

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Regulatory pressures on agrichemicals are increasing globally, with many being either restricted or withdrawn from use.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

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
Acetamiprid + pyriproxyfen	4A + 7C	Banana-spotting bug / fruit-spotting bug	Acetamiprid: Australia: APVMA: Currently under review. Proposed
		Mango scales	regulatory decisions expected between Dec. 2025 to Oct. 2026.
		Mediterranean fruit fly	EU: Approved.
		Pink wax scale	UK: Approved.
		Queensland fruit fly	Canada: In review.
		,	USA: Upcoming review.
			Pyriproxyfen: EU: Approved.
			UK: Approved.
			Canada: No current review.
			Codex: MRL set at 0.02 mg/kg (2021).
Beta-cyfluthrin	3A	Banana-spotting but / fruit-spotting bug	PER80374 expires 31/08/2025.
		(PER80374)	
		Elephant / rhinoceros beetle (PER80374)	
		Fig longicorn / trunk borer (PER80374)	
		Flatid planthoppers (PER80374)	
		Green vegetable bug (PER80374)	
		Litchi sink bug (PER80374)	
		Macadamia nutborer (PER80374)	
		Mango shoot caterpillar (PER80374)	
		Red shouldered leaf beetle (PER80374)	
		Swarming leaf beetle (PER80374)	
		Yellow peach moth (PER80374)	
Bifenthrin	3A	Termites (tree establishment – non-fruit bearing)	Australia: APVMA nominated for reconsideration after 2029.
			EU: Not approved.
			Canada: No current review.
Buprofezin	16	Mango scales	EU: Approved. UK: Approved.
			Canada: No current review.
			Codex: MRL set at 0.1 mg/kg (2009).

Carbaryl	1A	Fig leafhopper	PER13484 expires 31/05/2030.
Carbaryi		Flatid planthoppers	Australia: No current concerns.
		Pink wax scale	EU: Not approved.
		White (common) mango scale	Canada: In review.
		Wingless grasshopper	USA: Upcoming review.
		Mango leafhopper (PER13484)	Codex: Review scheduled, support uncertain.
Chlorpyrifos	1B	Common Mango Scale	Australia: The APVMA issued a Final Decision on 30 September 2024.
Chiorpythos	10	Common Marigo Scale	All uses on mango were cancelled. Products with previously approved
			labels must not be possessed or used after September 30, 2025.
			Codex: All MRLs deleted EU: Not approved Canada: All uses
			cancelled 2023 USA: Upcoming review
Clothianidin	4A	Mango seed weevil – suppression only (PER87799)	PER87799 expires 31/03/2026.
		Suppression only (1 End/755)	Australia: APVMA: Currently under review. Proposed regulatory
			decisions expected between Dec. 2025 to Oct. 2026.
			EU: Not approved.
			Canada: In review.
			USA: Upcoming review.
			Codex: MRL set at 0.04 mg/kg (2015).
Dimethoate	1B	Lesser Queensland fruit fly (cover spray)	Australia: APVMA reconsideration. Prioritised to be commenced by
		Mediterranean fruit fly (cover spray)	2029.
		NT fruit fly (cover spray)	EU: Not approved.
		Queensland fruit fly (cover spray)	Canada: In review.
			USA: Upcoming review.
Etoxazole	10B	Tea red spider mite (PER87232)	PER87232 expires 30/11/2026.
			Australia: No current concerns.
			EU: Approved, candidate for substitution.
			UK: Approved.
			Canada: No current review.
Fipronil	2B	Giant termites (PER93940 and PER92765)	PER93940 expires 31/01/2026.
			PER92765 expires 31/08/2025.
			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	Australia: No current concerns.
		Green plant hoper	EU: Approved.
		Mango plant hopper	UK: Approved.
			Canada: No current review.
Malathion	1B	Mediterranean fruit fly (PER83998)	PER83998 expires 31/07/2026.
		Queensland fruit fly (PER83998)	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.
Methomyl	1A	Banana flower thrips (PER84427)	PER84427 expires 31/12/2028.
		Chilli thrips (PER84427)	Australia: APVMA reconsideration. Prioritised to be commenced by
		Red banded thrips (PER84427)	2026.
		Tomato thrips (PER84427)	EU: Not approved.
			Canada: In review.
			USA: Upcoming review.
Methoxyfenozide	18	Mango shoot looper (PER91798)	PER91798 expires 31/12/2025.
			EU: Approved, candidate for substitution.
			UK: Approved.
			Canada: In review.
Paraffinic oil / petroleum oil	UNM	Mango seed weevil	Australia: No current concerns.
		Mango plant hopper	
		Mango scales	
		Mango tip borers	
		Pink wax scale	
		Scale insects	
Pyriproxyfen	7C	Mango scales	EU: Approved.
		Pink wax scale	UK: Approved.
		White (common) mango scale	Canada: No current review.
			Codex: MRL set at 0.02 mg/kg (2021).
Spinetoram	5	Flower eating caterpillars	Australia: No current concerns.
		Loopers	EU: Not approved.
		Mango shoot caterpillar	UK: Withdrawn.

