

Blueberry 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Regulatory pressures on agrichemicals are increasing globally, with many being either restricted or withdrawn from use.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 requiring 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 so as 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. 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 blueberries 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	Fruit fly (Bait spray)	APVMA: Nominated for spray drift label review
		Six-spotted mite (PER91106)	Canada: Some uses amended, others cancelled
		Two-spotted mite (PER91106)	EU: Use restricted to permanent greenhouses
Alpha-cypermethrin	3A	Fruit flies (PER90027)	EU: Approval withdrawn, grace period expired December 2022 UK: Approval withdrawn
Bifenthrin	3A	Elephant weevil	Canada: Not authorised
		Monolepta beetle (PER84972)	EU: Not authorised
		Plague thrips (PER84972)	
Botanical oil	UNE	Two-spotted mites (PER14234)	
Chlorantraniliprole	2B	Caterpillars (PER84178)	
Chlorpyrifos	1B	European earwig (PER90216)	APVMA: Under review
		Scarab Beetles (PER90666)	Codex: All MRLs revoked Canada: Cancellation of all uses. EU: No authorisation in place USA: EPA decision to cancel use on food crops
Diazinon	1B	Scale insects	APVMA: Under review EU: No authorisation in place Codex: Withdrawal of Codex MRLs recommended

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Active Constituents	Chemical Group	Problem	Comment
Dimethoate	1B	Aphids	Codex: No MRL. EU: Not authorised
		Fruit flies(PER13859) After harvest Orchard clean-up	
		Jassids	
		Queensland fruit fly(PER88174 Qld)	
		Redlegged earth mite	
		Rutherglen bug	
		Spider mites (Red spider)	
		Strawberry bug	
Thrips			
Emamectin benzoate	6	Lepidopteran pests (PER85422)	EU: Candidate for substitution
Ethyl formate(Po)	8A	Lightbrown apple moth	EU: No authorisation
		Plague thrips	
		Two-spotted (Red spider) mite	
		Western flower thrips	
Fipronil	2B	English wasp	APVMA: Under review
		European wasp	Codex: Re-evaluation underway EU: No authorisation in place USA: Under review
Helicoverpa NPV	31	Helicoverpa species	
Imidacloprid	4A	Scarab beetles – Larvae (PER12534)	APVMA: Under review Canada: Field uses cancelled or amended EU: No authorisation Grace period expires June 2022 USA: Re-registration with new risk mitigation measures

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Active Constituents	Chemical Group	Problem	Comment
Indoxacarb	22A	Elephant weevil borer (PER13289) Lightbrown apple moth	Canada: No authorisation EU: Not authorised. Grace period expired Sept 2022 UK: Non-renewal proposed
Malathion	1B	Fruit flies (Bait spray)	APVMA: Under review Codex: Re-evaluation scheduled for 2025/26 EU: Restricted use to permanent greenhouses
Methomyl	1A	Caterpillars Helicoverpa species (PER87495) Plague thrips (PER87495) Redshouldered leaf beetle (PER87495)	APVMA: nominated for review Canada: Re-evaluation completed. Majority of uses removed EU: No authorisations in place USA: Under review
Methoxyfenozide	18	Lightbrown apple moth	EU: Candidate for substitution
NPVirus	31	<i>Helicoverpa</i> spp.	
Paraffinic oil	UNM	Mites Scale insects	
Pirimicarb	1A	Aphids	Codex: JMPR re-evaluation scheduled EU: Candidate for substitution
Pyrethrins	3A	Fruit flies Green stink bug (PER80070) Green vegetable bug (PER80070) Redshouldered leaf beetle (PER80070)	Canada: Under review
Spinetoram	5	Caterpillars Helicoverpa species Lightbrown apple moth Loopers Western flower thrips Fruit flies (PER87408)	
Spinosad	5	Helicoverpa species Lightbrown apple moth Loopers Western flower thrips	

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Active Constituents	Chemical Group	Problem	Comment
Spirotetramat	23	Soft brown scale White wax scale (PER91301)	
Sulfoxaflor	4C	Cottonseed bug (PER91327)	USA: Pollinator concerns
		Flatid Leaf Hopper (PER91327)	EU: Use restricted to permanent glasshouses only
		Green Peach Aphid (PER91327)	
		Green Stink Bug (PER91327)	
		Scale insects (PER91327)	
Tebufenozide	18	Lepidopteran pests (PER91907)	
Trichlorfon	1B	Fruit flies (Bait spray)	APVMA: nominated for review
		Fruit flies (PER12486)	Codex: No MRLs EU: No authorisations USA: No MRLs

