

Onion (Bulb)

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Regulatory pressures on agrichemicals are increasing globally, with many being either restricted or withdrawn from use.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

Onion (Bulb) - Agrichemical Regulatory Risk Assessment

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
ALPHA-CYPERMETHRIN	3A	Permit PER80282 for the control of Onion thrips	Australia: APVMA nominated for reconsideration after 2029 Permit PER80282 Expiry date: 30/11/2025 EU: Not approved
CHLOROPICRIN + 1,3-DICHLOROPROPENE	8B + 8A	Cyst forming nematodes Symphylids Wireworm	CHLOROPICRIN Australia: APVMA: no current concerns. EU: Not approved 1,3-DICHLOROPROPENE Australia: APVMA: no current concerns. USA: Review upcoming
CHLORPYRIFOS	1B	Cutworms, earwigs, false wireworms, field crickets, harvester ants, mole crickets (seed dressing)	Australia: The APVMA issued a final decision on 30 September 2024. Use in onion was 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
CYANTRANILIPROLE	28	Onion (Cotton seedling) thrips	Australia: No current concerns. Codex MRL: 0.05 mg/Kg EU: Approved UK: Approved Canada: No current review

Onion (Bulb) - Agrichemical Regulatory Risk Assessment

Active Constituent	MoA Group	Pest	Risks and Comments
DAZOMET	8F	Non cyst forming nematodes	Australia: APVMA: no current concerns. EU: Approved UK: Approved Canada: Phase-Out USA: Review upcoming
DIAZINON	1B	Onion seedling maggot Wireworm	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
DIMETHOATE	1B	Aphids Bugs Green vegetable bug Jassids Leafhoppers Leafminer flies Mites Redlegged earth mite Thrips Wingless grasshopper	Australia: APVMA reconsideration. Prioritised to be commenced by 2029. EU: Not approved Canada: In review USA: Review upcoming
ETHYL FORMATE	8A	Onion (Cotton seedling) thrips	Australia: APVMA: no current concerns. EU: Not approved
FLONICAMID	29	Permit PER89185 for the suppression of Onion Thrips and Western Flower Thrips	Australia: No current concerns. Permit PER89185 Expiry date: 31/05/2027 EU: Approved Canada: No current review

Onion (Bulb) - Agrichemical Regulatory Risk Assessment

Active Constituent	MoA Group	Pest	Risks and Comments
ISOCYCLOSERAM	30	Onion thrips Plague thrips	Australia: No current concerns. Codex MRL: 0.01 mg/Kg
LAMBDA-CYHALOTHRIN	3A	Onion (Cotton seedling) thrips	Australia: No current concerns. Codex MRL: 0.2 mg/Kg EU: Approved, candidate for substitution. UK: Approved Canada: No current review
MALATHION	1B	Australian plague locust Migratory locust Onion (Cotton seedling) thrips 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. Codex MRL: 1 mg/Kg EU: Approved UK: Withdrawn. Expiry date: 30/04/2025 Canada: In review USA: Review upcoming
OMETHOATE	1B	Thrips Lucerne flea	Australia: Reviewed in 2016. No current concerns. EU: Not approved
PETROLEUM OIL	UN	Permit PER1221 for the control of Aphids, Green mirid, Green vegetable bug, Grey cluster bug, Leafhoppers, Mites, Rutherglen bug and Thrips.	Australia: No current concerns. Permit PER12221 Expiry date: 30/09/2027
PHORATE	1B	Onion seedling maggot Thrips	Australia: APVMA reconsideration. Prioritised to be commenced by 2026. EU: Not approved Canada: In review USA: Review upcoming

Onion (Bulb) - Agrichemical Regulatory Risk Assessment

Active Constituent	MoA Group	Pest	Risks and Comments
SPINETORAM	5	Onion thrips Western flower thrips	Australia: No current concerns. Codex MRL: 0.01 mg/Kg EU: Not approved UK: Withdrawn. Expiry date: 30/09/2024 Canada: In review
SPIROTETRAMAT	23	Onion (Cotton seedling) thrips Plague thrips Tomato thrips Western flower thrips	Australia: No current concerns. Codex MRL: 0.4 mg/Kg EU: Not approved UK: Approved Canada: In review

