

Green bean 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Regulatory pressures on agrichemicals are increasing globally, with many being either restricted or withdrawn from use.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 green beans 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	Comments
INSECT AND OTHER PESTS			
1,3-dichloropropene + chloropicrin	8B	Nematodes	EU: No authorisation
		Nematodes: Cyst-forming	
Abamectin	6	Vegetable leafminer(PER81876)	APVMA: Nominated for spray drift label review Canada: Some uses amended EU: Use restricted to permanent greenhouses
<i>B thuringiensis</i>	11A	Armyworms	EU: Undergoing authorisation renewal
		Cabbage white butterfly	
		Caterpillars	
		Green looper	
		Helicoverpa	
		Soybean looper	
Bifenthrin	3A	Redlegged earth mite	Canada: Not authorised
		Silverleaf (Poinsettia) whitefly	EU: Not authorised
Chlorantraniliprole	28	Helicoverpa	
Cyromazine	17	Vegetable leafminer (PER81867)	EU: No authorisation

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Active Constituents	Chemical Group	Problem	Comments
Chlorpyrifos	1B	African black beetle	APVMA: Under review
		Black field cricket	Codex: All MRLs revoked
		Black field earwig	Canada: Cancellation of all uses.
		Field crickets, Mole crickets	EU: No authorisation in place
		Migratory locust	USA: EPA decision to cancel use on food crops
		Spotted vegetable weevil	
		Vegetable weevil	
		Wingless grasshopper	
		Spur-throated locust	
		Deltamethrin	3A
Helicoverpa			
Looper caterpillars			
Turnip moth			
Diazinon	1B	Bean blossom thrips	APVMA: Under review
		Bean flower caterpillar	EU: No authorisation in place
		Bean fly	Codex: Deletion of MRLs proposed
Dimethoate	1B	Aphids	Codex: No MRLs
		Bean fly	EU: Not authorised
		Bugs	
		Cowpea aphid	
		Green vegetable bug	
		Jassids	
		Leafhoppers	
		Lucerne flea	
		Mites	
		Redlegged earth mite	
		Spider mites (Red spider)	
		Thrips	
		Wingless grasshopper	

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Active Constituents	Chemical Group	Problem	Comments
Emamectin benzoate	6	Cluster caterpillar	EU: Candidate for substitution
		Helicoverpa	
		Looper caterpillars	
Esfenvalerate	3A	Helicoverpa	EU: Candidate for substitution
		Plague thrips	
Fenitrothion	1B	Spur-throated locust	APVMA: Under review EU: No authorisation
Flupyradifurone	4D	Green peach aphid	EU: Under review
		Silverleaf (Poinsettia) whitefly	
Helicoverpa NPV	31	Helicoverpa	
Imidacloprid	4A	Silverleaf (Poinsettia) whitefly (PER85103/PER12351)	APVMA: Under review Canada: Field uses cancelled or amended EU: No authorisation USA: Re-registration with new risk mitigation measures
Lambda-cyhalothrin	3A	Turnip moth	EU: Candidate for substitution
Malathion/Maldison	1B	28-spotted potato ladybird	APVMA: Under review Codex: Re-evaluation scheduled for 2025/26 EU: Restricted use to permanent greenhouses
		Aphids	
		Australian plague locust	
		Cabbage white butterfly	
		Green vegetable bug	
		Jassids	
		Leafhoppers	
		Lucerne flea	
		Redlegged earth mite	
		Rutherglen bug	
		Spur-throated locust	
		Thrips	

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Active Constituents	Chemical Group	Problem	Comments
Metaldehyde		Brown field slug	UK: Outdoor use being phased-out from 31 March 2022
		Pointed (Conical) snail	
		Reticulated (Grey field) slug	
		Slugs	
		Small brown snail	
		Snails	
		White Italian (Sand dune) snail	
Methomyl	1A	Australian cabbage looper	APVMA: nominated for review Canada: Re-evaluation completed. Majority of uses removed EU: No authorisations in place USA: Under review
		Bean fly	
		Bean podborer	
		Bean thrips	
		Cluster caterpillar (PER82428)	
		Green vegetable bug	
		Helicoverpa (PER82428)	
		Looper caterpillars (PER82428)	
		Rutherglen bug (PER82428)	
		Thrips	
		Webworms (PER82428)	
		Western flower thrips (PER82428)	
		Omethoate	
Lucerne flea			
Pasture mite			
Redlegged earth mite			
NPV Helicoverpa	31	Helicoverpa spp.	
Paraffinic / petroleum oil	UNM	Leafhoppers	
		Aphids	
		Mites	
		Thrips	

