



Apple 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Regulatory pressures on agrichemicals are increasing globally, with many being either restricted or withdrawn from use.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 with changed data requirements. A consequence of which can be that many agrichemicals are not meeting contemporary risk assessment standards as the necessary data is unavailable, or where data is available, the refined 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 an 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 **apples** as well as assisting with any current initiatives aimed at identifying and addressing identified pest management deficiencies.

Apple 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
(e,e) 8,10 dodecadien-1-ol	-	Codling moth	Pheromone – no concerns
(Z)-8-dodecen-1-yl acetate e-8-dodecen-1-yl acetate z-8-dodecen-1-ol	-	Oriental fruit moth	Pheromone – no concerns
1-dodecanol (e,e) 8,10 dodecadien-1-ol tetradecanol	-	Codling moth	Pheromone – no concerns
1-dodecanol (e,e) 8,10 dodecadien-1-ol dodecenol acetate - 8 z dodecenyl acetate - 8 e dodecenyl acetate - 8 z tetradecan-1-ol	-	Oriental fruit moth Codling moth	Pheromone – no concerns
3-methyl-1-butanol 2-methyl-1-butanol ethyl acetate acetaldehyde sec butanol ethanol carpophilus aggregation pheromones	-	Carpophilus beetles	Pheromone – no concerns
4-(P-acetoxyphenyl)-2-butanone + malathion	1B	Male Queensland fruit fly	Malathion: Australia: The <u>final regulatory decision</u> 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.
Abamectin	6	European red mite	Australia: <u>APVMA nominated for reconsideration</u> and spray drift assessment.

Apple Agrichemical Regulatory Risk Assessment

		Two-spotted mites	EU: Approved. Canada: In review. Codex: Pome fruit MRL set at 0.01 mg/kg (2016).
Abamectin + chlorantraniliprole	6 + 28	Codling moth	Abamectin: Australia: APVMA nominated for reconsideration and spray drift assessment. EU: Approved. Canada: In review. Codex: Pome fruit MRL set at 0.01 mg/kg (2016). Chlorantraniliprole: Australia: No current concerns. EU: Approved. UK: Approved. Canada: In review.
		European red mite	
		Helicoverpa species (bollworm)	
		Light brown apple moth	
		Oriental fruit moth	
		Two-spotted mites	
Acequinocyl	20B	Two spotted mites	EU: Approved.
Acetamiprid + novaluron	4A + 15	Apple dimpling bug (yellow mirid)	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. Codex: Pome fruit MRL set at 0.8 mg/kg (2012). Novaluron: EU: Not approved. Canada: In review.
		Codling moth	
		Longtailed mealybug	
		Woolly apple aphid	
		Light brown apple moth	
		Plague thrips	
		San Jose scale	
		Tuber mealybug	
Alpha-cypermethrin	3A	Apple weevil	Australia: APVMA nominated for reconsideration . Canada: No current review.
		Garden weevil	
<i>Bacillus thuringiensis</i>	11A	Caterpillars	
		Helicoverpa species	
		Light brown apple moth	
		Loopers	
		Pear looper	
Bifenazate	20D	Bryobia mite	EU: Approved. UK: Approved. Canada: In review. Codex: Pome fruit MRL set at 0.7 mg/kg (2007).
		European red mite	
		Two-spotted mites	
Bifenthrin	3A	Apple dimpling bug (yellow mirid)	Australia: APVMA nominated for reconsideration . EU: Not approved. Canada: No current review.
		Plague thrips	