FUNGICIDES – Disease Control

Active Constituent	MoA Group	Pest	Risks and Comments
AZOXYSTROBIN OXATHIPIPROLIN	11 + 49	Downy mildew White rot	<p>AZOXYSTROBIN</p> <p>Australia: No current concerns. Codex MRL: 10 mg/Kg EU: Approved UK: Approved Canada: In review</p> <p>OXATHIPIPROLIN</p> <p>Australia: No current concerns. Codex MRL: 0.04 mg/Kg EU: Approved UK: Approved Canada: No current review</p>

Onion (Bulb) - Agrichemical Regulatory Risk Assessment

Active Constituent	MoA Group	Pest	Risks and Comments
BOSCALID	7	Neck rot	Australia: No current concerns. Codex MRL: 5 mg/Kg EU: Approved UK: Approved Canada: In review
CHLOROPICRIN + 1,3-DICHLOROPROPENE	--	Rhizoctonia	CHLOROPICRIN Australia: APVMA: no current concerns. EU: Not approved 1,3-DICHLOROPROPENE Australia: APVMA: no current concerns. USA: Review upcoming
CHLOROTHALONIL	M5	Downy mildew Neck and bulb rot Permit PER94740 for the control of Botrytis neck-rot	Australia: APVMA reconsideration . Prioritised to be commenced by 2028. Permit PER94740 Expiry date: 30/04/2029 Codex MRL: 1.5 mg/Kg EU: Not approved Canada: In review USA: Review upcoming
COPPER	M1	Downy mildew Purple blotch	Australia: No current concerns. EU: Approved, candidate for substitution. Canada: No current review
DIMETHOMORPH	40	Downy mildew Purple blotch	Australia: No current concerns. Codex MRL: 0.6 mg/Kg EU: Not approved UK: Approved Canada: No current review

Onion (Bulb) - Agrichemical Regulatory Risk Assessment

Active Constituent	MoA Group	Pest	Risks and Comments
DIMETHOMORPH AMETOCTRADIN	40 + 45	Downy mildew (Peronospora destructor)	<p>DIMETHOMORPH Australia: No current concerns. Codex MRL: 0.6 mg/Kg EU: Not approved UK: Approved Canada: No current review</p> <p>AMETOCTRADIN Australia: No current concerns. Codex MRL: 1.5 mg/Kg EU: Approved UK: Approved Canada: No current review</p>
DIMETHOMORPH MANCOZEB	40 + M3	Downy mildew	<p>DIMETHOMORPH Australia: No current concerns. Codex MRL: 0.6 mg/Kg EU: Not approved UK: Approved Canada: No current review</p> <p>MANCOZEB 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</p>

Onion (Bulb) - Agrichemical Regulatory Risk Assessment

Active Constituent	MoA Group	Pest	Risks and Comments
FLUDIOXONIL CYPRODINIL	12 + 9	Black mould Grey mould Neck and bulb rot	<p>FLUDIOXONIL Australia: No current concerns. EU: Approved, candidate for substitution. UK: Approved Canada: No current review</p> <p>CYPRODINIL Australia: No current concerns. Codex MRL: 0.3 mg/Kg EU: Approved, candidate for substitution. UK: Approved Canada: In review</p>
FLUOPYRAM TEBUCONAZOLE	3 + 7	White rot (Suppression only)	<p>FLUOPYRAM Australia: No current concerns. Codex MRL: 0.07 mg/Kg EU: Approved UK: Approved Canada: No current review</p> <p>TEBUCONAZOLE Australia: APVMA: Removed from nomination list - maintain watching brief Codex MRL: 0.15 mg/Kg EU: Approved, candidate for substitution. UK: Approved Canada: Phase-Out USA: Review upcoming</p>
FLUXAPYROXAD	7	Permit PER94835 for the control of Neck rot	<p>Australia: No current concerns. Permit PER94835 Expiry date: 31/05/2026 Codex MRL: 0.6 mg/Kg EU: Approved UK: Approved Canada: No current review</p>

