

## Lettuce 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Regulatory pressures on agrichemicals are increasing globally, with many being either restricted or withdrawn from use.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 lettuce as well as current initiatives aimed at addressing identified pest management deficiencies.

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

Active Constituents	Chemical Group	Problem	Comments
Abamectin	6	Two-spotted (Red spider) mite	APVMA: Nominated for spray drift label review Canada: Some uses amended, others cancelled EU: Use restricted to permanent greenhouses
		Western flower thrips	
Afidopyropen	9D	Cabbage aphid	EU: No authorisations
		Cotton aphid	
		Currant lettuce aphid	
		Green peach aphid	
		Silverleaf whiteflies	
Alpha-cypermethrin	3A	Helicoverpa	EU: No authorisation
		Redlegged earth mite(PER13301)	UK: No authorisation
		Vegetable weevil(PER13301)	
<i>B thuringiensis (a/k)</i>	11A	Helicoverpa	EU: Authorisation renewal under review
		Armyworm	
		Diamondback (Cabbage) moth	
		Loopers	
		Soybean looper	
<i>B thuringiensis (i)</i>	11A	Fungus gnats(PER14694)	
Bifenazate	20D	Two-spotted (Red spider) mite(PER14210)	Canada: Under review EU: Use restricted to non-edible crops in permanent greenhouses
Buprofezin	16	Greenhouse whitefly(PER82467)	EU: MRLs set to limit of quantification
		Jassids/Leafhoppers(PER82467)	

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Active Constituents	Chemical Group	Problem	Comments
Carbaryl	1A	Vegetable weevil	Canada: Reviewed, large number of uses deleted Codex: Review scheduled, support uncertain EU: Authorisation not renewed USA: Under review
Chlorantraniliprole	28	Helicoverpa spp.	
Chlorantraniliprole + thiamethoxam	4A + 28	Brown sowthistle aphid	Thiamethoxam: <a href="#">APVMA: Under review</a>
		Cluster caterpillar	Canada: Some field uses cancelled or amended
		Currant lettuce aphid	EU: No authorisations
		Green peach aphid	USA: Re-registration with new risk mitigation measures
		Helicoverpa	
		Loopers	
		Lucerne leafroller	
		Silverleaf whiteflies	
		Vegetable leafhopper	
		Western flower thrips	
		Leaf miners(PER91161)	
Chlorpyrifos	1B	Blue oat mite	<a href="#">APVMA: Under review.</a>
		Redlegged earth mite	Codex: All MRLs revoked
		Vegetable weevil	Canada: Cancellation of all uses. EU: No authorisation in place USA: EPA decision to cancel use on food crops
Cyromazine	17	Leaf miners(PER81867)	EU: No authorisation

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Active Constituents	Chemical Group	Problem	Comments
Diazinon	1B	Cutworms	<a href="#">APVMA: Under review</a> EU: No authorisation in place Codex: Withdrawal of Codex MRLs recommended
Dimpropridaz	36	Cabbage aphid	Codex: Evaluation for MRLs scheduled for 2025
		Green peach aphid	EU: Authorisation pending
ECO-Oil	-	Silverleaf whiteflies(PER14077)	
Emamectin benzoate	6	Cluster caterpillar	EU: Candidate for substitution
		Cucumber moth	
		Helicoverpa	
Fenitrothion	1B	Australian plague locust	EU: No authorisation in place
		Migratory locust	
		Small plague locust	
		Spur-throated locust	
		Wingless grasshopper	
Fipronil	2B	Onion thrips(PER83203)	<a href="#">APVMA: Under review</a> Codex: Re-evaluation underway EU: No authorisation in place USA: Under review
		Western flower thrips(PER83203)	
Flubendiamide	28	Helicoverpa	
Helicoverpa NPV	31	Helicoverpa	
Imidacloprid	4A	Currant lettuce aphid	<a href="#">APVMA: Under review</a> Canada: Field uses cancelled or amended EU: No authorisation USA: Re-registration with new risk mitigation measures
Indoxacarb	22	Helicoverpa	Canada: No authorisations EU: No authorisations. UK: Proposed non-renewal

