

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Regulatory pressures on agrichemicals are increasing globally, with many being either restricted or withdrawn from use.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

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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
Chlorpyrifos	1B	-	APVMA final Review decision October 2024. Use to cease 30 September 2025 PER13642 V3 (02/04/2025) removed chlorpyrifos use pattern. Codex: MRLs revoked. Canada: Cancelled (2021). EU and UK: Not approved (approval not renewed in 2020 – health concerns). USA: Cancelled (2021).
Indoxacarb	22A	Red imported fire ant Tropical fire ant	Canada: Cancelled 2021 with all products phased out 2024 (environmental concerns). Codex: Tree nut MRL set at 0.07 mg/kg (2023). EU and UK: Not approved (approval not renewed in 2021 - environmental and safety concerns). USA: Registered.
Malathion	1B	PER13642 for Australian plague locust	PER13642 expires 30/04/2030. Codex: Re-evaluation scheduled for this year 2025. APVMA reconsideration — two-year phase-out period to 01/05/2026 for certain labels as listed in the APVMA 02/05/2024 Gazette. UK: Withdrawn. EU: Use restricted to permanent greenhouses. USA: Registered (under review).
Potassium salts of fatty acids	-	Aphids Thrips Mealybug Two-spotted mite Spider mite Whitefly	
Pyriproxyfen	7C	Invasive and nuisance ants including Red Imported Fire Ant, Tropical Fire Ant, Bigheaded Ant, Yellow Crazy Ant, Black	

		Ants, Singapore Ant and other Monomorium spp.	
		Pony Ants (incl. Green Ants), Meat Ants,	
		Tyrant Ants, Green Tree Ants, Longlegged	
		Ants, Sugar Ants and Pennant Ants.	
S-methoprene	7A	Yellow crazy ants	PER91817 expires 31/03/2026.
			EU/UK: No authorisations in place
		Red imported fire ant (PER81094 & PER90213)	PER81094 expires 31/05/2026, PER90213 expires 30/06/2027.
Sulfoxaflor	4C	Aphids (including black peach aphid and	Codex: Tree nut MRL set at 0.03 mg/kg (2019).
		green peach aphid)	Canada: Restricted (bee concerns)
			EU and UK: Restricted to glasshouses (bee concerns)
			USA: Restricted (bee concerns)
Sulfuryl fluoride	8C	All life stages of stored product pests	
		including: Indian meal moth,	
		Mediterranean flour moth, confused	
		flour beetle, rust red flour beetle,	
		warehouse beetle, saw-toothed grain	
		beetle, dried fruit moth, drugstore	
		beetle, tobacco beetle, hide beetle, grain	
		weevil, rice weevil, rusty grain beetle,	
		lesser grain borer.	

^{*}UN = unclassified

DISEASES

Active constituent	MoA Group	Disease	Risks & Comments
Chlorine present as Sodium hypochlorite	М	PER13640 for surface moulds (post- harvest)	PER13640 expires 31/05/2028.
Copper	M1	Shot hole, Leaf curl, Brown rot, Freckle	EU and UK: Approved but not for use on almonds (some restrictions). EU: Candidates for substitution
Fludioxonil	12	Suppression of surface moulds and fungal rots (post-harvest diseases).	EU: Under review, & candidate for substitution
Hydrogen peroxide + peroxyacetic acid	М	PER91058 for surface moulds (post-harvest)	PER91058 expires 30/06/2026.

Iprodione	2	PER83636 for surface moulds and fungal rots (suppression only) (post-harvest)	PER83636 expires on 31/03/2027. Codex: MRL set at 0.3 mg/kg (2024). Canada: Registered (but in 2018, several uses cancelled due to human health and environmental concerns. EU: Not approved (approval not renewed in 2017 due to groundwater contamination concerns and long-term risks to aquatic organisms). UK: Not approved (phased out in 2018).
Metalaxyl-M	4	PER90388 for root and collar rot.	PER90388 expires 31/01/2029.
Penthiopyrad	7	Brown rot (Blossom blight)	Codex: Tree nut MRL set at 0.05 mg/kg (2013).
Phosphorous (phosphonic) acid	33	Phytophthora trunk (suppression only) Root canker (suppression only)	

WEEDS

Active constituent	MoA Group	Weed	Risks & Comments
Carfentrazone-ethyl	14	Various broadleaf weeds.	
Diquat	22	Various broadleaf weeds and grasses.	APVMA proposed decisions published July 2024. Use in orchards to be removed including tree nuts <u>December 2025</u> . Codex: No MRL EU: Not approved (withdrawn in 2018). UK: Not approved. USA: Registered (under review).
Flumioxazin	14	Various broadleaf weeds and grasses.	Codex: Tree nut MRL set at 0.02 mg/kg (2016).
Glufosinate-ammonium	10	Various broadleaf weeds and grasses.	APVMA: Nominated for targeted spray drift reconsideration (potential risk to vegetation, natural aquatic and bystander areas). Codex: Tree nut MRL set at 0.1 mg/kg (2013). Canada: Under re-evaluation. EU: Not approved (approval expired 2018. Candidate for Substitution due to reproductive toxicity concerns). UK: Not approved for any uses. USA: Registered (under review).
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: Review upcoming
Haloxyfop-p	1	Various broadleaf weeds and	Canada: Limited registration.
		grasses.	EU: Not approved (withdrawn (2020).
			UK: Not approved.
			USA: Registered.
Isoxaben	29	Various broadleaf weeds.	
Oryzalin	3	Various broadleaf weeds and	EU: No authorisation in place
		grasses.	
Oxyfluorfen	14	Various broadleaf weeds and	EU: Candidate for substitution USA: Interim review decision
		grasses.	Label amendments proposed
Paraquat	22	Various broadleaf weeds and	APVMA proposed decisions July 2024 (use in orchards to be
		grasses	removed including tree nuts <u>December 2025</u>).
			Codex: Tree nut MRL set at 0.05 mg/kg (2006).
			Canada: Not approved.
			EU and UK: Not approved (2007).
			USA: Registered (under review).
Pendimethalin	3	Various broadleaf weeds and	Codex: Tree nut MRL set at 0.05 mg/kg (2017).
		grasses.	
Trifluralin	3	Various broadleaf weeds and	EU: Not approved.
		grasses.	Canada: No current review.
			USA: Upcoming review.

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