

Litchi/Lychee Agrichemical Regulatory Risk Assessment

September 2023

Regulatory pressures on agrichemicals are increasing globally, with many being either restricted or withdrawn from use.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 chemicals 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 farm chemicals 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 prohibiting the use in the exporting country to ensure compliance, as breaches of MRLs would adversely affect market access.

The effects of the above are greater pressure placed on the availability and use of individual chemicals or chemical groups. As a consequence, it is possible that 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 litchi as well as current initiatives aimed at addressing identified pest management deficiencies.

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R1	Short-term: Critical concern over retaining access
R2	Medium-term: Maintaining access of significant concern
R3	Long-term: Potential issues associated with use - Monitoring required

Active Constituents	Chemical Group	Problem	Comment
INSECT AND OTHER PESTS			
Abamectin	6	Litchi erinose mite Two-spotted spider mite	EU: Restricted use to permanent greenhouses
Acetamiprid + pyriproxyfen	4A + 7C	Fruit flies–Suppression(PER89943)	Acetamiprid
		Fruit-spotting bug (PER89943)	APVMA: Under review
		Mealybugs (PER89943)	EU: Under review
		Plant hoppers (PER89943)	
Beta-cyfluthrin	3A	Banana-spotting bug (PER80374)	EU: No authorisation in place
		Elephant/Rhinoceros beetle(PER80374)	
		Fig longicorn/ trunk borer (PER80374)	
		Fruit-spotting bug (PER80374)	
		Lychee stink bug (PER80374)	
		Macadamia nut borer(PER80374)	
		Mango shoot caterpillar(PER80374)	
		Red shouldered leaf beetle (PER80374)	
		Swarming leaf beetles(PER80374)	
Yellow peach moth(PER80374)			
Buprofezin	16	Flatid planthoppers (PER88401)	EU: MRLs set to limit of quantification
		Mealybugs(PER88401)	
		Scale insects(PER88401)	
Carbaryl	1A	Macadamia nut borer	Canada: Reviewed, large number of uses deleted
		Red shouldered leaf beetle	Codex: Review scheduled, support uncertain
		Swarming leaf beetles	EU: Authorisation not renewed
		Yellow peach moth	USA: Under review

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Active Constituents	Chemical Group	Problem	Comment
Dimethoate	1B	Litchi erinose mite	Codex: No MRL.
		Fruit fly orchard clean-up following harvest (PER13859)	EU: Not authorised
Fatty acids: K salt	UN	Aphids	
Flupyradifurone	4D	Banana spotting bug/Fruit spotting bugs	EU: Under review
		Green plant hopper	
		Mango plant hopper	
Maldison	1B	Fruit flies (bait spray)	APVMA: Under review Codex: Re-evaluation scheduled for 2025/26 EU: Restricted use to permanent greenhouses
Methoxyfenozide	18	Macadamia nut borer	EU: Proposed restricted authorisation & Candidate for substitution
		Mango shoot looper (PER91798)	
Paraffinic oil/ petroleum oil	UNM	Citrus mealybug	
		Green shield scale (PER91168)	
		Scale insects	
		Soft scales (PER91168)	
Pyrethrins	3A	Fruit flies	Canada: Under review
Pyriproxyfen	7C	Ants	
Spinetoram	5	Flower eating caterpillars	
		Leafroller caterpillars	
		Loopers	
		Redbanded thrips	
		Sorghum head caterpillar	
		Yellow peach moth	

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Spinosad	5	Flower eating caterpillars	
		Leafroller caterpillars	
		Loopers	
		Redbanded thrips	
		Sorghum head caterpillar	
		Yellow peach moth	
		Fall armyworm (PER89870)	
Sulfoxaflor	4C	Banana-spotting bug	USA: Pollinator concerns EU: Restricted to permanent glasshouses only
		Fruit-spotting bug	
		Mealybug	
		White louse scale	
Tebufenozide	18	Macadamia nut borer	
Tetraniliprole	28	Mango shoot looper (PER92133)	EU: No authorisation
Trichlorfon	1B	Fruit flies (PER12450)	APVMA: nominated for review Codex: No MRLs EU: No authorisations USA: No MRLs
		Fruit flies (Bait spray)	
		Banana-spotting bug (PER14743)	
		Flower eating caterpillars (PER14743)	
		Fruit-spotting bug (PER14743)	
		Loopers (PER14743)	
Yellow peach moth (PER14743)			

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DISEASES			
Copper	M1	Algal spot	EU: Candidates for substitution
		Anthracnose/Pepper spot (PER13660)	
		Phytophthora	
		Trunk (stem) canker	
DDAC		Sanitizer	EU: No authorisation
Cyprodinil + fludioxonil	9 + 12	Anthracnose/Pepper spot (PER88197)	<u>Cyprodinil</u> Canada: Under review EU: Candidate for substitution <u>Fludioxonil</u> EU: Under review, & candidate for substitution
Fluopyram + trifloxystrobin	7 + 11	Anthracnose/Pepper spot	<u>Trifloxystrobin</u> Canada: Under review
Mancozeb	M3	Anthracnose/Pepper spot (PER13659)	APVMA: nominated for review Canada: Many uses cancelled Codex: To be reviewed 2024/25 EU: Authorisation not renewed
Prochloraz	3	Anthracnose/Pepper spot (PER80369)	Codex: Periodic re-evaluation scheduled EU: No authorisation
Pyraclostrobin	11	Anthracnose/Pepper spot (PER80367)	Canada: Under review

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Active Constituents	Chemical Group	Comment
WEEDS		
Carfentrazone-ethyl	14	
Clethodim (non-bearing)	1	Codex: MRLs proposed for deletion
Diquat	22	APVMA: Currently under review EU: No authorisation in place
Fluazifop	1	
Glufosinate	10	Canada: Review proposed EU: No authorisation in place
Glyphosate	9	Ongoing issues internationally EU: Under review
Haloxyfop-P	1	EU: No authorisation in place
Isoxaben (non-bearing)	29	
Oxyfluorfen	14	EU: Candidate for substitution USA: Interim decision Label amendments proposed
Paraquat	22	APVMA: Currently under review Canada: Review initiated EU: No authorisation in place Rotterdam Convention - nomination
Pendimethalin	3	EU: Candidate for substitution
PLANT GROWTH REGULATORS		
Ethephon (PER81753)		
Triclopyr (Drop prevention)		

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