

Papaya 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Regulatory pressures on agrichemicals are increasing globally, with many being either restricted or withdrawn from use.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 papaya 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
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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
ABAMECTIN FENBUTATIN OXIDE	6 + 12B	PER14097 for the control of Two-spotted mite	<p>Permit PER14097 Expiry date: 31/03/2028</p> <p>ABAMECTIN Australia: APVMA nominated for reconsideration and spray drift assessment. Codex MRL: 0.01 mg/Kg Canada: Re-evaluation finalised. Label amendments to mitigate risks to human health and environment (July, 2025)</p> <p>FENBUTATIN OXIDE Australia: APVMA nominated for reconsideration after 2029. EU: Not approved Canada: In re-evaluation USA: Under Registration Review (scheduled)</p>
ACETAMIPRID PYRIPROXYFEN	4A + 7C	<p>PER89943 for the control of:</p> <p>Fruit Spotting Bugs Mealybugs Scale Insects Plant Hoppers Leafhoppers</p> <p>Suppression only: Mediterranean Fruit Fly Queensland Fruit Fly.</p>	<p>Permit PER89943 Expiry date: 30/09/2027</p> <p>ACETAMIPRID Australia: APVMA: Currently under review. Proposed regulatory decisions expected between December 2025 to October 2026. Canada: In re-evaluation USA: Under Registration Review (scheduled)</p> <p>PYRIPROXYFEN Australia: No current concerns. Permit PER87728 Expiry date: 28/02/2026 Codex MRL: 0.3 mg/Kg</p>

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<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)
BETACYFLUTHRIN	3A	PER13671 for the control of Fruit-spotting bug and Banana-spotting bug	Australia: No current concerns. Permit PER13671 Expiry date: 30/11/2027 EU: Not approved
BIFENAZATE	20D	Two-spotted (red spider) mite	Australia: No current concerns. Canada: In re-evaluation
DIMETHOATE	1B	PER13859 for the control of fruit fly	Australia: APVMA reconsideration. Prioritised to be commenced by 2029. Permit PER13859 Expiry date: 31/05/2030 EU: Not approved Canada: In re-evaluation USA: Under Registration Review (scheduled)
ETOXAZOLE	10B	PER14098 for the control of Two-spotted mite	Australia: No current concerns. Permit PER14098 Expiry date: 31/03/2028 EU: Approved, candidate for substitution.
FIPRONIL	2B	Queensland fruit fly (trap toxicant)	Australia: APVMA: Currently under review. Proposed Regulatory decision expected by April 2026. EU: Not approved USA: Under Registration Review (scheduled)

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FLUPYRADIFURONE	4D	Banana-spotting bug / fruit spotting bug Green plant hopper Mango plant hopper Tropical fire ant Red imported fire ant	Australia: No current concerns.
INDOXACARB	22A	Tropical fire ant	Australia: No current concerns. EU: Not approved UK: Withdrawn (2024).
MALATHION	1B	Queensland fruit fly Fruit fly (PER1205 Qld only) Fruit flies (attractant)	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)
ORANGE OIL		Two spotted mite Suppression: Green peach aphid Melon aphid	Australia: No current concerns.
PYRETHRINS	3A	Ants Aphids Caterpillars Leafhoppers Thrips Whiteflies	Australia: No current concerns.
PYRIPROXYFEN	7C	PER87728 for the control of Red imported fire ants	Australia: No current concerns. Permit PER87728 Expiry date: 28/02/2026 Codex MRL: 0.3 mg/Kg

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SPINETORAM	5	Flower eating caterpillars Leafroller moths Loopers Red banded thrips Sorghum head caterpillar Yellow peach moth	Australia: No current concerns. EU: Not approved UK: Withdrawn (2024). Canada: In re-evaluation
SPINOSAD	5	Flower eating caterpillars Fruit flies Leafroller moths Loopers Mediterranean fruit fly Queensland fruit fly Red banded thrips Sorghum head caterpillar Yellow peach moth PER89870 for the control of Fall Armyworm	Australia: No current concerns. Permit PER89870 Expiry date: 31/10/2030 Canada: In re-evaluation
SULFOXAFLO	4C	Banana-spotting bug / fruit spotting bug	Australia: No current concerns.
TRICHLORFON	1B	Fruit spotting bug Banana spotting bug PER12450 for the control of Fruit fly	Australia: APVMA nominated for reconsideration after 2029. Permit PER12450 Expiry date: 31/08/2030 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
<i>Bacillus amyloliquefaciens</i> STRAIN QST 713	BM02	Suppression only: Anthracnose Stem end rot	Australia: No current concerns.
CHLOROTHALONIL	M5	PER12592 for the control of Black spot & Brown spot	Australia: APVMA reconsideration. Prioritised to be commenced by 2028. Permit PER12592 Expiry date: 31/01/2030 Codex MRL: 20 mg/Kg EU: Not approved Canada: In re-evaluation USA: Under Registration Review (scheduled)
COPPER	M1	PER94006 for the control of Diplodia & pink disease PER14417 for the control of Phytophthora fruit rot	Australia: No current concerns. Permit PER94006 Expiry date: 31/08/2029 Permit PER14417 Expiry date: 30/09/2029
DIFENOCONAZOLE	3	PER12592 for the control of Black spot & Brown spot	Australia: APVMA nominated for reconsideration after 2029. Permit PER12592 Expiry date: 31/01/2030 Codex MRL: 0.2 mg/Kg EU: Approved, candidate for substitution. Canada: In re-evaluation
FLUDIOXONIL	12	PER89170 for the control of Anthracnose and Stem End Rot	Australia: No current concerns. Permit PER89170 Expiry date: 28/02/2029 Codex MRL: 5 mg/Kg EU: Approved, candidate for substitution.
FLUOPYRAM	7	Powdery mildew	Australia: No current concerns.