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Active Constituents	Chemical Group	Problem	Comments
Permethrin	3A	Helicoverpa	Codex: Re-evaluation scheduled. Support uncertain
		Tobacco budworm	EU: No authorisation
Pirimicarb	1A	Cowpea aphid	Codex: JMPR re-evaluation scheduled EU: Candidate for substitution
Propargite	12C	Spider mites (Red spider)	APVMA: nominated for review
		Two-spotted (Red spider) mite	EU: No authorisations USA: Under review
Pyrethrins	3A	Bean podborer(PER86551)	Canada: Under review Codex: Under review
Pyriproxyfen	7C	Silverleaf (Poinsettia) whitefly(PER84890)	
Spinetoram	5	Caterpillars	
		Helicoverpa	
		Looper caterpillars	
		Soybean looper	
		Western flower thrips	
		Vegetable leafminer(PER87878)	
Spinosad	5	Helicoverpa	
		Looper caterpillars	
		Fall armyworm(PER89870)	
Spirotetramat	23	Green peach aphid	
		Silverleaf (Poinsettia) whitefly	
		Tomato thrips	
		Western flower thrips	
		Vegetable leafminer(PER88640)	
Spodoptera NPV	31	Fall armyworm(PER90820)	
Spodoptera MNPV	31	Fall armyworm(PER91477)	

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Active Constituents	Chemical Group	Problem	Comments
Thiamethoxam + chlorantraniliprole (Qld only)	4A + 28	Cluster caterpillar (PER87809)	Thiamethoxam:
		Green peach aphid(PER87809)	APVMA: Under review
		Green vegetable bug(PER87809)	Canada: Some field uses cancelled or amended
		Greenhouse whitefly(PER87809)	EU: No authorisations
		Helicoverpa(PER87809)	USA: Re-registration with new risk mitigation measures
		Leafhoppers(PER87809)	
		Silverleaf (Poinsettia) whitefly(PER87809)	
		Soybean looper(PER87809)	
		Thrips(PER87809)	
		Tomato thrips(PER87809)	
		Western flower thrips(PER87809)	
Thiodicarb	1A	Helicoverpa	EU: No authorisations
Trichlorfon	1B	Cutworm	APVMA: nominated for review Codex: No MRLs EU: No authorisations USA: No MRLs

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Active Constituents	Chemical Group	Problem	Comments
DISEASES			
Azoxystrobin	11	Sclerotinia rot	Canada: Review proposed
Bitertanol	3	Rust	EU: No authorisation
Boscalid	7	Sclerotinia rot	Canada: Review initiated
Copper	M1	Bacterial brown spot	EU: Candidates for substitution
		Blight	
		Chocolate spot (Grey mould)	
		Common bacterial blight	
		Halo blight	
Cyprodinil + Fludioxonil	9	Grey mould	<u>Cyprodinil:</u> Canada: Under review EU: Candidate for substitution <u>Fludioxonil:</u> EU: Under review, & candidate for substitution
		Sclerotinia rot	
Fluopyram + trifloxystrobin	7 + 11	Powdery mildew	Trifloxystrobin Canada: Review initiated
Iprodione	2	Fungal diseases: Sclerotinia(PER84955)	Canada: Majority of food crop uses deleted Codex: Under review EU: No authorisation in place USA: Proposed deletion or restriction of uses

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Active Constituents	Chemical Group	Problem	Comments
Mancozeb	M3	Angular leaf spot	APVMA: nominated for review Canada: Many uses cancelled Codex: To be reviewed 2024/25 EU: Authorisation not renewed
		Anthracnose	
		Bacterial brown spot	
		Black spot	
		Chocolate spot (Grey mould)	
		Common bacterial blight	
		Grey mould	
		Halo blight	
		Leaf & pod spot	
		Leaf blight	
		Leaf diseases/spots	
		Rust	
		Mandestrobin	
Metiram	M3	Anthracnose	APVMA: nominated for review Canada: All foliar uses, except on potato, cancelled Codex: To be reviewed 2024/25 EU: No authorisation
		Rust	
Oxycarboxin	7	Rust	EU: No authorisation
Quintozene		Stem & root rot (Rhizoctonia)	Codex: Periodic re-evaluation - unable to finalise assessment EU: No authorisations
Sulfur	M2	Angular leaf spot	
		Anthracnose	
		Chocolate spot (Grey mould)	
		Leaf blight	
		Rust	
Tebuconazole	3	Rust	APVMA: nominated for review Canada: Under review EU: Candidate for substitution USA: Under review
Thiram	M3	Damping off	APVMA: nominated for review Canada: Cancelled all foliar uses (2021) Codex: To be reviewed 2024/25 EU: No authorisation in place

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Active Constituents	Chemical Group	Problem	Comments
Zineb	M3	Anthracnose	APVMA: nominated for review Codex: To be reviewed 2024/25 EU: No authorisation in place
		Rust	

Active Constituents	Chemical Group	Comment
WEEDS		
Acifluorfen	14	EU: No authorisation
Bentazone (PER88064 Tas only)	6	
Chlorthal-dimethyl	3	EU: No authorisation in place
Clethodim (PER91492)	1	Codex: MRLs proposed for deletion
Clomazone	13	
Dimethenamid-P	15	
Diquat	22	APVMA: Currently under review EU: No authorisation in place
Fluazifop-P	1	
Glufosinate	10	Canada: Review proposed EU: No authorisation in place
Glyphosate	9	Ongoing issues internationally EU: Under review
S-metolachlor	15	EU: Non-renewal authorisation
Pendimethalin	3	EU: Candidate for substitution
Quizalofop-P	1	Canada: Under re-evaluation: proposed completion June 2019. EU: Candidate for substitution
Sethoxydim	1	EU: No authorisation in place
Trifluralin	3	EU: No authorisation in place

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