

Pumpkin Agrichemical Regulatory Risk Assessment

June 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Regulatory pressures on agrichemicals are increasing globally, with many being either restricted or withdrawn from use.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 pumpkins in Australia as well as assisting with any current initiatives aimed at identifying and addressing pest management deficiencies.

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

Blue text = new APVMA approved uses

INSECTICIDES/MITICIDES/NEMATOCIDES - Insect and other Pests Control

Active Constituent	MoA Group	Pest	Risks and Comments
ABAMECTIN	6	Root-knot nematode	Australia: APVMA nominated for reconsideration and spray drift assessment EU: Approved Canada: In review
AFIDOPYROPEN	9D	Cabbage aphid Cotton / melon aphid Currant lettuce aphid Green peach aphid Silverleaf (Poinsettia) whitefly	Australia: No current concerns. Codex MRL: 0.05 mg/Kg EU: Not approved UK: No registrations Canada: No current review USA: Approved
ALPHA-CYPERMETHRIN	3A	Permit PER80138 for the control of Cucumber fruit fly	Australia: APVMA nominated for reconsideration after 2029 Permit PER80138 Expiry date: 31/12/2029 Codex MRL: 0.07 mg/Kg EU: Not approved Canada: No current review
<i>Bacillus thuringiensis</i>	11A		Australia: No current concerns. USA: Review upcoming
BIFENAZATE	20D	Bryobia mite Two-spotted (Red spider) mite	Australia: No current concerns. Codex MRL: 0.5 mg/Kg EU: Approved UK: Approved Canada: In review

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Active Constituent	MoA Group	Pest	Risks and Comments
BIFENTHRIN	3A	Brown marmorated stink bug Caterpillars Cucumber moth Helicoverpa Mites Moths Silverleaf (Poinsettia) whitefly Whiteflies Yellow spotted stink bug	Australia: APVMA nominated for reconsideration after 2029 EU: Not approved Canada: No current review
BUPROFEZIN	16	Permit PER82467 for the control of Greenhouse whitefly and Bemisia spp.	Australia: No current concerns. Permit PER82467 Expiry date: 31/03/2030 Codex MRL: 0.7 mg/Kg EU: Approved UK: Approved Canada: No current review
CARBARYL	1A	28-spotted potato ladybird Armyworms Cucurbit stem borer Cutworms European earwig Green vegetable bug Helicoverpa Leaf eating ladybirds Potato moth (Leafminer) Pumpkin beetle Rutherglen bug Wingless grasshopper	Australia: No current concerns. EU: Not approved Canada: In review USA: Review upcoming Codex: No Codex MRLs
CHLORANTRANILIPROLE	28	Cucumber moth Helicoverpa	Australia: No current concerns. Codex MRL: 0.3 mg/Kg EU: Approved UK: Approved Canada: In review

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Active Constituent	MoA Group	Pest	Risks and Comments
CHLORPYRIFOS	1B	Permit PER11768 for the control of African Black Beetle	Australia: The APVMA issued a final decision in September 2024. All cucurbit uses were cancelled. Products with previously approved labels must not be possessed or used after September 30, 2025. The final decision was published in the APVMA Official Gazette on October 3, 2024 . Codex: All Codex MRLs deleted EU: Not approved Canada: All uses cancelled 2023 USA: Upcoming review
CLITORIA TERNATEA EXTRACT	-	Silverleaf whitefly (biotype b)	Australia: No current concerns.
CLOTHIANIDIN	4A	Cucumber Fruit Fly	Australia: APVMA: Currently under review. Proposed regulatory decisions expected between Dec. 2025 to Oct. 2026. Permit PER95266 Expiry date: 31/01/2026 Codex MRL: 0.02 mg/Kg EU: Not approved Canada: In review USA: Review upcoming
CYANTRANILIPROLE	28	Cotton / melon aphid Cucumber moth Helicoverpa Silverleaf (Poinsettia) whitefly Western flower thrips Permit PER93849 for the control of Liriomyza leafminers	Australia: No current concerns. Codex MRL: 0.3 mg/Kg EU: Approved UK: Approved Canada: No current review Permit PER93849 Expiry date: 31/12/2026