Apple Agrichemical Regulatory Risk Assessment

Carbaryl	1A	Codling moth	Australia: No current concerns. EU: Not approved. Canada: In review. USA: Upcoming review. Label changes expected. Codex: No MRLs for pome fruit.
		Helicoverpa species	
		Light brown apple moth	
		Pear and cherry slug	
		Pear leaf blister mite	
		Wingless grasshoppers	
Chlorantraniliprole	28	Codling moth	Australia: No current concerns. EU: Approved. UK: Approved. Canada: In review. Codex: Pome fruit MRL set at 0.4 mg/kg (2009).
		Helicoverpa species	
		Light brown apple moth	
		Oriental fruit moth	
Chlorpyrifos	1B	Apple dimpling bug, light brown apple moth, mealybug, Queensland fruit fly, San Jose' scale, wingless grasshopper, woolly aphid (label) Locusts (PER11843 – EXPIRED)	PER11843 expired 31/07/2024. Australia: The APVMA issued a final decision in September 2024. Uses in pome fruit were cancelled. Products with previously approved labels should not be possessed or used after September 30, 2025. The final decision was published in the APVMA Official Gazette on October 3, 2024. EU: Not approved. Canada: In review. USA: Upcoming review. Codex: MRLs revoked.
Clofentezine	10A	Bryobia mite	Australia: No current concerns. EU: Not approved. UK: Approved. Canada: No current review. Codex: Pome fruit MRL set at 0.5 mg/kg (2008).
		European red mite	
		Two-spotted mites	
Clothianidin	4A	Codling moth	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: Pome fruit MRL set at 0.4 mg/kg (2012).
		Fruit flies	
		Longtailed mealybug	
		Woolly apple aphid	
		Tuber mealybug	
Cyclaniliprole	28	Codling moth	Codex: Pome fruit MRL set at 0.2 mg/kg (2021).
		Apple looper	
		Light brown apple moth	
<i>Cydia pomonella</i> granulosus virus	31	Codling moth	
		Oriental fruit moth	

Apple Agrichemical Regulatory Risk Assessment

Cyflumetofen	25A	Bryobia mite	EU: Approved. UK: Approved. Canada: No current review. Codex: Pome fruit MRL set at 0.4 mg/kg (2015).
		European red mite	
		Two-spotted mite	
Deltamethrin + MagMED	3	Medfly (PER92548-WA only)	PER92548 expires 30/09/2025. Australia: Completed. EU: Approved. UK: Approved. Canada: No current review.
Diazinon	1B	San Jose Scale, Woolly Aphid, Greedy Scale	Australia: Australia: APVMA made a Final Decision on 10 September 2024. Agricultural uses were not supported during the review. Approved use on all fruit ceases on 10 September 2025. Codex: All MRLs deleted. EU: Not approved. Canada: No current review. USA: Upcoming review.
Dimethoate	1B	Fruit flies (PER13859 – after harvest orchard clean-up spray)	PER13859 expires 31/05/2030. Australia: APVMA reconsideration . Prioritised to be commenced by 2029. EU: Not approved. Canada: In review. USA: Upcoming review.
E,E-9,11-tetradecadien-1-yl acetate E-11-tetradecen-1-yl acetate	-	Light brown apple moth	Pheromone – no concerns
E-11-tetradecenyl acetate E,E-9,11-tetradecadien-1-yl acetate	-	Light brown apple moth	Pheromone – no concerns
Ethyl formate (Po)	8A	Eucalyptus weevil	Australia: APVMA: no current concerns. EU: Not approved.
		Latania scale	
		Obscure mealybug	
		Onion thrips	
Etoxazole	10B	Bryobia mite	Australia: No current concerns. EU: Approved, candidate for substitution. UK: Approved. Canada: No current review. Codex: Pome fruit MRL set at 0.07 mg/kg (2012).
		European red mite	
		Two-spotted mites	

Apple Agrichemical Regulatory Risk Assessment

Fatty acids – K salt	-	Aphids	Australia: No current concerns. Canada: In review.
		Mealybug	
		Two-spotted mite	
		Spider mites	
		Thrips	
		Whitefly	
Fenbutatin oxide	12B	Bryobia mite	Australia: APVMA nominated for reconsideration . EU: Not approved. Canada: In review. USA: Upcoming review. Codex: Pome fruit MRL set at 5 mg/kg (1995). To be reviewed by JMPR.
		European red mite	
		Two-spotted mites	
Fenitrothion	1B	Spur-throated locust, Migratory locust Wingless Grasshopper, Australian Plague Locust	Australia: APVMA: Review – proposed decisions published 9 April 2024. All uses in apples to be cancelled. Final review decision is expected in 2025. EU: Not approved. Canada: No current review. Codex: MRL set at 0.5 mg/kg (2008).
Fenoxycarb	7B	Codling moth	EU: Not approved. UK: Withdrawn.
		Lighbrown apple moth	
		San Jose scale	
Fenpyroximate	21A	European red mite	EU: Approved. UK: Approved. Canada: No current review. Codex: MRL set at 0.2 mg/kg (2018).
		Two-spotted mite	
Fipronil	2B	Ants	Australia: APVMA: Currently under review . Proposed regulatory decision expected by April 2026. EU: Not approved. USA: Upcoming review. Codex: Re-evaluation underway.
		Fruit fly trap toxicant	
Flonicamid	29	Tuber mealybug	Canada: No current review. Codex: Pome fruit MRL set at 0.8 mg/kg (2017).
		Woolly apple aphid	
Hexythiazox	10A	European red mite	EU: Approved. UK: Approved. Canada: No current review. Codex: Pome fruit MRL set at 0.4 mg/kg (2010).
		Two-spotted mites	
Imidacloprid	4A	Woolly apple aphid	Australia: APVMA: Currently under review . Proposed regulatory decisions expected between Dec. 2025 to Oct. 2026.