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Active Constituents	Chemical Group	Problem	Comment
DISEASES			
<i>Agrobacterium tumefaciens</i>	NC	Crown Gall	
<i>Aureobasidium pullulans</i>	NC	Anthracnose	
		Botrytis / Grey mould	
		Phomopsis fruit rot	
		Rhizopus rot	
Azoxystrobin	11	Blueberry Rust (PER89953)	Canada: Review proposed
		Stem Blight and Dieback (PER89953)	
		Twig Blight (PER89953)	
Boscalid + pyraclostrobin	7 + 11	Anthracnose(PER82986)	Boscalid Canada: Under review
		Botrytis / Grey mould(PER82986)	
		Rust(PER82986)	
Captan	M4	Anthracnose(PER13958)	
Chlorothalonil	M5	Botrytis / Grey mould (PER91300)	APVMA: nominated for review Canada: Proposed cancellation of use EU: No authorisation in place USA: Under review
		Downy mildew	
		Rust (PER91300)	
Copper	M1	Rust	EU: Candidate for substitution
		Anthracnose (PER84176)	
Cyprodinil + fludioxonil	9 + 12	Anthracnose (PER84891)	Cyprodinil: Canada: Under review EU: Candidate for substitution Fludioxonil: EU: Under review EU: Candidate for substitution
		Botrytis / Grey mould (PER84891)	
Dithianon	M9	Rust (PER82601)	EU: Restricted use to non-edible crops
Fenhexamid	17	Botrytis / Grey mould (PER86489)	
Iodine		Post-harvest sanitizer	

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Active Constituents	Chemical Group	Problem	Comment
Iprodione	2	Botrytis / Grey mould	Canada: Majority of food crop uses deleted Codex: Review scheduled EU: No authorisation in place USA: Proposed deletion or restriction of uses
Isfetamid	7	Botrytis / Grey mould	
Mancozeb	M3	Botrytis / Grey mould (PER13958)	APVMA: nominated for review Canada: Many uses cancelled Codex: To be reviewed 2024/25 EU: Authorisation not renewed
		Rust(PER13958)	
Metalaxyl & Metalaxyl-M	4	Phytophthora spp. (PER13958)	<u>Metalaxyl</u> EU: Candidate for substitution <u>Metalaxyl-M</u> EU: Restricted use approval
Phosphorous acid	33	Phytophthora spp. (PER13958)	
Polyoxin-D	19	Botrytis / Grey mould	
		Powdery mildew	
		Blueberry rust suppression (PER92997)	
Propiconazole	3	Rust (PER14740)	APVMA: nominated for review EU: No authorisations USA: Under review
Pydiflumetofen + fludioxonil	7 + 12	Grey mould (<i>Botrytis cinerea</i>)	<u>Fludioxonil</u> : EU: Under review & Candidate for substitution <u>Pydiflumetofen</u> EU: Authorisation pending
Pyrimethanil	9	Botrytis / Grey mould(PER13958)	Canada: Under review
Sodium metabisulfite	M	Storage rot	
		Botrytis / Grey mould (PER13955)	

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Active Constituents	Chemical Group	Comment
WEEDS		
Dichlobenil (PER12219)	29	EU: Not authorised
Fluazifop-P (PER86586)	1	
Flumioxazin	14	EU: Candidate for substitution
Glufosinate	10	APVMA: Nominated for spray drift label review Canada: Review proposed EU: No authorisation in place
Glyphosate	9	APVMA: Nominated for spray drift label review Ongoing issues internationally EU: Under review
Haloxyfop-P	1	EU: Not authorised
Oryzalin	3	EU: Not authorised
Paraquat	22	APVMA: Currently under review Canada: Review initiated EU: No authorisation in place Rotterdam Convention - nomination
Simazine	5	APVMA: nominated for review EU: Not authorised
Plant growth regulators		
Ethephon (PER86213)	-	Harvest aid

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