FLUBENDIAMIDE	28	Cabbage white butterfly; Cluster caterpillar; Diamondback (Cabbage) moth; Helicoverpa; Potato moth (Leafminer)	Australia: No current concerns. EU: Not approved UK: Withdrawn (2024).
FLUENSULFONE	5	Root knot nematode	Australia: No current concerns. Codex MRL: 4 mg/Kg
IMIDACLOPRID	4A	PER10918 for the control of greenhouse whitefly and aphids	Australia: APVMA: <a href="#">Currently under review</a> . Proposed regulatory decisions expected between December2025 to October2026. Permit PER10918 Expiry date: 31/10/2026 EU: Not approved Canada: Very few uses allowed in greenhouses and seed treatment. USA: Under Registration Review (scheduled)

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R1	Short-term: Critical concern over retaining access < 1 year
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ACTIVE CONSTITUENT	MoA Group	Pest	Risks and Comments
MALATHION	1B	Aphids, Cabbage moth, Cabbage white butterfly, Green vegetable bug, Jassids, Leaf hoppers, Rutherglen bug, Thrips	Australia: The final regulatory decision was published in an <a href="#">APVMA Special Gazette on 2 May 2024</a> . 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)
PHORATE	1B	Aphids; Carrot aphid; Jassids; Thrips	Australia: APVMA reconsideration. <a href="#">Prioritised to be commenced by 2026</a> . EU: Not approved Canada: In re-evaluation USA: Under Registration Review (scheduled)
PROPARGITE	12C	Two-spotted mites; Spider mites	Australia: <a href="#">APVMA reconsideration. Prioritised to be commenced by 2029</a> . EU: Not approved Canada: Cancelled USA: Under Registration Review (scheduled)
PYRIPROXYFEN	7C	Ants	Australia: No current concerns.
SPINETORAM	5	Caterpillars; Helicoverpa; Lightbrown apple moth; Loopers; Potato moth (Leafminer)	Australia: No current concerns. EU: Not approved UK: Withdrawn (2024). Canada: In re-evaluation
SPINETORAM	5	Leaf miners	Australia: No current concerns. EU: Not approved UK: Withdrawn (2024). Canada: In re-evaluation
SPINETORAM	5	PER94451 - Tomato Potato Psyllid ( <i>Bactericera cockerelli</i> )	Australia: No current concerns. Permit PER94451 Expiry date: 31/07/2027 EU: Not approved UK: Withdrawn (2024). Canada: In re-evaluation

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ACTIVE CONSTITUENT	MoA Group	Pest	Risks and Comments
SPINOSAD	5	PER94331 - Dipteran leaf miners	Australia: No current concerns. Permit PER94331 Expiry date: 30/04/2026 Canada: In re-evaluation
SPODOPTERA FRUGIPERDA NPV		PER94331- Fall Armyworm	Australia: No current concerns Permit PER90820 Expiry date: 31/03/2027
SULFOXAFLOX	4C	Green peach aphid	Australia: No current concerns. Codex MRL: 0.05 mg/Kg
TRICHLORFON	1B	Cabbage white butterfly; Cabbage moth; Green vegetable bug; Rutherglen bug	Australia: <a href="#">APVMA nominated for reconsideration after 2029.</a> EU: Not approved Canada: Cancelled USA: Under Registration Review (scheduled)

### FUNGICIDES – Disease Control

Active Constituent	MoA Group	Pest	Risks And Comments
AZOXYSTROBIN	11	Black rot; Sclerotinia rot; Alternaria leaf spot; Leaf spot  Permit PER93402 for Leaf blight; Powdery mildew	Australia: No current concerns. Canada: In re-evaluation  Permit PER93402 Expiry date: 31/05/2027
BOSCALID	7	Sclerotinia rot	Australia: No current concerns. Canada: In re-evaluation
CHLOROTHALONIL	M5	Alternaria leaf spot	Australia: APVMA reconsideration. <a href="#">Prioritised to be commenced by 2028.</a> EU: Not approved Canada: In re-evaluation USA: Under Registration Review (scheduled)

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COPPER	M1	Alternaria leaf spot; Cercospora leaf spot; Leaf diseases/spots; Leaf spot; Septoria leaf spot	Australia: No current concerns.
DIFENOCONAZOLE	3	Alternaria leaf spot; Leaf spot; Powdery mildew	Australia: <a href="#">APVMA nominated for reconsideration after 2029.</a> Permit PER93402 Expiry date: 31/05/2027 Codex MRL: 0.2 mg/Kg EU: Approved, candidate for substitution. Canada: In re-evaluation
IODINE	M	Postharvest bactericide	Australia: No current concerns. Canada: Cancelled
IPRODIONE	2	Suppression only: Sclerotinia, Black rot & Grey Mould	Australia: No current concerns. Permit PER84955 Expiry date: 30/11/2027 EU: Not approved USA: Under Registration Review (scheduled)
MANCOZEB	M3	Alternaria leaf spot; Cercospora leaf spot; Leaf diseases/spots; Septoria leaf spot; Powdery mildew	Australia: APVMA reconsideration. <a href="#">Prioritised to be commenced by 2027.</a> EU: Not approved UK: Withdrawn (2024). USA: Under Registration Review (scheduled)