Apple Agrichemical Regulatory Risk Assessment

			EU: Not approved. Canada: No current review. USA: Upcoming review. Codex: MRL set at 0.5 mg/kg (2004).
Indoxacarb	22A	Apple weevil	EU: Not approved. UK: Withdrawn. Codex: MRL set at 0.5 mg/kg (2006).
		Codling moth	
		Fuller's rose weevil	
		Garden weevil	
		Helicoverpa species	
		Light brown apple moth	
		Red imported fire ant	
		Wingless grasshoppers	
Lambda-cyhalothrin	3A	Mediterranean fruit fly and Queensland fruit fly (PER12961 – SA biosecurity – soil drench)	PER12961 expires 31/03/2030. Australia: No current concerns. EU: Approved, candidate for substitution. UK: Approved. Canada: No current review.
Malathion	1B	Apple leafhopper	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. Codex: MRL set at 0.5 mg/kg (2006). Review underway.
		European red mite	
		Locusts	
		Spider mites	
		Thrips	
		Two-spotted mites	
		Wingless grasshoppers	
		Woolly apple aphid	
		Fruit flies	
Codling moth			
Methomyl	1A	Apple dimpling bug (yellow mirid)	Australia: APVMA reconsideration . Prioritised to be commenced by 2026. EU: Not approved. Canada: In review. USA: Upcoming review. Codex: MRL set at 0.3 mg/kg (2010).
		Codling moth	
		Helicoverpa species	
		Light brown apple moth	
		Plague thrips	
		Thrips	
Methoxyfenozide	18	Light brown apple moth	EU: Approved, candidate for substitution. UK: Approved. Canada: In review.
		Loopers	

Apple Agrichemical Regulatory Risk Assessment

			Codex: Pome fruit MRL set at 2 mg/kg (2005).
Milbemectin	6	European red mite	EU: Approved.
		Two-spotted mites	UK: Withdrawn.
Nuclear polyhedrosis virus of <i>Helicoverpa armigera</i>	-	<i>Helicoverpa armigera</i>	Australia: No current concerns.
		<i>Helicoverpa punctigera</i>	EU: Approved.
Nuclear polyhedrosis virus of <i>Helicoverpa zea</i>	-	<i>Helicoverpa armigera</i>	Australia: No current concerns.
		<i>Helicoverpa punctigera</i>	
		European red mite	
		Woolly apple aphid	
Paraffinic oil / petroleum oil	UNM	Two-spotted mite	Australia: No current concerns.
		Mites	
		Spider mites	
		Bryobia mite	
		European red mite	
		Frosted scale	
		Oystershell scale, prune scale	
		San Jose scale	
		Scale insects	
		Armoured (hard) scales	
		Pear scale	
Pirimicarb	1A	Woolly apple aphid	Australia: No current concerns. EU: Approved, candidate for substitution. UK: Approved. Canada: No current review. USA: No registrations. Codex: Pome fruit MRL set at 1 mg/kg (2007). JMPR periodic re-evaluation scheduled for 2025.
Propargite	12C	European red mite	Australia: APVMA reconsideration . Prioritised to be commenced by 2029. EU: Not approved. Canada: No current review. USA: Upcoming review.
		Mites	
		Two-spotted mites	
Pyrethrins	3A	Ants	Australia: No current concerns.
		Aphids	EU: Approved.
		Apple leafhopper	UK: Approved.

