

Stone fruit (except Cherry) 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Regulatory pressures on agrichemicals are increasing globally, with many being either restricted or withdrawn from use.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 would 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 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 stone fruit 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			
Acequinocyl	20B	Two-spotted (Red spider) mite	
Acetamiprid + novaluron	4A + 15	Black peach aphid	Acetamiprid APVMA: Under review Novaluron EU: No authorisation in place
		Fruit flies	
		Green peach aphid	
		Lightbrown apple moth	
		Oriental fruit moth	
		San Jose scale	
Alpha-cypermethrin	3A	Apple weevil	EU: Not renewed, grace period expired December 2022
		Garden weevil	
		Fruit flies (PER91059)	
Bifenazate	20D	Bryobia mite	Canada: Under review
		European red mite	EU: Use restricted to non-edible crops in permanent greenhouses.
		Two-spotted (Red spider) mite	
Bifenthrin	3A	Dried fruit beetles	Canada: Not authorised EU: Not authorised

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Active Constituents	Chemical Group	Problem	Comment
Carbaryl	1A	European earwig	Canada: Reviewed, large number of uses deleted Codex: Review scheduled, support uncertain EU: Authorisation not renewed USA: Under review
		Fruit-tree borer	
		Green treehopper	
		Helicoverpa species	
		Lightbrown apple moth	
		Orange fruit borer	
		Oriental fruit moth	
		Redshouldered leaf beetle	
		Wingless grasshopper	
Chlorantraniliprole	28	Black cutworm	
		Lightbrown apple moth	
		Oriental fruit moth	
Chlorfenapyr	13	Two-spotted (Red spider) mite	EU: No authorisation
Chlorpyrifos	1B	European earwig	APVMA: Under review. Codex: All MRLs revoked Canada: Cancellation of all uses. EU: No authorisation in place USA: EPA decision to cancel use on food crops
		Lightbrown apple moth	
		San Jose scale	
		Queensland fruit fly(Bait spray)	
		Locusts (PER11843)	
Clofentezine	10A	Bryobia mite	EU: Proposed restriction of use non-edible crops in permanent greenhouses
		European red mite	
		Two-spotted (Red spider) mite	
Clothianidin	4A	Fruit flies	APVMA: Under review Canada: Field uses cancelled or amended EU: Not authorised USA: Re-registration with new risk mitigation measures
		Green peach aphid(Nectarine & peach)	
		Oriental fruit moth(Nectarine & peach)	
		Oriental fruit moth(PER13527 Apricots)	
Cydia pomonella granulosus virus	31	Oriental fruit moth	

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Active Constituents	Chemical Group	Problem	Comment
Diazinon	1B	Cherry aphid	APVMA: Under review EU: No authorisation in place Codex: Withdrawal of Codex MRLs recommended
		Green peach aphid	
		San Jose scale	
Dimethoate	1B	Fruit flies(PER13859) (Post-harvest orchard clean-up treatment)	Codex: No MRL. EU: Not authorised
Etofenprox	3A	Fruit flies	EU: Candidate for substitution
Etoxazole	10B	Bryobia mite	EU: Uses on greenhouse ornamentals only & Candidate for substitution
		European red mite	
		Two-spotted (Red spider) mite	
Fenbutatin oxide	12B	Bryobia mite(Nectarine & peaches)	APVMA: nominated for review Codex: To be reviewed by JMPR. No supporting registrant EU: No authorisation in place USA: Under review
		European red mite(Nectarine & peaches)	
		Two-spotted (Red spider) mite (Nectarine & peaches)	
Fipronil	2B	Queensland fruit fly Trap toxicant	APVMA: Under review Codex: Re-evaluation completed, many MRLs withdrawn EU: No authorisation in place USA: Under review
Hexythiazox	10A	European red mite	
		Two-spotted (Red spider) mite	
Imidacloprid	4A	Black peach aphid	APVMA: Under review Canada: Field uses cancelled or amended EU: No authorisation USA: Re-registration with new risk mitigation measures
		Green peach aphid	
Indoxacarb	22A	Apple weevil	Canada: No authorisation EU: No authorisation UK: Proposed non-renewal
		Fuller's rose weevil	
		Garden weevil	
		Helicoverpa species	
		Lightbrown apple moth	
		Oriental fruit moth	
		Wingless grasshopper	