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FLUOPYRAM + TRIFLOXYSTROBIN	7 + 11	Black spot Brown spot	FLUOPYRAM Australia: No current concerns. TRIFLOXYSTROBIN Australia: No current concerns. Codex MRL: 0.6 mg/Kg Canada: In re-evaluation
IODINE	M	Bactericide	Australia: No current concerns. Canada: Cancelled
MANCOZEB	M3	Black spot	Australia: APVMA reconsideration. Prioritised to be commenced by 2027. EU: Not approved UK: Withdrawn (2024). USA: Under Registration Review (scheduled)
METALAXYL-M	4	PER14490 for the control of Phytophthora root rot and Pythium	Australia: No current concerns. Permit PER14490 Expiry date: 31/03/2027
PHOSPHOROUS (PHOSPHONIC) ACID	P07 (33)	PER14490 for the control of Phytophthora root rot and Pythium	Australia: No current concerns. Permit PER14490 Expiry date: 31/03/2027
PROCHLORAZ	3	Anthrachnose Stem end rot	Australia: No current concerns. Codex MRL: 7 mg/Kg EU: Not approved
PROPAMOCARB	28	PER91912 for the control of Damping off	Australia: No current concerns. Permit PER91912 Expiry date: 31/12/2026
SULPHUR	M2	Powdery mildew	Australia: No current concerns. Canada: In re-evaluation

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TEBUCONAZOLE	3	Black spot	Australia: APVMA: Removed from nomination list - maintain watching brief Codex MRL: 2 mg/Kg EU: Approved, candidate for substitution. Canada: In re-evaluation USA: Under Registration Review (scheduled)
TRIADIMENOL	3	Powdery mildew	Australia: APVMA nominated for reconsideration after 2029. EU: Not approved Canada: Cancelled
TRIFLOXYSTROBIN	11	Powdery mildew	Australia: No current concerns. Codex MRL: 0.6 mg/Kg Canada: In re-evaluation

HERBICIDES – Weed Control

Active Constituent	MoA Group	Risks and Comments
CARFENTRAZONE-ETHYL	14	Australia: No current concerns. Canada: In re-evaluation
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.
FLUAZIFOP-P	1	Australia: No current concerns
GLUFOSINATE-AMMONIUM	10	Australia: APVMA Nominated for targeted spray drift reconsideration Codex MRL: 0.1 mg/Kg EU: Not approved Canada: In re-evaluation
GLYPHOSATE	9	Australia: APVMA Nominated for targeted spray drift reconsideration USA: Under Registration Review (scheduled)

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HALOXYFOP	1	Australia: No current concerns. EU: Not approved
ORYZALIN	3	Australia: No current concerns. EU: Not approved UK: Withdrawn (2024).
OXYFLUORFEN	14	Australia: No current concerns. EU: Approved, candidate for substitution. UK: Withdrawn (2024). Canada: In re-evaluation 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. Codex MRL: 0.01 mg/Kg EU: Not approved Canada: Cancelled USA: Restricted use

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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 (Xanthomonas 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	Post-harvest for improved fruit quality.	Australia: No current concerns
ETHEPHON	PER80746 for the control of CROP RIPENING	Australia: No current concerns Permit PER80746 Expiry date: 30/06/2030
ZINC PHOSPHIDE	PER93053 for the control of Rats & mice	Australia: No current concerns Permit PER93053 Expiry date: 30/11/2025

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Communications Manager

Hort Innovation

Level 7, 141 Walker Street

North Sydney NSW 2060

Australia

Email: communications@horticulture.com.au

Phone: 02 8295 2300