Apple Agrichemical Regulatory Risk Assessment

		Caterpillars	Canada: No current review.
		Codling moth	
		Earwigs	
		Plague thrips	
		Thrips	
Pyridaben	21A	European red mite	Australia: No current concerns. EU: Approved. UK: Approved. Canada: No current review.
		Two-spotted mites	
Pyriproxyfen	7C	Red imported fire ant (PER87728)	PER87728 expires 28/02/2026.
S-methoprene	7A	Red imported fire ant (PER81094 & PER90213)	PER81094 expires 31/05/2026, PER90213 expires 30/06/2027.
Spinetoram	5	Caterpillars	PER12590 expires 31/05/2029. Australia: No current concerns. EU: Not approved. UK: Withdrawn. Canada: In review. Codex: Pome fruit MRL set at 0.05 mg/kg (2009).
		Codling moth	
		Helicoverpa species	
		Light brown apple moth	
		Loopers	
		Oriental fruit moth	
		Pear and cherry slug	
		Wester flower thrips	
		Fruit flies (PER12590)	
Spinosad	5	Helicoverpa species	PER80719 expires 31/03/2028. PER89870 expires 31/07/2025. Australia: Reviewed in 2014. No current concerns. EU: Approved. UK: Approved. Canada: In review. Codex: MRL set at 0.1 mg/kg (2004).
		Light brown apple moth	
		Loopers	
		Pera and cherry slug	
		Wester flower thrips	
		Fruit flies (PER80719 – lures bait spray)	
		Fall armyworm (PER89870)	
Spirotetramat	23	Longtailed mealybug	Australia: No current concerns. EU: Not approved. UK: Approved. Canada: In review. Codex: Pome fruit MRL set at 0.7 mg/kg (2009).
		San Jose scale	
		Tuber mealybug	
		Woolly apple aphid	
Sulfoxaflor	4C	Apple dimpling bug (yellow mirid)	Australia: No current concerns. EU: Approved. UK: Approved.
		Longtailed mealybug	
		San Jose scale	

Apple Agrichemical Regulatory Risk Assessment

		Tuber mealybug	Canada: No current review.
		Woolly apple aphid	Codex: Pome fruit MRL set at 0.3 mg/kg (2015).
Sulfur	UN	Bryobia mite	Australia: No current concerns.
		European red mite	
		Pear leaf blister mite	
		San Jose scale	
Tau-fluvalinate	3A	Apple dimpling bug (yellow mirid)	EU: Approved.
		Plague thrips	UK: Approved.
Tebufenozide	18	Codling moth	EU: Approved.
		Light brown apple moth	UK: Approved.
			Canada: No current review.
			Codex: Pome fruit MRL set at 1 mg/kg (1999).
Tebufenpyrad	21A	European red mite	EU: Approved, candidate for substitution.
		Two spotted mite	UK: Approved.
			Canada: No current review.
Tetraniliprole	28	Apple weevil	Australia: No current concerns.
		Codling moth	Canada: No current review.
		Fuller's rose weevil	Codex: Pome fruit MRL set at 0.4 mg/kg (2023).
		Garden weevil	
		Light brown apple moth	
Thiacloprid	4A	Apple dimpling bug (yellow mirid)	PER14562 expires 31/05/2027.
		Codling moth	Australia: APVMA: Currently under review . Proposed regulatory decisions expected between Dec. 2025 to Oct. 2026.
		Oriental fruit moth	EU: Not approved.
		Woolly apple aphid	Canada: In review.
		Mediterranean fruit fly (PER14562)	Codex: Pome fruit MRL set at 0.7 mg/kg (2007).
Trichlorfon	1B	Fruit flies	Australia: APVMA nominated for reconsideration .
		Rutherglen bug	EU: Not approved.
			Canada: No current review.
			USA: Upcoming review.