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Active Constituent	MoA Group	Pest	Risks and Comments
HYDROGEN PEROXIDE PEROXYACETIC ACID	M	Downy mildew Neck and bulb rot	Australia: No current concerns. EU: Approved
IODINE	M	Bactericide Fungi (Post-harvest)	Australia: No current concerns.
IPRODIONE	2	Permit PER94740 for the control of Botrytis neck-rot	Australia: No current concerns. Permit PER94740 Expiry date: 30/04/2029 Codex MRL: 0.15 mg/Kg. Australia T0.7 mg/kg EU: Not approved Canada: Most of the food crop uses deleted USA: Review upcoming
MALATHION	1B	Onion thrip	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: MRL 1 mg/kg. Australia = 2 mg/kg
MANCOZEB	M3	Downy mildew Purple blotch	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

Onion (Bulb) - Agrichemical Regulatory Risk Assessment

Active Constituent	MoA Group	Pest	Risks and Comments
MANCOZEB METALAXYL	M3 + 4	Downy Mildew Purple Blotch	<p>MANCOZEB</p> <p>Australia: APVMA reconsideration. Prioritised to be commenced by 2027.</p> <p>EU: Not approved</p> <p>UK: Withdrawn. Expiry date: 31/05/2024</p> <p>Canada: Most of uses cancelled</p> <p>USA: Review upcoming</p> <p>METALAXYL</p> <p>Australia: No current concerns.</p> <p>Codex MRL: 0.03 mg/Kg</p> <p>EU: Approved, candidate for substitution.</p> <p>UK: Approved</p> <p>Canada: In review</p>
MANDESTROBIN	11	White rot Downy mildew - suppression	<p>Australia: No current concerns.</p> <p>Codex MRL:</p> <p>EU: Approved</p> <p>UK: Approved</p> <p>Canada: No current review</p>
METALAXYL	4	Downy mildew Purple blotch	<p>Australia: No current concerns.</p> <p>Codex MRL: 0.03 mg/Kg</p> <p>EU: Approved, candidate for substitution.</p> <p>UK: Approved</p> <p>Canada: In review</p>
METIRAM	M3	Downy mildew Purple blotch	<p>Australia: APVMA reconsideration. Prioritised to be commenced by 2027.</p> <p>EU: Not approved</p> <p>UK: Approved</p> <p>Canada: Foliar uses other than potato were cancelled</p>

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Active Constituent	MoA Group	Pest	Risks and Comments
OXATHIPIPROLIN	49	Downy mildew	Australia: No current concerns. Codex MRL: 0.04 mg/Kg EU: Approved UK: Approved Canada: No current review
PENTHIOPYRAD	7	Botrytis blight Purple blotch	Australia: No current concerns. Codex MRL: 0.7 mg/Kg EU: Approved UK: Approved Canada: No current review
PHOSPHOROUS (PHOSPHONIC) ACID	P07 (33)	Permit PER13698 for the control of Downy mildew (Peronospora spp.) (Suppression only)	Australia: No current concerns. Permit PER13698 Expiry date: 30/09/2025
PROCYMIDONE	2	White rot	Australia: Chemical review completed in October 2022. Labels were varied. No current concerns. EU: Not approved
PROPAMOCARB FLUOPICOLIDE	28 + 43	Downy mildew	PROPAMOCARB Australia: No current concerns. Codex MRL: 2 mg/Kg EU: Approved UK: Approved FLUOPICOLIDE Australia: No current concerns. Codex MRL: 1 mg/Kg EU: Approved, candidate for substitution. UK: Approved Canada: No current review

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PROPINEB	M3	Downy mildew	Australia: APVMA reconsideration. Prioritised to be commenced by 2027. EU: Not approved
PROPINEB OXADIXYL	M3 + 4	Downy mildew	PROPINEB Australia: APVMA reconsideration. Prioritised to be commenced by 2027. EU: Not approved OXADIXYL Australia: No current concerns. EU: Not approved
TEBUCONAZOLE	3	White rot	Australia: APVMA: Removed from nomination list - maintain watching brief Codex MRL: 0.15 mg/Kg EU: Approved, candidate for substitution. UK: Approved Canada: Phase-Out USA: Review upcoming
TRIADIMENOL	3	White rot	Australia: APVMA nominated for reconsideration after 2029 EU: Not approved
ZINEB	M3	Blue mould Downy mildew Purple blotch	Australia: APVMA reconsideration. Prioritised to be commenced by 2027. EU: Not approved Canada: No current review