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Active Constituents	Chemical Group	Problem	Comments
Malathion/Maldison	1B	28-spotted potato ladybird	<a href="#">APVMA: Under review</a> Codex: Re-evaluation scheduled for 2025/26 EU: Restricted use to permanent greenhouses USA: Under review, label use patterns amended
		Aphids	
		Australian plague locust	
		Diamondback (Cabbage) moth	
		Green vegetable bug	
		Redlegged earth mite	
		Rutherglen bug	
		Thrips	
		Small plague locust (PER11843)	
		Spur-throated locust(PER11843)	
Methomyl	1A	Cluster caterpillar	<a href="#">APVMA: nominated for review</a> Canada: Re-evaluation completed. Majority of uses removed EU: No authorisations in place USA: Under review
		Helicoverpa	
Permethrin	3A	Cluster caterpillar	Codex: Re-evaluation scheduled. Support uncertain EU: No authorisation
Petroleum oil	UNM-	Aphids (PER12221)	
		Greenhouse whitefly (PER12221)	
		Mites (PER12221)	
		Silverleaf whiteflies (PER12221)	
		Thrips(PER12221)	
		Green vegetable bug (PER12221/PER14351)	
		Grey cluster bug (PER12221/PER14351)	
		Jassids/Leafhoppers(PER12221/PER14351)	
		Rutherglen bug(PER12221/PER14351)	
		Green mirid(PER12221/PER14351)	

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Pirimicarb	1A	Aphids	Codex: JMPR re-evaluation scheduled EU: Candidate for substitution
Potassium salts	UN	Greenhouse whitefly (PER13920) Silverleaf whiteflies (PER13920)	
Pymetrozine	9B	Brown sowthistle aphid Cotton aphid Currant lettuce aphid Green peach aphid Potato aphid Silverleaf whiteflies	Canada: Restricted use to glasshouses only Codex: No registrant support EU: Not authorised
Pyrethrins	3A	Ants Cabbage aphid Diamondback (Cabbage) moth Earwig Greenhouse whitefly Helicoverpa Jassids/Leafhoppers Plague thrips Rose aphid Rutherglen bug Thrips Two-spotted (Red spider) mite Whitefly	Canada: Under review Codex: Under review
Pyriproxyfen	7C	Silverleaf whiteflies	

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Active Constituents	Chemical Group	Problem	Comments
Spinetoram	5	Helicoverpa	
		Loopers	
		Western flower thrips	
		Leaf miners(PER91155)	
Spinosad	5	Helicoverpa	
		Loopers	
		Western flower thrips	
		Fall armyworm(PER89870)	
		Leaf miners (PER90928)	
Spirotetramat	23	Brown sowthistle aphid	
		Currant lettuce aphid	
		Green peach aphid	
		Silverleaf whiteflies	
		Leaf miners(PER88640)	
Spodoptera (NPV)	31	Fall armyworm(PER90820)	
Sulfoxaflor	4C	Brown sowthistle aphid	USA: Pollinator concerns EU: Restricted to permanent glasshouses only
		Green peach aphid	
		Greenhouse whitefly	
Trichlorfon	1B	Cutworms	<a href="#">APVMA: nominated for review</a> Codex: No MRLs EU: No authorisations USA: No MRLs
		Green vegetable bug	
		Rutherglen bug	

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Active Constituents	Chemical Group	Problem	Comments
Ametoctradin + dimethomorph	45 + 40	Downy mildew	<u>Dimethomorph</u> EU: Under review
Azoxystrobin	11	Anthracnose	Canada: Review proposed
		Sclerotinia rot	
		Base rot/Bottom rot	
Azoxystrobin + oxathiapiprolin	11 + 49	Alternaria leaf spot	
		Downy mildew	
		Sclerotinia rot	
<i>B. amyloliquefaciens</i>	BM02	Bacterial spot(PER87630)	
Boscalid	7	Sclerotinia rot	Canada: Review initiated
Captan		Botrytis/Grey mould(PER14326)	EU: Under review proposed restriction to use in permanent greenhouses only USA: Under review
Chlorothalonil	M5	Anthracnose(PER14964)	<a href="#">APVMA: nominated for review</a> Canada: Cancellation of uses proposed EU: No authorisation in place USA: Under review
Copper	M1	Anthracnose	EU: Candidates for substitution
		Bacterial spot	
		Downy mildew	
		Dry leaf spot	
Cyprodinil +fludioxonil	9 + 12	Anthracnose	<u>Cyprodinil</u> : Canada: Currently under reviewed EU: Candidate for substitution <u>Fludioxonil</u> : EU: Currently under reviewed and Candidate for substitution
		Sclerotinia rot	
		Botrytis/Grey mould	