Apple Agrichemical Regulatory Risk Assessment

DISEASES

Active constituent	MoA Group	Disease	Risks & Comments
BCDMH (Bromochlorodimethylhydantoin)	-	Surface sterilization	
Boscalid + pyraclostrobin	7 + 11	Alternaria leaf blotch/fruit spot	Boscalid: Australia: No current concerns. EU: Approved. UK: Approved. Canada: In review. Codex: Pome fruit MRL set at 2 mg/kg (2021). Pyraclostrobin: EU: Approved. UK: Approved. Canada: In review.
		Black spot	
		Powdery mildew	
Bupirimate	8	Powdery mildew	EU: Approved. UK: Approved.
Captan	M4	Black spot	EU: Approved. UK: Approved. Canada: No current review. Codex: Pome fruit MRL set at 15 mg/kg (2008). Scheduled for review in 2025.
Chlorine (calcium / sodium hypochlorite)	M	Surface diseases and pests – post harvest (PER10822)	PER10822 expires 30/11/2025.
Copper	M1	Bitter rot	Australia: No current concerns.
		Black spot	
		Fly speck	
		Ripe fruit rot	
		Sooty blotch	
Cyproconazole + iodocarb	3 + 28	Silver leaf	Cyproconazole: Australia: APVMA nominated for reconsideration EU: Not approved. UK: Withdrawn. Iodocarb: Australia: No current concerns
Cyprodinil	9	Black spot	Australia: No current concerns. EU: Approved, candidate for substitution. UK: Approved. Canada: In review. Codex: Pome fruit MRL set at 2 mg/kg (2014).
Cyprodinil + fludioxonil	9 + 12	Alternaria leaf and fruit blotch	Cyprodinil: Australia: No current concerns.

Apple Agrichemical Regulatory Risk Assessment

		(suppression)	EU: Approved, candidate for substitution. UK: Approved. Canada: In review. Codex: Pome fruit MRL set at 2 mg/kg (2014). Fludioxonil: Australia: No current concerns. EU: Approved, candidate for substitution. UK: Approved. Canada: No current review.
DPA (diphenylamine)	-	Superficial scald	EU: Not approved. Canada: In review. Codex: MRL set at 10 mg/kg (2003).
Difenoconazole	3	Black spot Powdery mildew	Australia: APVMA nominated for reconsideration after 2029. EU: Approved, candidate for substitution. UK: Approved. Canada: In review. Codex: Pome fruit MRL set at 4 mg/kg (2018).
Dithianon	M9	Alternaria leaf blotch / fruit spot Bitter rot Black spot	EU: Approved. UK: Approved. Canada: No current review. Codex: Pome fruit MRL set at 1 mg/kg (2014).
Dodine	U12	Black spot	EU: Approved. UK: Approved. Canada: In review. Codex: Pome fruit MRL set at 5 mg/kg (2005).
Fluazinam	29	White root rot	EU: Approved. UK: Approved. Canada: In review.
Fludioxonil	12	Blue mould Grey mould	Australia: No current concerns. EU: Approved, candidate for substitution. UK: Approved. Canada: No current review.
Fluopyram + trifloxystrobin	7 + 11	Black spot Powdery mildew Alternaria leaf blotch / fruit spot	Fluopyram: EU: Approved. UK: Approved. Canada: No current review. Codex: Pome fruit MRL set at 0.5 mg/kg (2013). Trifloxystrobin: Australia: No current concerns. EU: Approved.

Apple Agrichemical Regulatory Risk Assessment

			UK: Approved. Canada: In review.
Fluxapyroxad	7	Alternaria leaf blotch / fruit spot	EU: Approved.
		Black spot	UK: Approved.
		Powdery mildew	Canada: No current review. Codex: Pome fruit MRL set at 0.9 mg/kg (2013).
Fosetyl-Aluminium	33	Phytophthora trunk / collar rot	Codex: Pome fruit MRL set at 50 mg/kg (2018).
Hexaconazole	3	Black spot, Scab (<i>Venturia inaequalis</i>) Powdery mildew (<i>Podosphaeria leucotricha</i>)	Australia: No current concerns. EU: Not approved. Not permitted for use on food or feed crops in EU member states as of 2025. Proposed addition to Rotterdam Convention's Prior Informed Consent (PIC) procedure Canada: No current review.
Imazalil	3	Blue mould	
Iodine (post-harvest)	M	Bactericide / fungicide	Australia: No current concerns. Canada: No current review.
Iprodione	2	Blue and green moulds	Australia: No current concerns.
		Blue mould	EU: Not approved. Not renewed due to concerns over toxicity and potential endocrine-disrupting effects. MRLs are set at or near the limit of detection.
		Botrytis blight	Canada: Several food crop uses deleted.
		Ripe fruit rot	USA: Upcoming review.
		Storage rot	Codex: Review scheduled.
Isopyrazam	7	Black spot	Codex: Pome fruit MRL set at 0.4 mg/kg (2018).
		Powdery mildew	EU: no longer approved in the EU due to its classification as carcinogenic and toxic for reproduction
Kresoxim-methyl	11	Black spot	EU: Approved.
		Powdery mildew	UK: Approved. Canada: No current review. Codex: Pome fruit MRL set at 0.15 mg/kg (2021).
Mancozeb	M3	Bitter rot	Australia: <i>APVMA reconsideration</i> . Prioritised to be commenced by 2027.
		Black spot	EU: Not approved.
		Fly speck	UK: Withdrawn.
		Powdery mildew	Canada: No current review.
		Ripe fruit rot	USA: Upcoming review.
		Sooty blotch	Codex: Pome fruit MRL set at 5 mg/kg (2005). Periodic review by JMPR starting in 2025.
		Target spot (early blight)	

