

## Sweet corn 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Regulatory pressures on agrichemicals are increasing globally, with many being either restricted or withdrawn from use.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 sweet corn.

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

Active Constituents	Chemical Group	Problem	Comments
<b>INSECT AND OTHER PESTS</b>			
Abamectin	<b>6</b>	Two-spotted (Red spider) mite	APVMA: Nominated for spray drift label review Canada: Some uses amended, others cancelled EU: Use restricted to permanent greenhouses
Afidopyropen	<b>9D</b>	Corn aphid	EU: No authorisations
		Cotton aphid	
		Green peach aphid	
Alpha-cypermethrin	<b>3A</b>	Helicoverpa species	EU: No authorisations UK: No authorisation
		Looper caterpillars	
		Fall armyworm(PER85447)	
Amorphous silica	<b>UN</b>	Cotton aphid	
		Fall armyworm(PER90841)	
<i>B. thuringiensis</i>	<b>11A</b>	Armyworms	EU: Under review for renewal
		Cabbage white butterfly	
		Caterpillars	
		Diamondback (Cabbage) moth	
		Helicoverpa species	
		Lightbrown apple moth	
		Looper caterpillars	
		Painted vine moth	
		Potato moth (Leafminer)	
		Soybean & Tobacco looper	
Chlorantraniliprole	<b>28</b>	Helicoverpa species	
		Fall armyworm(PER89259)	

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Active Constituents	Chemical Group	Problem	Comments
Chlorpyrifos	1B	African black beetle (PER88018)	APVMA: Under review. Codex: All Codex MRLs revoked Canada: Cancellation of all uses. EU: No authorisation in place USA: EPA decision to cancel use on food crops
Clothianidin	4A	Wireworm Aphids (ST) Cutworms (ST)	APVMA: Under review Canada: Field uses cancelled or amended EU: Not authorised USA: Re-registration with new risk mitigation measures
Cypermethrin	3A	Australian plague locust Common armyworm Helicoverpa species Spur-throated locust	EU: Candidate for substitution
Deltamethrin	3A	Helicoverpa species	
Diazinon	1B	Caterpillars Cutworms	APVMA: Under review EU: No authorisation in place Codex: Withdrawal of Codex MRLs recommended
Dimethoate	1B	Aphids Bugs Green vegetable bug Jassids Plague thrips Spur-throated locust Wingless grasshopper	Codex: No MRL EU: Not authorised
Emamectin benzoate	6	Helicoverpa species Fall armyworm	EU: Candidate for substitution
Esfenvalerate	3A	Helicoverpa species	EU: Candidate for substitution
Ethyl formate	8A	Corn aphid(Po) Green peach aphid(Po) Thrips(Po) Two-spotted (Red spider) mite(Po)	EU: No authorisation in place

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Active Constituents	Chemical Group	Problem	Comments
Etoazole	10B	Two-spotted (Red spider) mite(PER88170)	EU: Only uses on greenhouse ornamentals approved & Candidate for substitution
Helicoverpa NPV	31	Helicoverpa species	
Imidacloprid (ST)	4A	Aphids	<a href="#">APVMA: Under review</a> Canada: Field uses cancelled or amended EU: No authorisation USA: Re-registration with new risk mitigation measures
		Black field crickets	
		Black field earwig	
		Cutworms	
		Eastern false wireworm	
		Southern false wireworm, Sugarcane false wireworm, Striate false wireworm	
		Wingless cockroaches	
		Wireworm	
Indoxacarb	22A	Fall armyworm(PER90374)	Canada: No authorisations EU: No authorisations UK: Proposed non-renewal
Methomyl	1A	Armyworms	<a href="#">APVMA: nominated for review</a> Canada: Re-evaluation completed. Majority of uses removed EU: No authorisations in place USA: Under review
		Helicoverpa species	
Methoxyfenozide	18	Caterpillars (PER84531)	EU: Proposed restricted authorisation & Candidate for substitution
		Helicoverpa species (PER84531)	
Paraffinic oil/Petroleum oil	UNM	Aphids	
		Bugs	
		Leafhoppers	
		Mites	
		Thrips	
		Whiteflies	
Permethrin	3A	Helicoverpa species	Codex: Re-evaluation scheduled. Support uncertain EU: No authorisation