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CYROMAZINE	17	Permit PER81867 for the control of Liriomyza species	Australia: Reviewed in 2014. No current concerns. Permit PER81867 Expiry date: 30/09/2026 EU: Not approved Canada: No current review
DIAZINON	1B	Caterpillars Cutworms Thrips	Australia: APVMA made a Final Decision on 10 September 2024 . Agricultural uses were not supported during the review. Approved use on all vegetables ceases 10 September 2025. Codex: All MRLs deleted EU: Not approved Canada: No current review USA: Review upcoming
DIMPROPYRIDAZ	36	Cotton/melon aphid Greenhouse whitefly Silverleaf whitefly	Australia: No current concerns. EU: Pending
EMAMECTIN	6	Cluster caterpillar Cucumber moth Helicoverpa Tomato grub	Australia: APVMA nominated for reconsideration and for targeted spray drift reconsideration Codex MRL: 0.007 mg/Kg EU: Approved, candidate for substitution. UK: Withdrawn. Expiry date: 30/11/2024 Canada: No current review
ETOXAZOLE	10B	Permit PER82460 for the control of TWO SPOTTED MITES AND tomato RED SPIDER MITE	Australia: No current concerns. Permit PER82460 Expiry date: 31/05/2028 EU: Approved, candidate for substitution. UK: Approved Canada: No current review
FLONICAMID	29	Cotton / melon aphid Green peach aphid Silverleaf (Poinsettia) whitefly	Australia: No current concerns. Codex MRL: 0.2 mg/Kg EU: Approved
FLUAZAINDOLIZINE	N-UN	Root-knot nematodes	Australia: No current concerns. Codex MRL: 0.1 mg/Kg EU: Pending

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FLUBENDIAMIDE	28	Cluster caterpillar Helicoverpa	Australia: No current concerns. Codex MRL: 0.2 mg/Kg EU: Not approved UK: Withdrawn. Expiry date: 30/11/2024 USA: No registrations
FLUENSULFONE	5	Root-knot nematodes	Australia: No current concerns.
FLUPYRADIFURONE	4D	Greenhouse whitefly Silverleaf (Poinsettia) whitefly Cotton / melon aphid Green peach aphid	Australia: No current concerns. EU: Approved UK: Approved
HELICOVERPA ARMIGERA NPV	31	Helicoverpa	Australia: No current concerns. EU: Approved
HEXYTHIAZOX	10A	Permit PER95394 for the control of Tomato spider mite, Twospotted mite, Broad mite, Tomato russet mite	Australia: No current concerns. Permit PER95394 Expiry date: 30/09/2029 Codex MRL: 0.05 mg/Kg EU: Approved UK: Approved Canada: No current review
IMIDACLOPRID	4A	Green peach aphid Silverleaf (Poinsettia) whitefly	Australia: APVMA: Currently under review. Proposed regulatory decisions expected between Dec. 2025 to Oct. 2026. EU: Not approved Canada: Field uses cancelled or amended USA: Re-registration with risk mitigation measures. Review upcoming

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Active Constituent	MoA Group	Pest	Risks and Comments
MALATHION	1B	28-spotted potato ladybird Aphids Australian plague locust Green vegetable bug Jassids Leafhoppers Migratory locust Pumpkin beetle Redlegged earth mite Rutherglen bug Spur-throated locust	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. EU: Approved UK: Withdrawn. Expiry date: 30/04/2025 Canada: In review USA: Review upcoming Codex: No MRLS
METHOMYL	1A	Helicoverpa spp. Cucumber moth Cluster caterpillar Loopers Webworm Rutherglen bug Thrips including WFT	Australia: APVMA reconsideration. Prioritised to be commenced by 2026 . Permit PER82428 Expiry date: 31/01/2029 Codex MRL: 0.1 mg/Kg EU: Not approved Canada: In review USA: Review upcoming
PARAFFINIC OIL	--	Permit PER93806 for the control of Melon thrip (Postharvest treatment of produce destined for export)	Australia: No current concerns. Permit PER93806 Expiry date: 31/07/2027
PETROLEUM OIL	UN	Aphids Leafhoppers Mites Thrips Permit PER12221 for the control of Greenhouse whitefly, Sweet potato whitefly, Silverleaf whitefly and Whitefly.	Australia: No current concerns. Permit PER12221 Expiry date: 30/09/2027 EU: Not approved