		Mango tip borers	Canada: In review
		Red banded thrips	Codex: MRL set at 0.01 mg/kg (2018).
		Sorghum head caterpillar	
		Yellow peach moth	
Spinosad	5	Flower eating caterpillars	PER89870 expires 31/07/2025.
		Ivy leaf roller	Australia: Reviewed in 2014. No current concerns.
		Loopers	EU: Approved.
		Mango tip borers	UK: Approved.
		Red banded thrips	Canada: In review.
		Sorghum, head caterpillar	
		Yellow peach moth	
		Fall armyworm (PER89870)	
Spirotetramat	23	Citrus mealybug	Australia: No current concerns.
		Pink wax scale	EU: Not approved.
		White (common) mango scale	UK: Approved.
			Canada: In review.
			Codex: MRL set at 0.3 mg/kg (2012).
Sulfoxaflor	4C	Banana-spotting bug / fruit-spotting bug	Australia: No current concerns.
			EU: Approved.
			UK: Approved.
			Canada: No current review.
			Codex: MRL set at 0.3 mg/kg (2022).
Tetraniliprole	28	Mango seed weevil	Australia: No current concerns.
		Mango shoot looper	Canada: No current review.
Trichlorfon	1B	Mediterranean fruit fly (PER12450)	PER12450 expires 30/11/2025.
		Queensland fruit fly (PER12450)	PER14743 expires 28/02/2030.
		Banana-spotting bug / fruit-spotting bug	Australia: APVMA nominated for reconsideration.
		(PER14743)	EU: Not approved.
		Flatid planthoppers (PER14743)	Canada: No current review.
		Flower eating caterpillars (PER14743)	USA: Upcoming review.
		Green vegetable bug (PER14743)	
		Litchi stink bug (PER14743)	
		Loopers (PER14743)	
		Yellow peach moth (PER14743)	

DISEASES

Active constituent	MoA Group	Disease	Risks & Comments
Azoxystrobin	11	Anthracnose Stem-end rot	Australia: No current concerns. EU: Approved. UK: Approved. Canada: In review. Codex: MRL set at 4 mg/kg (2023).
Bacillus amyloliquefaciens	BM02	Anthracnose Stem-end rot	
Chlorothalonil	M5	Anthracnose	Australia: APVMA reconsideration. Prioritised to be commenced by 2028. EU: Not approved. Canada: In review. USA: Upcoming review.
Copper	M1	Anthracnose Bacterial black spot	
DDAC (Didecyldimethylam monium chloride)	-	Sanitizer	
Fludioxonil	12	Anthracnose Dendritic post Stem-end rot	Australia: No current concerns. EU: Approved, candidate for substitution. UK: Approved. Canada: No current review. Codex: MRL set at 7 mg/kg (2023).
lodine	M	Bactericide	Australia: No current concerns. Canada: No current review.
Mancozeb	M3	Anthracnose	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.
Metiram	M3	Anthracnose Powdery mildew	Australia: APVMA reconsideration. Prioritised to be commenced by 2027. EU: Not approved.

