



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Regulatory pressures on agrichemicals are increasing globally, with many being either restricted or withdrawn from use.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

Papaya 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

INSECTS AND OTHER PESTS

Active constituent	MoA group	Insects and other pests	Risks & Comments
Abamectin	6	Two-spotted (red spider) mite (PER14097)	PER14097 expires 31/03/2028. Australia: APVMA nominated for reconsideration and spray drift assessment. EU: Approved. Canada: In review. Codex: MRL set at 0.01 mg/kg (2016).
Acetamiprid + pyriproxyfen	4A + 7C	Banana-spotting bug / fruit spotting bug (PER89943)	PER89943 expires 30/11/2025. Acetamiprid: Australia: APVMA: Currently under review . Proposed regulatory decisions expected between Dec. 2025 to Oct. 2026. EU: Approved. UK: Approved. Canada: In review. USA: Upcoming review. Pyriproxyfen: EU: Approved. UK: Approved. Canada: No current review. Codex: MRL set at 0.3 mg/kg (2019).
		Mealybugs and scale (PER89943)	
		Mediterranean fruit fly (PER89943)	
		Plant hoppers / leaf hoppers (PER89943)	
		Queensland fruit fly (PER89943)	
<i>Bacillus thuringiensis</i>	11A	Helicoverpa species Loopers	
Beta-cyfluthrin	3A	Banana-spotting bug / fruit spotting bug (PER13671)	PER13671 expires 30/11/2027.
Bifenazate	20D	Two-spotted (red spider) mite	EU: Approved. UK: Approved. Canada: In review.
Dimethoate	1B	Fruit flies - clean-up post-harvest (PER13859)	PER13859 expires 31/05/2030. Australia: APVMA reconsideration . Prioritised to be commenced by 2029. EU: Not approved. Canada: In review. USA: Upcoming review.

Papaya Agrichemical Regulatory Risk Assessment

Etoxazole	10B	Two-spotted (red spider) mite (PER14098)	PER14098 expires 31/03/2028. Australia: No current concerns. EU: Approved, candidate for substitution. UK: Approved. Canada: No current review.
Fenbutatin oxide	12B	Two-spotted (red spider) mite (PER14097)	PER14097 expires 31/03/2028. Australia: APVMA nominated for reconsideration after 2029. EU: Not approved. Canada: In review. USA: Upcoming review. Codex: To be reviewed by JMPR.
Fipronil	2B	Queensland fruit fly (trap toxicant)	Australia: APVMA: Currently under review . Proposed regulatory decision expected by April 2026. EU: Not approved. USA: Upcoming review. Codex: Re-evaluation underway.
Flupyradifurone	4D	Banana-spotting bug / fruit spotting bug Green plant hopper Mango plant hopper	
Indoxacarb	22A	Tropical fire ant Red imported fire ant	EU: Not approved. UK: Withdrawn.
Malathion	1B	Queensland fruit fly Fruit fly (PER1205 Qld only) Fruit flies (attractant)	PER1205 expires 30/06/2028. Australia: The final regulatory decision was published in an APVMA Special Gazette on 2 May 2024. 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. Canada: In review. USA: Upcoming review.
Pyrethrins	3A	Ants Aphids Caterpillars Leafhoppers Thrips Whiteflies	Australia: No current concerns. EU: Approved. UK: Approved. Canada: No current review.