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Active Constituent	MoA Group	Pest	Risks and Comments
PIRIMICARB	1A	Aphids	Australia: No current concerns. Codex MRL: 1 mg/Kg EU: Approved, candidate for substitution. UK: Approved Canada: No current review USA: No registrations
PYRETHRINS	3A	Ants Aphids Cabbage white butterfly Caterpillars Diamondback (Cabbage) moth Earwigs Flies Leafhoppers Mealybugs Scale insects Thrips Two-spotted (Red spider) mite Whiteflies	Australia: No current concerns. Codex MRL: 0.05 mg/Kg EU: Approved UK: Approved Canada: No current review
PYRIPROXYFEN	7C	Greenhouse whitefly Silverleaf (Poinsettia) whitefly	Australia: No current concerns. EU: Approved UK: Approved Canada: No current review
SPINETORAM	5	Cabbage white butterfly Caterpillars Cucumber moth Helicoverpa Melon thrips Western flower thrips Permit PER94451 for the control of Leaf miners	Australia: No current concerns. Permit PER94451 Expiry date: 31/07/2027 EU: Not approved UK: Withdrawn. Expiry date: 30/09/2024 Canada: In review

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Active Constituent	MoA Group	Pest	Risks and Comments
SPINOSAD	5	Cucumber moth Helicoverpa Western flower thrips Permit PER89870 for the control of Fall Armyworm Permit PER94331 for the control of Dipteran leaf miners	Australia: Reviewed in 2014. No current concerns. Permit PER89870 Expiry date: 31/07/2025 Permit PER94331 Expiry date: 30/04/2026 Codex MRL: 0.2 mg/Kg EU: Approved UK: Approved Canada: In review
SPIROTETRAMAT	23	Cotton / melon aphid Green peach aphid Silverleaf (Poinsettia) whitefly	Australia: No current concerns. Codex MRL: 0.2 mg/Kg EU: Not approved UK: Approved Canada: In review
SULFOXAFLOX	4C	Cotton / melon aphid Green peach aphid Greenhouse whitefly	Australia: No current concerns. Codex MRL: 0.5 mg/Kg EU: Approved UK: Approved Canada: No current review
TRICHLORFON	1B	Cutworms	Australia: APVMA nominated for reconsideration after 2029 EU: Not approved Canada: No current review USA: Review upcoming

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FUNGICIDES – Disease Control

Active Constituent	MoA Group	Pest	Risks and Comments
<i>Aureobasidium pullulans</i>	--	Grey mould	Australia: No current concerns. EU: Approved
AZOXYSTROBIN	11	Downy mildew Gummy stem blight Powdery mildew	Australia: No current concerns. Codex MRL: 1 mg/Kg EU: Approved UK: Approved Canada: In review
AZOXYSTROBIN DIFENOCONAZOLE	11 + 3	Powdery mildew	Permit PER93402 Expiry date: 31/05/2027 AZOXYSTROBIN Australia: No current concerns. Codex MRL: 1 mg/Kg EU: Approved UK: Approved Canada: In review DIFENOCONAZOLE Australia: APVMA nominated for reconsideration after 2029 EU: Approved, candidate for substitution. UK: Approved Canada: In review

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Active Constituent	MoA Group	Pest	Risks and Comments
BOSCALID KRESOXIM-METHYL	7 + 11	Powdery mildew	<p>BOSCALID Australia: No current concerns. Codex MRL: 3 mg/Kg EU: Approved UK: Approved Canada: In review</p> <p>KRESOXIM-METHYL Australia: No current concerns. Codex MRL: 0.5 mg/Kg EU: Approved UK: Approved Canada: No current review</p>
BUPIRIMATE	8	Powdery mildew	<p>Australia: No current concerns. EU: Approved UK: Approved</p>
CHLOROTHALONIL	M5	Alternaria leaf blight Anthracnose Downy mildew Gummy stem blight Powdery mildew Rhizoctonia ground rot Target leafspot	<p>Australia: APVMA reconsideration. Prioritised to be commenced by 2028. EU: Not approved Canada: In review USA: Review upcoming</p>
COPPER	M1	Angular leaf spot Anthracnose Bacterial spot Downy mildew Gummy stem blight Late (Irish) blight Powdery mildew	<p>Australia: No current concerns. EU: Approved, candidate for substitution. Canada: No current review</p>

