

Sweet potato 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Regulatory pressures on agrichemicals are increasing globally, with many being either restricted or withdrawn from use.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 could 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 available for use 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 sweet potatoes 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
		Symphylids	
Abamectin	6	Leafminer/vegetable leafminer(PER81876)	APVMA: Nominated for spray drift label review Canada: Some uses amended, others cancelled EU: Use restricted to permanent greenhouses
		Tomato/ potato psyllid(PER84249)	
Afidopyropen	9D	Cabbage aphid	EU: Not authorised
		Cotton aphid	
		Currant lettuce aphid	
		Green peach aphid	
		Silverleaf (Poinsettia) whitefly	
Bifenthrin	3A	Sweet potato weevil	Canada: Not authorised EU: Not authorised
		Wireworms	
		Tomato/ potato psyllid (PER84249)	
Carbaryl	1A	Sweet potato weevil	Canada: Reviewed, large number of uses deleted Codex: Review scheduled, support uncertain EU: Authorisation not renewed USA: Under review

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Active Constituents	Chemical Group	Problem	Comments
Chlorantraniliprole +thiamethoxam	28 + 4A	Brown sowthistle aphid	<p><u>Thiamethoxam</u> APVMA: Under review Canada: Some field uses cancelled or amended EU: Not authorised USA: Re-registration with new risk mitigation measures</p>
		Cabbage aphid	
		Cabbage white butterfly	
		Cabbage-centre grub	
		Cluster caterpillar	
		Diamondback (Cabbage) moth	
		Green peach aphid	
		Green vegetable bug	
		Greenhouse whitefly	
		Helicoverpa	
		Leafhoppers	
		Lucerne leafroller	
		Onion (Cotton seedling) thrips	
		Potato moth	
		Psyllids (Lerps)	
		Silverleaf (Poinsettia) whitefly	
		Chlorpyrifos	
Cutworms			
Field crickets			
Mole crickets			
Spotted vegetable weevil			
Vegetable weevil			
Wingless grasshopper			
Sweet potato weevil (PER14583)			
Wireworms (PER14583)			

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Active Constituents	Chemical Group	Problem	Comments
Cyantraniliprole	28	Tomato/ potato psyllid(PER84805)	
Cyromazine	17	Leafminers (PER81867)	EU: No authorisation
Dazomet		Nematodes	
Dimethoate	1B	Aphids	Codex: No MRL EU: Not authorised
		Bugs	
		Green vegetable bug	
		Jassids	
		Leafhoppers	
		Mites	
		Redlegged earth mite	
		Thrips	
		Wingless grasshopper	
Emamectin benzoate	6	Cabbage white butterfly	EU: Candidate for substitution
		Cluster caterpillar	
		Diamondback (Cabbage) moth	
		Helicoverpa	
		Looper caterpillars	
Ethyl formate	8A	Sugarcane bud (Detritus) moth	EU: No authorisation
Fipronil	2B	Mole crickets	APVMA: Under review Codex: Re-evaluation underway EU: No authorisation in place USA: Under review
		Whitefringed weevil	
		Wireworms	
Fluazaindolizine	N-UN	Root-knot nematodes	EU: Pending
Flubendiamide	28	Cabbage white butterfly	
		Cluster caterpillar	
		Diamondback (Cabbage) moth	
		Helicoverpa	
		Potato moth	

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Active Constituents	Chemical Group	Problem	Comments
Fluensulfone		Root-knot nematodes	EU: No authorisation
Flupyradifurone	4D	Green peach aphid	EU: Under review
		Silverleaf (Poinsettia) whitefly	
Helicoverpa NPV	31	Helicoverpa	
Imidacloprid	4A	Silverleaf (Poinsettia) whitefly	APVMA: Under review Canada: Field uses cancelled or amended EU: No authorisation in place expiry of the grace periods (June 2022), USA: Re-registration with new risk mitigation measures
Methomyl	1A	Helicoverpa	APVMA: nominated for review Canada: Re-evaluation completed. Majority of uses removed EU: No authorisations in place USA: Under review
		Cluster caterpillar(PER82428)	
		Cucumber moth(PER82428)	
		Loopers(PER82428)	
		Rutherglen bug(PER82428)	
		Thrips(PER82428)	
		Webworms(PER82428)	
		Western flower thrips PER82428)	
Fall army worm(PER89293)			
Oxamyl	1A	Root-knot nematodes	EU: Candidate for substitution
Phorate	1B	Aphids	APVMA: nominated for review Canada: Under review EU: No authorisation in place
		Jassids	
		Thrips	
		Two-spotted (Red spider) mite	
		Wireworms	
Pirimicarb	1A	Cotton aphid	Codex: JMPR re-evaluation scheduled EU: Candidate for substitution
		Aphids(PER86443)	
		Green peach aphid(PER86443)	
		Melon aphid(PER86443)	

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Active Constituents	Chemical Group	Problem	Comments
Pyriproxyfen	7C	Silverleaf (Poinsettia) whitefly	
Spinetoram	5	Caterpillars	
		Helicoverpa	
		Lightbrown apple moth	
		Loopers	
		Potato moth	
		Tomato/ potato psyllid (PER84757)	
		Leafminers (PER91155)	
Spinosad	5	Helicoverpa	
		Lightbrown apple moth	
		Loopers	
		Potato moth	
		Leafminers (PER90928)	
Spirotetramat	23	Silverleaf (Poinsettia) whitefly	
		Tomato/ potato psyllid(PER84245)	
Spodoptera NPV	31	Fall army worm(PER90820)	
Spodoptera MNPV	31	Fall army worm(PER91477)	
Sulfoxaflor	4C	Green peach aphid	USA: Pollinator concerns
		Tomato/ potato psyllid(PER84743)	EU: Restricted to permanent glasshouses only

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Active Constituents	Chemical Group	Problem	Comments
DISEASES			
1,3-dichloropropene +chloropicrin	8B	Fusarium wilt	EU: No authorisations
		Pythium root rot	
		Rhizoctonia	
Boscalid	7	Sclerotinia rot	Canada: Under review
Calcium hypochlorite	-	Bacterial soft rot	
Dazomet	-	Damping off	
		Rhizoctonia	
Iodine	M	Bactericide	
Penthiopyrad	7	Alternaria leaf spots	
		Powdery mildew	
Phosphorous acid	33	Phytophthora root rot (PER84708)	
		Pythium root rot (PER84708)	
Pydiflumetofen + difenoconazole	7 + 3	Early blight	<u>Difenoconazole:</u> APVMA: nominated for review EU: Candidate for substitution USA: Under review <u>Pydiflumetofen:</u> EU: Pending
		Cercospora leaf spot	
		Powdery mildew	
Thiabendazole	1	Root rot (PER12047)	
		Scurf (PER12047)	

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Active Constituents	Chemical Group	Comments
WEEDS		
Chlorthal-dimethyl	3	EU: No authorisation in place
Diquat	22	APVMA: Currently under review EU: No authorisation in place
Glyphosate	9	Ongoing issues internationally EU: Under review
Fluazifop-P (PER82556)	1	
Metolachlor /S-metolachlor	15	<u>Metolachlor:</u> EU: No authorisation <u>S-metolachlor:</u> EU: Proposed non-renewal
Sethoxydim	1	EU: No authorisation in place

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