Papaya Agrichemical Regulatory Risk Assessment

Pyriproxyfen	7C	Ants	PER87728 expires 28/02/2026. EU: Approved. UK: Approved. Canada: No current review. Codex: MRL set at 0.3 mg/kg (2019).
		Red imported fire ant (PER87728 Qld only)	
Spinetoram	5	Flower eating caterpillars	Australia: No current concerns. EU: Not approved. UK: Withdrawn. Canada: In review.
		Leafroller moths	
		Loopers	
		Red banded thrips	
		Sorghum head caterpillar	
		Yellow peach moth	
Spinosad	5	Flower eating caterpillars	PER89870 expires 31/07/2025. Australia: Reviewed in 2014. No current concerns. EU: Approved. UK: Approved. Canada: In review.
		Fruit flies	
		Leafroller moths	
		Loopers	
		Mediterranean fruit fly	
		Queensland fruit fly	
		Red banded thrips	
		Sorghum head caterpillar	
		Yellow peach moth	
		Fall armyworm (PER89870)	
Sulfoxaflor	4C	Banana-spotting bug / fruit spotting bug	Australia: No current concerns. EU: Approved. UK: Approved. Canada: No current review.
Trichlorfon	1B	Banana-spotting bug / fruit spotting bug	PER12450 expires 30/11/2025. Australia: APVMA nominated for reconsideration . EU: Not approved. Canada: No current review. USA: Upcoming review.
		Fruit flies	
		Mediterranean fruit fly (PER12450)	
		Queensland fruit fly (PER12450)	

Papaya Agrichemical Regulatory Risk Assessment

DISEASES

Active constituent	MoA Group	Disease	Risks & Comments
<i>Bacillus amyloliquefaciens</i>	BM02	Anthracnose	Canada: No current review.
		Stem end rot	
Chlorothalonil	M5	Black spot (PER12592)	PER12592 expires 31/01/2030. Australia: APVMA reconsideration . Prioritised to be commenced by 2028. EU: Not approved. Canada: In review. USA: Upcoming review. Codex: MRL set at 20 mg/kg (2011).
		Brown spot (Corynespora leafspot) (PER12592)	
Copper	M1	Phytophthora stem / root rot	PER14417 expires 30/09/2029.
		Phytophthora fruit rot (PER14417)	
Difenoconazole	3	Black spot (PER12592)	PER12592 expires 31/01/2030. Australia: APVMA nominated for reconsideration . EU: Approved, candidate for substitution. UK: Approved. Canada: In review. Codex: MRL set at 0.2 mg/kg (2008).
		Brown spot (Corynespora leafspot) (PER12592)	
Fludioxonil	9	Anthracnose (PER89170)	PER89170 expires 28/02/2029. Australia: No current concerns. EU: Approved, candidate for substitution. UK: Approved. Canada: No current review. Codex: MRL set at 5 mg/kg (2023).
		Stem end rot (PER89170)	
Fluopyram + trifloxystrobin	7 + 11	Anthracnose	Fluopyram: EU: Approved. UK: Approved. Canada: No current review. Trifloxystrobin: Australia: No current concerns. EU: Approved. UK: Approved. Canada: In review. Codex: MRL set at 0.6 mg/kg (2013).
		Stem end rot	
Iodine	M	Bactericide	Australia: No current concerns. Canada: No current review.

Papaya Agrichemical Regulatory Risk Assessment

Mancozeb	M3	Black spot	Australia: APVMA reconsideration . Prioritised to be commenced by 2027. EU: Not approved. UK: Withdrawn. Canada: No current review. USA: Upcoming review. Codex: To be reviewed.
Metalaxyl-M / Metalaxyl	4	Phytophthora stem / root rot (PER14490)	PER14490 expires 31/03/2027. Metalaxyl-M : EU: Approved. UK: Approved. Metalaxyl : Australia: No current concerns. EU: Approved, candidate for substitution. UK: Approved. Canada: In review.
		Pythium (PER14490)	
Phosphorous acid	33	Phytophthora stem / root rot (PER14490)	PER14490 expires 31/03/2027.
		Pythium (PER14490)	
Prochloraz (post-harvest)	3	Anthraco nose	EU: Not approved. UK: Approved. Codex: Assorted tropical and sub-tropical fruits – inedible peel MRL set at 7 mg/kg (2005). Periodic re-evaluation scheduled.
		Stem end rot	
Propamocarb HCl	28	Pythium spp. (PER91912)	PER91912 expires 31/12/2026.
Sulfur	M2	Powdery mildew	Australia: No current concerns.
Tebuconazole	3	Black spot	Australia: APVMA: Removed from nomination list - maintain watching brief. EU: Approved, candidate for substitution. UK: Approved. Canada: In review. USA: Upcoming review. Codex: MRL set at 2 mg/kg (2012).
Triadimenol	3	Powdery mildew	Australia: APVMA nominated for reconsideration after 2029. EU: Not approved. Canada: No current review.