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Active Constituent	MoA Group	Pest	Risks and Comments
CYFLUFENAMID	U6	Powdery mildew	Australia: No current concerns. EU: Approved UK: Approved Canada: No current review
DIMETHOMORPH	40	Alternaria leaf blight Anthracnose Downy mildew Gummy stem blight Septoria spot	Australia: No current concerns. Codex MRL: 0.5 mg/Kg EU: Not approved UK: Approved Canada: No current review USA:
DIMETHOMORPH AMETOCTRADIN	40 + 45	Downy mildew	DIMETHOMORPH Australia: No current concerns. Codex MRL: 0.5 mg/Kg EU: Not approved UK: Approved Canada: No current review AMETOCTRADIN Australia: No current concerns. Codex MRL: 3 mg/Kg EU: Approved UK: Approved Canada: No current review
FLORYLPICOXAMID	21	Powdery mildew	Australia: No current concerns. Codex MRL: 0.4 mg/Kg EU: Pending Canada: No current review
GUAZATINE ACETATES	M7	Fusarium fruit rot Pink mould rot Rhizopus rot	Australia: No current concerns. EU: Not approved

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Active Constituent	MoA Group	Pest	Risks and Comments
HYDROGEN PEROXIDE	#N/A	Hairy root or crazy root (protected cropping) (unregistered product)	Australia: Permit PER93702 Expiry date: 28/02/2027 UK: Approved Canada: No current review
HYDROGEN PEROXIDE PEROXYACETIC ACID	M	Powdery mildew	Australia: No current concerns. EU: Approved
IODINE	M	Bactericide Fungi	Australia: No current concerns. Canada: No current review Codex NO MRLs
MANCOZEB	M3	Alternaria leaf blight Anthracnose Downy mildew Gummy stem blight Powdery mildew Septoria spot	Australia: APVMA reconsideration. Prioritised to be commenced by 2027. EU: Not approved UK: Withdrawn. Expiry date: 31/05/2024 Canada: Most of uses cancelled USA: Review upcoming
MANCOZEB METALAXYL	M3 + 4	Downy Mildew QLD only: Anthracnose, Gummy Stem Blight, Alternaria Leaf Spot and Septoria Spot.	MANCOZEB Australia: APVMA reconsideration. Prioritised to be commenced by 2027. METALAXYL Australia: No current concerns. EU: Approved, candidate for substitution. UK: Approved Canada: In review
METALAXYL	4	Alternaria leaf blight Anthracnose Damping off Downy mildew Gummy stem blight Phytophthora soil fungus (Dieback)	Australia: No current concerns. EU: Approved, candidate for substitution. UK: Approved Canada: In review

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Active Constituent	MoA Group	Pest	Risks and Comments
METIRAM	M3	Downy mildew Gummy stem blight	Australia: APVMA reconsideration. Prioritised to be commenced by 2027. EU: Not approved UK: Approved Canada: Foliar uses other than potato were cancelled
METRAFENONE	50	Powdery mildew	Australia: No current concerns. Codex MRL: 0.5 mg/Kg EU: Approved UK: Approved Canada: No current review
OXATHIPIPROLIN	49	Downy mildew	Australia: No current concerns. Codex MRL: 0.2 mg/Kg EU: Approved UK: Approved Canada: No current review
PENTHIOPYRAD	7	Grey mould Gummy stem blight Powdery mildew	Australia: No current concerns. Codex MRL: 0.5 mg/Kg EU: Approved UK: Approved Canada: No current review
PHOSPHOROUS (PHOSPHONIC) ACID	P07 (33)	Downy mildew	Australia: No current concerns.

