

## CARROTS

### Agrichemical Regulatory Risk Assessment

May 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Regulatory pressures on agrichemicals are increasing globally, with many being either restricted or withdrawn from use.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.

## Carrots - Agrichemical Regulatory Risk Assessment

<b>R1</b>	<b>Short-term risk: Critical concern over retaining access &lt; 1 year</b>
<b>R2</b>	<b>Medium-term risk: Maintaining access of significant concern &lt;2-5 years</b>
<b>R3</b>	<b>Long-term risk: Potential issues associated with use – Monitoring required &lt; 5 years</b>
<b>R4</b>	<b>No current risk / concerns</b>

Blue text = new APVMA approved uses

### INSECTICIDES/MITICIDES - Insect and other Pests Control

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.   EU: Not approved   UK: No registrations   Canada: No current review   USA: Approved
AFIDOPYROPEN	9D	Aphids including green peach aphid and carrot aphid	Australia: No current concerns. Permit PER88430 Expiry date: 31/01/2028   EU: Not approved   UK: No registrations   Canada: No current review   USA: Approved
CHLORPYRIFOS	1B	Black field cricket; Cutworms; Field crickets; Lightbrown apple moth; Mole crickets; Spotted vegetable weevil; Spur-throated locust; Vegetable weevil; Wingless grasshopper; Australian plague locust ;Migratory locust	Australia: The APVMA issued a final decision on 10 September 2024. Use in carrots was cancelled. Products with previously approved labels must not be possessed or used after September 30, 2025. The final decision was published in the <a href="#">APVMA Official Gazette on October 3, 2024</a> . Codex: All Codex MRLs deleted   EU: Not approved   Canada: All uses cancelled 2023   USA: Upcoming review
CYROMAZINE	17	Liriomyza species, including Vegetable Leafminer; Serpentine Leafminer (PER81867)	Australia: Reviewed in 2014. No current concerns. PER81867 expires 30 September 2026   EU: Not approved   Canada: No current review
DIAZINON	1B	Caterpillar, Cutworms	Australia: APVMA made a <a href="#">Final Decision on September 2024</a> . Agricultural uses were not supported during the review. NO use of cancelled labels after 10 September 2025.   EU: Not approved   Canada: No current review   USA: Upcoming review
EMAMECTIN	6	Cabbage white butterfly; Cluster caterpillar; Diamondback moth; Helicoverpa; Loopers	Australia: <a href="#">APVMA nominated for reconsideration and for targeted spray drift reconsideration</a>   EU: Approved. Candidate for substitution.   UK: Withdrawn. Expiry date: 30/11/2024   Canada: No current review
FIPRONIL	2B	Permit PER86665 for the control of White fringed weevil and Symphylids	Australia: APVMA: <a href="#">Currently under review</a> . Proposed regulatory decision due April 2026. Permit PER86665 Expiry date: 31/12/2025   EU: Not approved   USA: Upcoming review
FLUAZAINDOLIZINE	N-UN	Root Knot Nematode (Meloidogyne spp.)	Australia: No current concerns. Codex MRL: 0.4 mg/Kg   EU: Pending   Canada: No current review

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Active Constituent	MoA Group	Pest	Risks and Comments
FLUBENDIAMIDE	28	Cabbage white butterfly; Cluster caterpillar; Diamondback (Cabbage) moth; Helicoverpa; Potato moth (Leafminer)	Australia: No current concerns.   EU: Not approved   UK: Withdrawn. Expiry date: 30/11/2024   Canada: No current review   USA: No registrations
FLUENSULFONE		Root knot nematode	Australia: No current concerns.
IMIDACLOPRID	4A	Greenhouse whitefly and aphids	Australia: APVMA: <a href="#">Currently under review. Proposed regulatory decisions expected between Dec. 2025 to Oct. 2026.</a> Permit PER10918 Expiry date: 31/10/2026 Codex MRL: 0.5 mg/Kg   EU: Not approved   Canada: No current review   USA: Upcoming review
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 <a href="#">APVMA Special Gazette on 2 May 2024</a> . Labels containing malathion as an active constituent have been varied. Products bearing previously approved labels must not be supplied after 1 May 2026.   EU: Approved   UK: Withdrawn. Expiry date: 30/04/2025   Canada: In review   USA: Upcoming review
PHORATE	1B	Aphids; Carrot aphid; Jassids; Thrips	Australia: <a href="#">APVMA reconsideration. Prioritised to be commenced in 2026.</a>   EU: Not approved   Canada: In review   USA: Upcoming review
PROPARGITE	12C	Two-spotted mites; Spider mites	Australia: <a href="#">APVMA reconsideration. Prioritised to be commenced in 2029</a>   EU: Not approved   Canada: No current review   USA: Upcoming review
PYRIPROXYFEN	7C	Ants	Australia: No current concerns.   EU: Approved   UK: Approved   Canada: No current review
SPINETORAM	5	Caterpillars; Helicoverpa; Lightbrown apple moth; Loopers; Potato moth (Leafminer)  Permit PER94451 for the control of Leaf miners.  Permit PER84757 for the control of Tomato Potato Psyllid ( <i>Bactericera cockerelli</i> )	Australia: No current concerns. Permit PER94451 Expiry date: 31/07/2027.   EU: Not approved   UK: Withdrawn. Expiry date: 30/09/2024   Canada: In review
SPINOSAD	5	Dipteran leaf miners	Australia: Reviewed in 2014. No current concerns. Permit PER94331 Expiry date: 30/04/2026   EU: Approved   UK: Approved   Canada: In review