Apple Agrichemical Regulatory Risk Assessment

Mefentrifluconazole	3	Alternaria leaf blotch / fruit spot	EU: Approved.
		Black spot	UK: Approved.
		Powdery mildew	Canada: In review. Codex: Pome fruit MRL set at 1.5 mg/kg (2023).
Metiram	M3	Alternaria leaf blotch / fruit spot (PER12864)	PER12864 expires 30/06/2026. Australia: APVMA reconsideration . Prioritised to be commenced by 2027.
		Bitter rot	EU: Not approved.
		Black spot	UK: Approved.
		Fly speck	Canada: No current review.
		Ripe fruit rot	Codex: Pome fruit MRL set at 5 mg/kg (2005). Periodic review by JMPR starting in 2025.
		Sooty blotch	
Myclobutanil	3	Black spot	Australia: APVMA nominated for reconsideration .
		Powdery mildew	EU: Not approved. UK: Withdrawn. Canada: In review. Codex: Pome fruit MRL set at 0.6 mg/kg (2015).
Penconazole	3	Black spot	Australia: Removed from APVMA Chemical Review priority.
		Powdery mildew	Canada: No current review. EU: Approved. UK: Approved. Codex: MRL set at 0.1 mg/kg (2017).
Penthiopyrad	7	Black spot	Australia: No current concerns.
		Powdery mildew	EU: Approved. UK: Approved. Canada: No current review. Codex: Pome fruit MRL set at 0.4 mg/kg (2014).
Petroleum oil	-	Powdery mildew	Australia: No current concerns.
Polyoxin-D zinc salt	19	Alternaria leaf blotch / fruit spot	Canada: No current review.
		Powdery mildew	
Potassium bicarbonate	M2	Powdery mildew	Australia: No current concerns. Canada: In review.
Proquinazid	13	Powdery mildew	EU: Approved. UK: Approved.
Pyrimethanil	9	Blue mould	EU: Approved.
		Grey mould	UK: Approved.
		Ripe fruit rot	Canada: In review. Codex: Pome fruit MRL set at 15 mg/kg (2014).

Apple Agrichemical Regulatory Risk Assessment

Quintozene	14	Collar rot	EU: Not approved. Canada: No current review. Codex: Re-evaluation.
Sulfur	M2	Black spot Powdery mildew	Australia: No current concerns.
Tebuconazole	3	Silver leaf	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 1 mg/kg (2012).
Thiabendazole	1	Blue mould Grey mould Ripe fruit rot	EU: Approved. UK: Approved. Canada: No current review. Codex: Pome fruit MRL set at 3 mg/kg (2003).
Thiram	M3	Black spot Ripe fruit rot	Australia: APVMA reconsideration . Prioritised to be commenced by 2027. EU: Not approved. Canada: No current review. Codex: Pome fruit MRL set at 5 mg/kg (2005). Periodic review by JMPR starting in 2025.
Trifloxystrobin	11	Black spot Powdery mildew	Australia: No current concerns. EU: Approved. UK: Approved. Canada: In review. Codex: Pome fruit MRL set at 0.7 mg/kg (2006).
Triforine	3	Black spot Powdery mildew	Australia: Completed. EU: Not approved. Canada: No current review.
Zineb	M3	Bitter rot Black spot Sooty blotch	Australia: APVMA reconsideration . Prioritised to be commenced by 2027. EU: Not approved. Canada: No current review. Codex Pome fruit MRL set at 5 mg/kg (2005). Periodic review by JMPR starting in 2025.
Ziram		Bitter rot	Australia: APVMA reconsideration . Prioritised to be commenced by

Apple Agrichemical Regulatory Risk Assessment

	M3	Black spot	2027. EU: Approved, candidate for substitution. UK: Withdrawn. Canada: No current review. Codex: Pome fruit MRL set at 5 mg/kg (2005). Periodic review by JMPR starting in 2025.
--	-----------	------------	---