Papaya Agrichemical Regulatory Risk Assessment

PLANT GROWTH REGULATORS

Active constituent	Claim	Risks & Comments
Ethephon (PER80746)	Fruit de-greening, ripening.	PER80746 expires 31/08/2025. EU: Approved. UK: Approved. Canada: No current review.
1-methylcyclopropene	Post-harvest for improved fruit quality.	EU: Approved. UK: Approved. Canada: No current review.

WEEDS

Active constituent	MoA Group	Weed	Risks & Comments
Carfentrazone-ethyl	14	Various broadleaf weeds.	EU: Approved. UK: Approved. Canada: In review.
Diquat	22	Various broadleaf weeds and grasses.	APVMA proposed decisions published July 2024. All fruit uses to be removed. 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	1	Various grasses.	Australia: APVMA nominated for reconsideration and for targeted spray drift reconsideration. Canada: No current review.
Glufosinate-ammonium	10	Various broadleaf weeds and grasses.	Australia: APVMA: Nominated for targeted spray drift reconsideration (potential risk to vegetation, natural aquatic and bystander areas). Canada: In review. Codex: Assorted tropical and sub-tropical fruits – inedible peel MRL set at 0.1 mg/kg (2013).
Glyphosate	9	Various annual and perennial weeds.	Australia: APVMA nominated for reconsideration for targeted spray drift reconsideration. EU: Approved.

Papaya Agrichemical Regulatory Risk Assessment

			UK: Approved. Canada: No current review. USA: Upcoming review.
Haloxypop-p	1	Various annual and perennial weeds.	
Oryzalin (non-bearing)	3	Various broadleaf weeds and grasses.	EU: Not approved. UK: Withdrawn.
Oxyfluorfen	14	Various broadleaf weeds and grasses.	EU: Approved, candidate for substitution. UK: Withdrawn. Canada: In review. USA: Upcoming review.
Paraquat	22	Various broadleaf weeds and grasses.	APVMA proposed decisions July 2024. All fruit uses to be removed. Publication of the final regulatory decision is expected in December 2025. Codex: No MRLs Canada: Not approved. EU and UK: Not approved (2007). USA: Restricted use (under review).

Funding statement: MT24008 –Regulatory Support & Response Co-ordination. This *multi-industry* project has been funded by Hort Innovation, using *industry research and development levies and contributions from the Australian Government*. Hort Innovation is the grower-owned, not-for-profit research and development corporation for Australian horticulture.

Disclaimer

Horticulture Innovation Australia Limited (Hort Innovation) makes no representations and expressly disclaims all warranties (to the extent permitted by law) about the accuracy, completeness, or currency of information in MT24008 – Regulatory Support & Response Co-ordination. Reliance on any information provided by Hort Innovation is entirely at your own risk. Hort Innovation is not responsible for, and will not be liable for, any loss, damage, claim, expense, cost (including legal costs) or other liability arising in any way, including from any Hort Innovation or other person's negligence or otherwise from your use or non-use of MT24008 – Regulatory Support & Response Co-ordination, or from reliance on information contained in the material or that Hort Innovation provides to you by any other means.

Legal notice

Copyright © Horticulture Innovation Australia Limited 2025

Copyright subsists in Ag-Chemical Update. Horticulture Innovation Australia Limited (Hort Innovation) owns the copyright, other than as permitted under the Copyright ACT 1968 (Cth). The Ag-Chemical Update (in part or as a whole) cannot be reproduced, published, communicated or adapted without the prior written consent of Hort Innovation. Any request or enquiry to use the Ag-Chemical Update should be addressed to:

Communications Manager

Hort Innovation

Level 7, 141 Walker Street

North Sydney NSW 2060

Australia

Email: communications@horticulture.com.au

Phone: 02 8295 2300

Papaya Agrichemical Regulatory Risk Assessment