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SPODOPTERA FRUGIPERDA NPV	--	Permit PER 90820 for the control of 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   EU: Approved   UK: Approved   Canada: No current review
TRICHLORFON	1B	Cabbage white butterfly; Cabbage moth; Green vegetable bug; Rutherglen bug	Australia: <a href="#">APVMA nominated for reconsideration</a>   EU: Not approved   Canada: No current review   USA: Upcoming review

### FUNGICIDES – Disease Control

Active Constituent	MoA Group	Pest	Risks and Comments
AZOXYSTROBIN	11	Black rot; Powdery mildew; Sclerotinia rot; Alternaria leaf spot; Leaf spot	Australia: No current concerns. Codex MRL: 1 mg/Kg   EU: Approved   UK: Approved   Canada: In review
AZOXYSTROBIN   DIFENOCONAZOLE	11 + 3	Leaf blight; Powdery mildew	<p>AZOXYSTROBIN</p> <p>Australia: No current concerns. Codex MRL: 1 mg/Kg   EU: Approved   UK: Approved   Canada: In review  </p> <p>DIFENOCONAZOLE</p> <p>Australia: <a href="#">APVMA nominated for reconsideration</a> Codex MRL: 0.2 mg/Kg   EU: Approved. Candidate for substitution.   UK: Approved   Canada: In review  </p>
BOSCALID	7	Sclerotinia rot	Australia: No current concerns. Codex MRL: 2 mg/Kg   EU: Approved   UK: Approved   Canada: In review
CHLOROTHALONIL	M5	Alternaria leaf spot	Australia: <a href="#">APVMA reconsideration. Prioritised to be commenced in 2028</a> . Codex MRL: 0.3 mg/Kg   EU: Not approved   Canada: In review   USA: Upcoming review
COPPER	M1	Alternaria leaf spot; Cercospora leaf spot; Leaf diseases/spots; Leaf spot; Septoria leaf spot	Australia: No current concerns.   EU: Approved. Candidate for substitution.

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Active Constituent	MoA Group	Pest	Risks and Comments
DIFENOCONAZOLE	3	Alternaria leaf spot; Leaf spot; Powdery mildew	Australia: <a href="#">APVMA nominated for reconsideration</a> . Codex MRL: 0.2 mg/Kg   EU: Approved Candidate for substitution.   UK: Approved   Canada: In review
IODINE	M	Postharvest bactericide	Australia: No current concerns.   Canada: No current review
IPRODIONE	2	Black rot ( <i>Alternaria radicina</i> ) Suppression only	Australia: No current concerns. Permit PER84955 Expiry date: 30/11/2027   EU: Not approved   Canada: No current review   USA: Upcoming review
MANCOZEB	M3	Alternaria leaf spot; Cercospora leaf spot; Leaf diseases/spots; Septoria leaf spot; Powdery mildew	Australia: <a href="#">APVMA reconsideration. Prioritised to be commenced in 2027.</a>   EU: Not approved   UK: Withdrawn. Expiry date: 31/05/2024   Canada: Most of uses cancelled   USA: Upcoming review
MANCOZEB + METALAXYL	M3 + 4	Permit PER14045 for the control of Phytophthora soil fungus (Dieback); Pythium diseases: soil borne	MANCOZEB Australia: <a href="#">APVMA reconsideration. Prioritised to be commenced in 2027.</a>   EU: Not approved   UK: Withdrawn. Expiry date: 31/05/2024   Canada: No current review   USA: Upcoming review    METALAXYL Australia: No current concerns. Codex MRL: 0.02 mg/Kg   EU: Approved   UK: Approved   Canada: In review   USA:
METALAXYL	4	Damping off; Phytophthora soil fungus (Dieback); Pythium diseases: soil borne	Australia: No current concerns. Codex MRL: 0.02 mg/Kg   EU: Approved. Candidate for substitution.   UK: Approved   Canada: In review
METIRAM	M3	Alternaria leaf spot; Leaf spot	Australia: APVMA reconsideration. <a href="#">Prioritised to be commenced in 2027.</a>   EU: Not approved   UK: Approved   Canada: Cancellation of foliar uses proposed
PENTHIOPYRAD	7	Alternaria leaf spot; Powdery mildew	Australia: No current concerns. Codex MRL: 0.6 mg/Kg   EU: Approved   UK: Approved   Canada: No current review
PHOSPHOROUS (PHOSPHONIC) ACID	P07 (33)	Damping off and downy mildew	Australia: No current concerns. Permit PER14184 Expiry date: 31/03/2030
<a href="#">PYDIFLUMETOFEN</a>   <a href="#">DIFENOCONAZOLE</a>	<a href="#">7</a> + <a href="#">3</a>	<a href="#">Early blight; Powdery mildew; Cercospora leaf spot</a>	<a href="#">PYDIFLUMETOFEN</a> Australia: No current concerns.   EU: Pending   UK: Approved   Canada: In review