PLANT GROWTH REGULATORS

Active constituent	Claim	Risks & Comments
1-methylcyclopropene	Improve fruit quality post-harvest.	EU: Approved. UK: Approved. Canada: No current review.
6-benzyladenine	Reducing fruit set, increasing fruit size and improving firmness of harvested apples.	EU: Approved. UK: Approved.
Ammonium thiosulphate	Desiccation of blossoms and reduction of fruit set.	
AVG (aminoethoxyvinylglycine)	Manage maturation in the orchard and increase fruit size and storage potential.	
Carbaryl	Fruit thinning	Australia: No current concerns. EU: Not approved. Canada: In review. USA: Upcoming review.
Cyanamide	Regulation of bud break.	
Ethephon	Advancement of maturity, improvement of red colour, thinning, loosening, retard vegetative growth and stimulate flowering in following season.	EU: Approved. UK: Approved. Canada: No current review. Codex : MRL set at 0.8 mg/kg (2016).
Gibberellins	For the improvement of fruit shape and increase in fruit size.	EU: Approved. UK: Approved. Canada: In review.
Metamitron	Fruit thinning	EU: Approved. UK: Approved. Canada: No current review.
NAA (naphthylacetic acid)	Fruit thinning and controlling fruit drop.	
Paclobutrazol	Reduce vegetative growth.	EU: Approved, candidate for substitution. UK: Approved.

Apple Agrichemical Regulatory Risk Assessment

		Canada: In review.
Prohexadione-calcium	Reduction of shoot growth.	

WEEDS

Active constituent	MoA Group	Weed	Risks & Comments
2,2-DPA as Na salt	0	Various grasses.	
Amitrole	34	Various broadleaf weeds and grasses.	Australia: APVMA nominated for reconsideration . Canada: No current review. Codex: Pome fruit MRL set at 0.05 mg/kg (2004).
Asulam	18	Various broadleaf weeds and grasses.	
Carfentrazone-ethyl	14	Various broadleaf weeds.	EU: Approved. UK: Approved. Canada: In review.
Clethodim (non-bearing trees)	1	Various grasses.	Australia: No current concerns. EU: Approved. UK: Approved. Canada: No current review.
Dichlobenil	29	Various broadleaf weeds and grasses.	EU: Not approved. Canada: In review.
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 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. Codex: Pome fruit MRL set at 0.01 mg/kg (2017).
Flumioxazin	14	Various broadleaf weeds and grasses.	EU: Approved. Canada: In review. Codex: Pome fruit MRL set at 0.02 mg/kg (2016).
Glufosinate-ammonium	10	Various broadleaf weeds and grasses.	Australia: APVMA: Nominated for targeted spray drift reconsideration (potential risk)

Apple Agrichemical Regulatory Risk Assessment

			to vegetation, natural aquatic and bystander areas). Canada: In review. Codex: Pome fruit MRL set at 0.1 mg/kg (2013).
Glyphosate	9	Various broadleaf weeds and grasses.	Australia: APVMA nominated for reconsideration for targeted spray drift reconsideration. EU: Approved. UK: Approved. Canada: No current review. USA: Upcoming review.
Haloxyfop-p	1	Various grasses.	Codex: Pome fruit MRL set at 0.02 mg/kg (2011).
Isoxaben (non-bearing trees)	29	Various broadleaf weeds.	EU: Approved. UK: Approved. Canada: No current review.
Norflurazon	12	Various broadleaf weeds and grasses.	EU: Not approved.
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 December 2025 . Codex: Assorted tropical and sub-tropical fruits – inedible peel MRL and Pome fruits (group) set at *0.01 mg/kg (2006). Canada: Not approved. EU and UK: Not approved (2007). USA: Restricted use (under review).
Saflufenacil	14	Various broadleaf weeds.	EU: Not approved. Canada: No current review. Codex: Pome fruit MRL set at 0.01 mg/kg (2012).
Simazine	5	Various broadleaf weeds and grasses.	EU: Not approved.
Terbacil	5	Various broadleaf weeds and grasses.	EU: Not approved. Canada: In review.
Trifluralin	3	Various broadleaf weeds and grasses.	EU: Not approved.

Apple Agrichemical Regulatory Risk Assessment

			Canada: No current review. USA: Upcoming 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

Apple Agrichemical Regulatory Risk Assessment