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Active Constituent	MoA Group	Pest	Risks And Comments
MANCOZEB + METALAXYL	M3 + 4	Permit PER14045 for the control of <i>Phytophthora</i> soil fungus (Dieback); Pythium diseases: soil borne	<p>Permit PER14045 Expiry date: 31/03/2027</p> <p>MANCOZEB Australia: APVMA reconsideration. <a href="#">Prioritised to be commenced by 2027.</a> EU: Not approved UK: Withdrawn (2024). USA: Under Registration Review (scheduled)</p> <p>METALAXYL Australia: No current concerns. Codex MRL: 0.02 mg/Kg EU: Approved, candidate for substitution. Canada: In re-evaluation</p>
METALAXYL	4	Damping off; Phytophthora soil fungus (Dieback); Pythium diseases: soil borne	<p>Australia: No current concerns. Codex MRL: 0.02 mg/Kg EU: Approved, candidate for substitution. Canada: In re-evaluation</p>
METIRAM	M3	Alternaria leaf spot; Leaf spot	<p>Australia: APVMA reconsideration. <a href="#">Prioritised to be commenced by 2027.</a> EU: Not approved Canada: Only approved for foliar applications in potato crops.</p>
PENTHIOPYRAD	7	Alternaria leaf spot; Powdery mildew	<p>Australia: No current concerns. Codex MRL: 0.6 mg/Kg</p>
PHOSPHOROUS (PHOSPHONIC) ACID	P07 (33)	Damping off and downy mildew	<p>Australia: No current concerns. Permit PER14184 Expiry date: 31/03/2030</p>

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Active Constituent	MoA Group	Pest	Risks And Comments
PYDIFLUMETOFEN   DIFENOCONAZOLE	7 + 3	Early blight; Powdery mildew; Cercospora leaf spot	<p>DIFENOCONAZOLE</p> <p>Australia: <a href="#">APVMA nominated for reconsideration after 2029.</a></p> <p>Codex MRL: 0.2 mg/Kg</p> <p>EU: Approved, candidate for substitution.</p> <p>Canada: In re-evaluation</p> <p>PYDIFLUMETOFEN</p> <p>Australia: No current concerns.</p> <p>EU: Pending</p> <p>Canada: In re-evaluation</p>
TEBUCONAZOLE	3	Powdery mildew ( <i>Erysiphe heraclei</i> ) suppression only	<p>Australia: APVMA: Removed from nomination list - maintain watching brief</p> <p>Codex MRL: 0.4 mg/Kg</p> <p>EU: Approved, candidate for substitution.</p> <p>Canada: In re-evaluation</p> <p>USA: Under Registration Review (scheduled)</p>
THIRAM	M3	Damping off	<p>Australia: APVMA reconsideration. <a href="#">Prioritised to be commenced by 2027.</a></p> <p>EU: Not approved</p> <p>Canada: Only approved for seed treatment.</p>
ZINEB	M3	Alternaria leaf spot; Cercospora leaf spot	<p>Australia: APVMA reconsideration. <a href="#">Prioritised to be commenced by 2027.</a></p> <p>EU: Not approved</p> <p>Canada: Cancelled</p>
DIFENOCONAZOLE	3	Leaf blight; Powdery mildew	<p>Australia: <a href="#">APVMA nominated for reconsideration after 2029.</a></p> <p>Codex MRL: 0.2 mg/Kg</p> <p>EU: Approved, candidate for substitution.</p> <p>Canada: In re-evaluation</p>



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### HERBICIDES – Weed Control

Active Constituent	MoA Group	Risks and Comments
CLETHODIM	1	Australia: No current concerns. Permit PER82459 Expiry date: 30/09/2026
DIQUAT	22	Australia: APAPVMA: <a href="#">Currently under review</a> . Publication of the final regulatory decision is now expected in Mid 2026. EU: Not approved USA: No agricultural uses allowed. Aquatic herbicide.
FLUAZIFOP-P PRESENT AS THE BUTYL ESTER	1	Australia: <a href="#">APVMA Nominated for targeted spray drift reconsideration</a> Canada: Cancelled
GLYPHOSATE	9	Australia: <a href="#">APVMA Nominated for targeted spray drift reconsideration</a> Permit PER13305 Expiry date: 30/11/2029 USA: Under Registration Review (scheduled)
LINURON	5	Australia: No current concerns. EU: Not approved
METRIBUZIN	5	Australia: No current concerns. Permit PER80169 Expiry date: 28/02/2029 EU: Not approved Canada: In re-evaluation USA: Under Registration Review (scheduled)
PARAQUAT	22	Australia: APVMA: <a href="#">Currently under review</a> . 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

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Active Constituent	MoA Group	Risks and Comments
PENDIMETHALIN	3	Australia: No current concerns. Codex MRL: 0.5 mg/Kg EU: Approved, candidate for substitution. Canada: In re-evaluation USA: Under Registration Review (scheduled)
PROMETRYN	5	Australia: No current concerns. Permit PER12048 Expiry date: 30/04/2030 EU: Not approved
QUIZALOFOP-ETHYL	1	Australia: No current concerns. Canada: Cancelled
SETHOXYDIM	1	Australia: No current concerns. EU: Not approved Canada: Phase-Out
TRIFLURALIN	3	Australia: No current concerns. EU: Not approved Canada: In re-evaluation USA: Under Registration Review (scheduled)
QUIZALOFOP-P-TEFURYL	1	Australia: No current concerns.

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### FUMIGANTS – Mixed Function

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.

### PLANT REGULATORS AND OTHERS – Plant regulators, post-harvest treatments, rodenticides and others.

Active Constituent	Use	Risks and Comments
1-METHYLCYCLOPROPENE	Improve fruit quality post-harvest.	Australia: No current concerns

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