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Active Constituent	MoA Group	Pest	Risks and Comments
			DIFENOCONAZOLE Australia: <a href="#">APVMA nominated for reconsideration</a> Codex MRL: 0.2 mg/Kg   EU: Approved   UK: Approved   Canada: In review
TEBUCONAZOLE	3	Powdery mildew ( <i>Erysiphe heraclei</i> ) suppression only	Australia: APVMA: Removed from nomination list - maintain watching brief Codex MRL: 0.4 mg/Kg   EU: Approved. Candidate for substitution.   UK: Approved   Canada: In review   USA: Upcoming review
<i>Streptomyces lydicus</i> WYEC108	BM02	Powdery mildew	Australia: No current concerns.
THIRAM	M3	Damping off	Australia: <a href="#">APVMA reconsideration. Prioritised to be commenced in 2027</a> . Codex: To be reviewed.   EU: Not approved   Canada: No current review. Cancelled for foliar uses.
ZINEB	M3	Alternaria leaf spot; Cercospora leaf spot	Australia: <a href="#">APVMA reconsideration. Prioritised to be commenced in 2027</a> . Codex: To be reviewed.   EU: Not approved   Canada: No current review

### HERBICIDES – Weed Control

Active Constituent*	MoA Group	Risks and Comments
CLETHODIM	1	Australia: No current concerns. Permit PER82459 Expiry date: 30/09/2026   EU: Approved   UK: Approved   Canada: No current review
DIQUAT (Root & Tuber Vegetables)	22	<a href="#">APVMA proposed decisions</a> published July 2024. Only uses up to 283gai/ha to be kept. Publication of the final regulatory decision is expected in December 2025. Codex: No MRLs. EU: Not approved (withdrawn in 2018). UK: Not approved. USA: Registered (under review).
FLUAZIFOP-P PRESENT AS THE BUTYL ESTER	1	Australia: <a href="#">APVMA nominated for reconsideration and for targeted spray drift reconsideration</a> Codex MRL: 0.6 mg/Kg   EU: Approved

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GLYPHOSATE	9	Australia: <a href="#">APVMA nominated for reconsideration and for targeted spray drift reconsideration</a> Permit PER13305 Expiry date: 30/11/2029. GLYPHOSATE present as the ISOPROPYLAMINE SALT.   EU: Approved   UK: Approved   Canada: No current review   USA: Upcoming review
LINURON	5	Australia: No current concerns.   EU: Not approved   Canada: No current review   No Codex MRLs
METRIBUZIN	5	Australia: Permit PER80169 Expiry date: 28/02/2029   EU: Not approved. Candidate for substitution.   UK: Approved   Canada: In review   USA: Upcoming review
PARAQUAT (Root & Tuber Vegetables)	22	APVMA proposed decisions published July 2024. Only uses up to 231gai/ha to be kept. Publication of the final regulatory decision is expected in December 2025. Codex: MRL for Root and tuber vegetables - 0.05 mg/Kg. EU: Not approved (withdrawn in 2018). UK: Not approved. USA: Registered (under review).
PENDIMETHALIN	3	Australia: No current concerns. Codex MRL: 0.5 mg/Kg   EU: Approved   UK: Approved   Canada: In review   USA: Upcoming review
PROMETRYN	5	Australia: No current concerns.   EU: Not approved
QUIZALOFOP-P-ETHYL	1	Australia: No current concerns.   EU: Approved. Candidate for substitution.   UK: Approved   Canada: No current review
SETHOXYDIM	1	Australia: No current concerns.   EU: Not approved   Canada: No current review
TRIFLURALIN	3	Australia: No current concerns   EU: Not approved   Canada: No current review   USA: Upcoming review

\* Chlorthal-dimethyl registrations cancelled by the APVMA October 9, 2024 due to significant toxicological concerns. No phase out period applies. No use is allowed.

### PLANT GROWTH REGULATORS – and others

Active Constituent	Use	Risks and Comments
1-METHYLCYCLOPROPENE	Postharvest treatment	Australia: No current concerns.   EU: Approved   UK: Approved   Canada: No current review

## Carrots - Agrichemical Regulatory Risk Assessment

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