HERBICIDES – Weed Control

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Active Constituent	MoA Group	Risks and Comments
ASULAM	18	Australia: No current concerns. EU: Not approved
BENTAZONE	6	Australia: No current concerns. Permit PER14773 Expiry date: 30/11/2027 Codex MRL: 0.04 mg/Kg EU: Approved UK: Approved
BROMOXYNIL	6	Australia: APVMA nominated for reconsideration and spray drift assessment. EU: Not approved Canada: In review
CHLORTHAL DIMETHYL	3	Australia: APVMA cancelled all products containing chlorthal dimethyl in October 2024. The use of chlorthal dimethyl as an agricultural chemical product is now illegal. EU: Not approved
CLETHODIM	1	Australia: No current concerns. Codex MRL: 0.5 mg/Kg EU: Approved UK: Approved Canada: No current review
CYANAZINE	5	Australia: APVMA nominated for reconsideration after 2029 EU: Not approved
DIMETHENAMID-P	15	Australia: No current concerns. Permit PER89991 Expiry date: 31/01/2027 Codex MRL: 0.01 mg/Kg EU: Approved UK: Approved Canada: In review
DIQUAT (Bulb Vegetables)	22	APVMA proposed decisions 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.

Onion (Bulb) - Agrichemical Regulatory Risk Assessment

Active Constituent	MoA Group	Risks and Comments
		EU: Not approved (withdrawn in 2018). UK: Not approved. USA: Registered (under review).
ETHOFUMESATE	15	Australia: No current concerns. EU: Approved UK: Approved Canada: In review
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
FLUROXYPYR	4	Australia: APVMA nominated for reconsideration and for targeted spray drift reconsideration Permit PER87200 Expiry date: 31/08/2028 EU: Approved UK: Approved
GLYPHOSATE	9	Australia: APVMA nominated for reconsideration for targeted spray drift reconsideration EU: Approved UK: Approved Canada: No current review USA: Review upcoming
HALOXYFOP	1	Australia: No current concerns. Permit PER84734 Expiry date: 30/09/2029 Codex MRL: 0.2 mg/Kg EU: Not approved
IOXYNIL	5	Australia: No current concerns. EU: Not approved
LINURON	5	Australia: No current concerns. EU: Not approved Canada: Special review decision. Cancellation of many uses.

Onion (Bulb) - Agrichemical Regulatory Risk Assessment

Active Constituent	MoA Group	Risks and Comments
METHABENZTHIAZURON	5	Australia: No current concerns. EU: Not approved
OXYFLUORFEN	14	Australia: No current concerns. EU: Approved, candidate for substitution. UK: Withdrawn. Expiry date: 31/12/2024 Canada: In review USA: Review upcoming
PARAQUAT (Bulb Vegetables)	22	<u>APVMA proposed decisions</u> published July 2024. Only uses up to 231gai/ha to be kept. Publication of the final regulatory decision is expected in <u>December 2025</u> . Codex: No MRLs. EU: Not approved (withdrawn in 2018). UK: Not approved. USA: Registered (under review).
PENDIMETHALIN	3	Australia: No current concerns. Codex MRL: 0.05 mg/Kg EU: Approved, candidate for substitution. UK: Approved Canada: In review USA: Review upcoming
PROPACHLOR	15	Australia: No current concerns. EU: Not approved
QUIZALOFOP-P-ETHYL	1	Australia: No current concerns. EU: Approved UK: Approved Canada: No current review
SETHOXYDIM	1	Australia: No current concerns. EU: Not approved Canada: Phase-Out

PLANT GROWTH REGULATORS – and others

Onion (Bulb) - Agrichemical Regulatory Risk Assessment

Active Constituent	Use	Risks and Comments
MALEIC HYDRAZIDE	For the control of premature sprouting of onion bulbs.	Australia: No current concerns. Codex MRL: 15 mg/Kg EU: Approved UK: Approved Canada: In review

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