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Active Constituent	MoA Group	Pest	Risks and Comments
PROPAMOCARB FLUOPICOLIDE	28 + 43	Downy mildew	<p>PROPAMOCARB</p> <p>Australia: No current concerns. Codex MRL: 5 mg/Kg EU: Approved UK: Approved</p> <p>FLUOPICOLIDE</p> <p>Australia: No current concerns. Codex MRL: 0.5 mg/Kg EU: Approved, candidate for substitution. UK: Approved Canada: No current review</p>
PROPINEB	M3	Downy mildew	<p>Australia: APVMA reconsideration. Prioritised to be commenced by 2027. EU: Not approved</p>
PROPINEB OXADIXYL	M3 + 4	Downy mildew Anthracnose Gummy stem blight	<p>PROPINEB</p> <p>Australia: APVMA reconsideration. Prioritised to be commenced by 2027. EU: Not approved</p> <p>OXADIXYL</p> <p>Australia: No current concerns. EU: Not approved</p>
PROQUINAZID	13	Powdery mildew	<p>Australia: No current concerns. EU: Approved UK: Approved</p>

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Active Constituent	MoA Group	Pest	Risks and Comments
PYDIFLUMETOFEN DIFENOCONAZOLE	7 + 3	Powdery mildew Erysiphe spp. Gummy Stem Blight Alternaria leaf spot Cercospora leaf spot	<p>PYDIFLUMETOFEN Australia: No current concerns. Codex MRL: 0.4 mg/Kg EU: Pending UK: Approved Canada: In review</p> <p>DIFENOCONAZOLE Australia: APVMA nominated for reconsideration after 2029 EU: Approved, candidate for substitution. UK: Approved Canada: In review</p>
SULPHUR	M2	Powdery mildew	<p>Australia: No current concerns. UK: Approved Canada: In review</p>
TEA TREE OIL	BM01	Powdery mildew	<p>Australia: No current concerns. EU: Approved Canada: No current review USA: Review upcoming</p>
TRIADIMEFON	3	Powdery mildew	<p>Australia: APVMA nominated for reconsideration after 2029 Codex MRL: 0.2 mg/Kg EU: Not approved Canada: No current review</p>
TRIADIMENOL	3	Powdery mildew	<p>Australia: APVMA nominated for reconsideration after 2029 Codex MRL: 0.2 mg/Kg EU: Not approved Canada: No current review</p>
ZINEB	M3	Anthrachnose Downy mildew	<p>Australia: APVMA reconsideration. Prioritised to be commenced by 2027. EU: Not approved Canada: No current review</p>

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HERBICIDES – Weed Control

Active Constituent	MoA Group	Risks and Comments
CLOMAZONE	13	Australia: No current concerns. EU: Approved UK: Approved Canada: In review
DIMETHENAMID-P	15	Australia: No current concerns. EU: Approved UK: Approved Canada: In review
DIQUAT	22	Australia: APVMA: Currently under review. APVMA proposed decisions July 2024 It is proposed to remove uses in pumpkins. Only uses up to 283gai/ha to be kept. Publication of the final regulatory decision is expected in December 2025 EU: Not approved (withdrawn in 2018). UK: Not approved.
FLUAZIFOP-P PRESENT AS THE BUTYL ESTER	1	Australia: APVMA nominated for reconsideration and for targeted spray drift reconsideration EU: Approved Canada: No current review
QUIZALOFOP-P	1	Australia: No current concerns. EU: Approved UK: Approved Canada: No current review
PARAQUAT	22	Australia: APVMA: Currently under review. APVMA proposed decisions July 2024 It is proposed to remove uses in pumpkins. Only uses up to 231gai/ha to be kept. Publication of the final regulatory decision is expected in December 2025 . EU: Not approved (withdrawn in 2018). UK: Not approved.
SETHOXYDIM	1	Australia: No current concerns. EU: Not approved Canada: Phase-Out

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Hort Innovation

Level 7, 141 Walker Street

North Sydney NSW 2060

Australia

Email: communications@horticulture.com.au

Phone: 02 8295 2300