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Pirimicarb	1A	Aphids Corn aphid	Codex: JMPR re-evaluation scheduled EU: Candidate for substitution
Propargite	12C	Two-spotted (Red spider) mite(PER88179)	<a href="#">APVMA: nominated for review</a> EU: No authorisations
Pymetrozine	9B	Corn aphid	Canada: Restricted use to glasshouses only Codex: No registrant support EU: Not authorised
Spinetoram	5	Helicoverpa species Painted vine moth Western flower thrips Fall armyworm (PER89241) Leafminers (PER91155)	
Spinosad	5	Fall armyworm(PER89870)	
Spirotetramat	23	Corn aphid	
<i>Spodoptera frugiperda</i> NPV	31	Fall armyworm(PER90820)	
<i>Spodoptera frugiperda</i> MNPV	31	Fall armyworm(PER91477)	
Sulfoxaflor	4C	Green peach aphid	USA: Pollinator concerns EU: Restricted to permanent glasshouses only
Terbufos	1B	Wireworm	Codex: Unsupported, possible deletion EU: No authorisation in place
Thiamethoxam (ST)	4A	Eastern false wireworm Southern false wireworm, Sugarcane false wireworm, Striate false wireworm	<a href="#">APVMA: Under review</a> Canada: Some field uses cancelled or amended EU: Not authorised USA: Re-registration with new risk mitigation measure
Thiodicarb	1A	Helicoverpa species	EU: No authorisations
Zeta-cypermethrin	3A	Common armyworm Helicoverpa species	EU: No authorisations

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Active Constituents	Chemical Group	Problem	Comments
<b>DISEASES</b>			
Azoxystrobin + cyproconazole	<b>11 + 3</b>	Rust (Common & Polysora)	<u>Azoxystrobin</u>
		Turcicum leaf blight /Northern corn leaf blight	Canada: Review proposed <u>Cyproconazole</u> <a href="#">APVMA: nominated for review</a> EU: No authorisation in place
Azoxystrobin + tebuconazole	<b>11 + 3</b>	Maize Rust(86245)	<u>Azoxystrobin</u> Canada: Review proposed (2023) <u>Tebuconazole</u> <a href="#">APVMA: nominated for review</a> Canada: Under review EU: Candidate for substitution USA: Under review
Carboxin (ST)	<b>7</b>	Boil smut & Head smut	EU: No authorisation in place
		Seed decay & Seedling blight/rot	
Chlorothalonil	<b>M5</b>	Turcicum leaf blight /Northern corn leaf blight	<a href="#">APVMA: nominated for review</a> Canada: Cancellation of uses proposed EU: No authorisation in place <sup>i</sup> USA: Under review
Fludioxonil + Metalaxyl-M	<b>12 + 4</b>	Fusarium Root rot	<u>Fludioxonil</u>
		Pythium root rot (Damping-off)	EU: Under review, & candidate for substitution
Metalaxyl/Metalaxyl-M (ST)	<b>4</b>	Downy mildew	<u>Metalaxyl</u> EU: Candidate for substitution <u>Metalaxyl-M</u> EU: Restricted use approval
Propiconazole	<b>3</b>	Turcicum leaf blight /Northern corn leaf blight(PER13116)	<a href="#">APVMA: nominated for review</a> EU: No authorisation in place USA: Under review
Thiram (ST)	<b>M3</b>	Boil smut & Head smut	<a href="#">APVMA: nominated for review</a> Canada: Cancelled all foliar uses Codex: To be reviewed EU: No authorisation in place

## Sweet corn Agrichemical Regulatory Risk Assessment

Active Constituents	Chemical Group	Comments
<b>WEEDS</b>		
2,4-D	<b>4</b>	
Atrazine	<b>5</b>	Canada: Review proposed EU: No authorisations in place USA: Under review
Carfentrazone-ethyl	<b>14</b>	
Cyanazine	<b>5</b>	<a href="#">APVMA: nominated for review</a> EU: No authorisation in place
Dimethenamid-P	<b>15</b>	
EPTC	<b>15</b>	EU: No authorisations in place
Fluroxypyr	<b>4</b>	
Glufosinate	<b>10</b>	APVMA: Nominated for spray drift label review Canada: Review proposed EU: No authorisation in place
Glyphosate	<b>9</b>	APVMA: Nominated for spray drift label review Ongoing issues internationally EU: Under review
Linuron	<b>5</b>	Canada: Cancellation of many uses EU: No authorisations
MCPA	<b>4</b>	
Metolachlor/S-metolachlor	<b>15</b>	<u>Metolachlor</u> : EU: No authorisation <u>S-metolachlor</u> : EU: Proposed non-renewal
Propachlor	<b>15</b>	EU: No authorisations in place
Terbuthylazine	<b>5</b>	

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