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Active Constituents	Chemical Group	Problem	Comments
Dimethomorph	40	Anthracnose	EU: Under review
		Downy mildew	
		Septoria leaf spot	
Fenhexamid	17	Botrytis/Grey mould	
Florylpicoxamid	21	Sclerotinia rot	EU: Pending
Fludioxonil + pydiflumetofen	12 + 7	Botrytis/Grey mould	<u>Fludioxonil</u> : EU: Currently under reviewed & Candidate for substitution <u>Pydiflumetofen</u> : EU: Pending authorisation
		Sclerotinia rot	
Fluopicolide + propamocarb HCl	28 + 43	Downy mildew	Fluopicolide EU: Candidate for substitution
Fluopyram + trifloxystrobin	7 + 11	Sclerotinia rot	Trifloxystrobin Canada: Review initiated
Iprodione	2	Botrytis/Grey mould	Canada: Majority of food crop uses deleted Codex: Review scheduled EU: No authorisation USA: Proposed deletion or restriction of uses
		Sclerotinia rot	
Isofetamid	7	Sclerotinia	
Mancozeb	M3	Downy mildew	<a href="#">APVMA: nominated for review</a> Canada: Many uses cancelled Codex: To be reviewed 2024/25 EU: No authorisation
		Septoria leaf spot	
		Anthracnose(PER80538)	
Mandestrobin	11	Sclerotinia rot	
Mandipropamid	40	Downy mildew	
Metalaxyl/metalaxyl-M	4	Downy mildew	<u>Metalaxyl</u> EU: Candidate for substitution <u>Metalaxyl-M</u> EU: Restricted use approval
Metalaxyl-M	4	Damping off(PER14318)	

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Active Constituents	Chemical Group	Problem	Comments
Metiram	M3	Downy mildew	<a href="#">APVMA: nominated for review</a> Canada: All foliar uses, except on potato, cancelled Codex: To be reviewed 2024/25 EU: No authorisation
		Septoria leaf spot	
Oxadixyl +propineb	4 + M3	Downy mildew	<u>Oxadixyl</u> EU: No authorisation in place <u>Propineb</u> APVMA: Nominated for review EU: No authorisation in place Codex: To be reviewed 2024/25
Oxathiapiprolin	49	Downy mildew	
Penthiopyrad	7	Powdery mildew	
		Sclerotinia rot	
Phosphorous acid	33	Downy mildew(PER13698)	
Potassium bicarbonate	M2	Powdery mildew(PER13695)	EU: No authorisation
Prochloraz	3	Anthracoise(PER81131) (field only)	Codex: Periodic re-evaluation scheduled EU: No authorisation
Propineb	M3	Downy mildew	<a href="#">APVMA: nominated for review</a> EU: No authorisation in place Codex: To be reviewed 2024/25
Pyrimethanil	9	Botrytis/Grey mould(PER12565)	Canada: Review initiated
Tebuconazole	3	Sclerotinia rot	<a href="#">APVMA: nominated for review</a> Canada: Under review EU: Candidate for substitution USA: Under review
Thiram	M3	Botrytis/Grey mould	<a href="#">APVMA: nominated for review</a> Canada: Cancelled all foliar uses (2021) Codex: To be reviewed 2024/25 EU: No authorisation in place
		Septoria leaf spot	
		Anthracoise	
Tolclofos-methyl	14	Bottom rot (Rhizoctonia)	EU: Proposed restricted authorisation

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Active Constituents	Chemical Group	Comment
<b>WEEDS</b>		
Chloridazon	5	EU: No authorisation
Chlorthal-dimethyl	3	EU: No authorisation in place
Clethodim	1	Codex: MRLs proposed for deletion
Fluazifop-P as butyl	1	
Haloxifop-P (PER14959)	1	EU: No authorisation
Pendimethalin	3	EU: Candidate for substitution
Phenmedipham (PER81241)	5	EU: Under review
Propyzamide	3	EU: Under review
Sethoxydim	1	EU: No authorisation
<b>Plant growth regulator</b>		
1-Methylcyclopropene		

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