			UK: Approved.
			Canada: No current review.
			Codex: To be reviewed.
Prochloraz	3	Alternaria rot	EU: Not approved.
		Anthracnose	UK: Approved.
		Blossom blight	Codex: Assorted tropical and sub-tropical fruits – inedible peel MRL
			set at 7 mg/kg (2005). Periodic re-evaluation scheduled.
Pyraclostrobin +	11 + 7	Anthracnose	Pyraclostrobin: EU: Approved.
fluxapyroxad		Powdery mildew	UK: Approved.
			Canada: In review.
			Codex: MRL set at 0.6 mg/kg (2019).
			Fluxapyroxad: EU: Approved.
			UK: Approved.
			Canada: No current review.
			Codex: MRL set at 0.6 mg/kg (2019).
			Codex. WINE set at 0.0 Hig/kg (2019).
Pyrablostrobin +	11 + M3	Anthracnose	Pyraclostrobin: EU: Approved.
Pyrablostrobin + metiram	11 + M3	Anthracnose Powdery mildew	Pyraclostrobin: EU: Approved. UK: Approved.
•	11 + M3		Pyraclostrobin: EU: Approved. UK: Approved. Canada: In review.
•	11 + M3	Powdery mildew	Pyraclostrobin: EU: Approved. UK: Approved. Canada: In review. Codex: MRL set at 0.6 mg/kg (2019).
•	11 + M3	Powdery mildew	Pyraclostrobin: EU: Approved. UK: Approved. Canada: In review. Codex: MRL set at 0.6 mg/kg (2019). Metiram: Australia: APVMA reconsideration. Prioritised to be
•	11 + M3	Powdery mildew	Pyraclostrobin: EU: Approved. UK: Approved. Canada: In review. Codex: MRL set at 0.6 mg/kg (2019). Metiram: Australia: APVMA reconsideration. Prioritised to be commenced by 2027.
•	11 + M3	Powdery mildew	Pyraclostrobin: EU: Approved. UK: Approved. Canada: In review. Codex: MRL set at 0.6 mg/kg (2019). Metiram: Australia: APVMA reconsideration. Prioritised to be commenced by 2027. EU: Not approved.
•	11 + M3	Powdery mildew	Pyraclostrobin: EU: Approved. UK: Approved. Canada: In review. Codex: MRL set at 0.6 mg/kg (2019). Metiram: Australia: APVMA reconsideration. Prioritised to be commenced by 2027. EU: Not approved. UK: Approved.
•	11 + M3	Powdery mildew	Pyraclostrobin: EU: Approved. UK: Approved. Canada: In review. Codex: MRL set at 0.6 mg/kg (2019). Metiram: Australia: APVMA reconsideration. Prioritised to be commenced by 2027. EU: Not approved. UK: Approved. Canada: No current review.
metiram		Powdery mildew Stem-end rot	Pyraclostrobin: EU: Approved. UK: Approved. Canada: In review. Codex: MRL set at 0.6 mg/kg (2019). Metiram: Australia: APVMA reconsideration. Prioritised to be commenced by 2027. EU: Not approved. UK: Approved. Canada: No current review. Codex: To be reviewed.
•	11 + M3	Powdery mildew	Pyraclostrobin: EU: Approved. UK: Approved. Canada: In review. Codex: MRL set at 0.6 mg/kg (2019). Metiram: Australia: APVMA reconsideration. Prioritised to be commenced by 2027. EU: Not approved. UK: Approved. Canada: No current review. Codex: To be reviewed. Australia: APVMA reconsideration. Prioritised to be commenced by
metiram		Powdery mildew Stem-end rot	Pyraclostrobin: EU: Approved. UK: Approved. Canada: In review. Codex: MRL set at 0.6 mg/kg (2019). Metiram: Australia: APVMA reconsideration. Prioritised to be commenced by 2027. EU: Not approved. UK: Approved. Canada: No current review. Codex: To be reviewed. Australia: APVMA reconsideration. Prioritised to be commenced by 2027.
metiram		Powdery mildew Stem-end rot	Pyraclostrobin: EU: Approved. UK: Approved. Canada: In review. Codex: MRL set at 0.6 mg/kg (2019). Metiram: Australia: APVMA reconsideration. Prioritised to be commenced by 2027. EU: Not approved. UK: Approved. Canada: No current review. Codex: To be reviewed. Australia: APVMA reconsideration. Prioritised to be commenced by 2027. EU: Not approved.
metiram		Powdery mildew Stem-end rot	Pyraclostrobin: EU: Approved. UK: Approved. Canada: In review. Codex: MRL set at 0.6 mg/kg (2019). Metiram: Australia: APVMA reconsideration. Prioritised to be commenced by 2027. EU: Not approved. UK: Approved. Canada: No current review. Codex: To be reviewed. Australia: APVMA reconsideration. Prioritised to be commenced by 2027.

PLANT GROWTH REGULATORS

Active constituent	Claim	Risks & Comments
Ethephon (PER91560)	Manage seasonal vegetative flushes to better	PER91560 expires 30/11/2026.
	synchronise flowering and fruit set (when conditions	EU: Approved.
	require such management).	UK: Approved.

		Canada: No current review.
1-methylcyclopropene	Improve post-harvest fruit quality.	EU: Approved.
		UK: Approved.
		Canada: No current review.
Paclobutrazol	Reduce vegetative growth.	EU: Approved, candidate for substitution.
		UK: Approved.
		Canada: In review.

WEEDS

Active constituent	MoA Group	Weed	Risks & Comments
Carfentrazone-ethyl	14	Various broadleaf weeds.	EU: Approved. UK: Approved. Canada: In review.
Clethodim (non- bearing)	1	Various grasses.	Australia: No current concerns. EU: Approved. UK: Approved. Canada: No current review. Codex: MRLs proposed to be deleted.
Diquat	22	Various broadleaf weeds and grasses.	APVMA proposed decisions published July 2024. All uses in orchards proposed to be deleted. 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).
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 and for

			targeted spray drift reconsideration. EU: Approved. UK: Approved. Canada: No current review. USA: Upcoming review.
Haloxyfop-p	1	Various annual and perennial weeds.	
Isoxaben (non- bearing)	29	Various broadleaf weeds.	EU: Approved. UK: Approved.
bearing)			Canada: No current review.
Oryzalin	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 uses in orchards proposed
			to be deleted. Publication of the final regulatory decision is expected in <u>December 2025</u> .
			Codex: Assorted tropical and sub-tropical fruits – inedible peel MRL
			set at 0.01 mg/kg (2006).
			Canada: Not approved.
			EU and UK: Not approved (2007).
			USA: Restricted use (under review).
Pendimethalin	3	Various broadleaf weeds and grasses.	Australia: No current concerns.
			EU: Approved, candidate for substitution.
			UK: Approved.
			Canada: In review.
			USA: Upcoming review.

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