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Active Constituents	Chemical Group	Problem	Comment
Lambda-cyhalothrin	3A	Fruit flies(PER12961 – SA Biosecurity) (Soil drench)	EU: Candidate for substitution
Malathion/maldison	1B	Black peach aphid Cherry aphid European red mite Fruit flies Green peach aphid Locusts (PER11843) Oriental fruit moth Rutherglen bug Wingless grasshopper	APVMA: Under review Codex: Re-evaluation scheduled for 2023/24 EU: Restricted use to permanent greenhouses
Methomyl	1A	Green peach aphid Helicoverpa species Redshouldered leaf beetle Thrips	APVMA: nominated for review Canada: Re-evaluation completed. Majority of uses removed EU: No authorisations in place USA: Under review
Milbemectin	6	Two-spotted (Red spider) mite	
Paraffinic oil/petroleum oil	UNM	European red mite Bryobia mite Frosted scale Mites Oystershell scale Pear scale San Jose scale Scale insects Spider mites (Red spider) Two-spotted (Red spider) mite	
Pirimicarb	1A	Black peach aphid Cherry aphid Green peach aphid	Codex: JMPR re-evaluation scheduled EU: Candidate for substitution

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Active Constituents	Chemical Group	Problem	Comment
Propargite	12C	European red mite	APVMA: nominated for review EU: No authorisations
		Mites	
		Two-spotted (Red spider) mite	
Pymetrozine	9B	Black peach aphid	Canada: Restricted use to glasshouses only Codex: No registrant support EU: Not authorised
		Green peach aphid	
Pyrethrins	3A	Cabbage white butterfly	Canada: Under review
		Caterpillars	
		Fruit flies	
		Grapevine moth	
		Green peach aphid	
		Helicoverpa species	
		Lightbrown apple moth	
		Plague thrips	
Rutherglen bug			
Pyridaben	21A	European red mite	
		Two-spotted (Red spider) mite	
Spinetoram	5	Caterpillars	
		Lightbrown apple moth	
		Oriental fruit moth	
		Pear and cherry slug	
		Western flower thrips	
Spinosad	5	Lightbrown apple moth	
		Oriental fruit moth	
		Pear and cherry slug	
		Western flower thrips	

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Active Constituents	Chemical Group	Problem	Comment
Spirotetramat	23	Black peach aphid	
		Cherry aphid	
		Longtailed mealybug	
		San Jose scale	
		Tuber mealybug	
		Western flower thrips(PER84804)	
Sulfoxaflor	4C	Apple dimpling bug(Yellow mirid)	USA: Pollinator concerns EU: Use restricted to permanent glasshouses only
		Black peach aphid	
		Cherry aphid	
		Green peach aphid	
Sulfur	UN	Bryobia mite	
		Frosted scale	
		San Jose scale	
Tau-fluvalinate	3A	Plague thrips (Nectarine, peach & plum)	
Tebufenpyrad	21A	European red mite	EU: Candidate for substitution
		Two-spotted (Red spider) mite	
Tetraniliprole	28	Apple weevil	EU: Not authorised
		Dried fruit beetles	
		Fuller's rose weevil	
		Garden weevil	
		Mediterranean fruit fly	
		Oriental fruit moth	
Thiacloprid	4A	Green peach aphid	APVMA: Under review EU: No authorisation in place USA: No authorisation
		Oriental fruit moth	
		Mediterranean fruit fly(PER14562)	
Trichlorfon	1B	Queensland fruit fly	APVMA: nominated for review Codex: No MRLs EU: No authorisations USA: No MRLs
		Rutherglen bug	
		Fruit flies(PER14683)	

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Active Constituents	Chemical Group	Problem	Comment
DISEASES			
<i>Agrobacterium radiobacter</i>	NC	Crown gall	
BLAD	BM01	Blossom blight	
		Brown rot	
Captan	M4	Brown rot	EU: Under review proposed restriction to use in permanent greenhouses only
		Blossom blight	USA: Under review
Chlorothalonil	M5	Blossom blight	APVMA: nominated for review
		Brown rot	Canada: Proposed cancellation of uses
		Leaf curl	EU: No authorisation in place
		Rust	USA: Under review
		Shot hole	
Copper	M1	Bacterial canker/blast	EU: Candidates for substitution
		Bacterial spot	
		Blossom blight	
		Brown rot	
		Freckle or scab	
		Leaf curl	
		Phytophthora stem rot	
		Rust	
		Shot hole	
		Trunk and stem canker	
Cyproconazole +iodocarb	3 + 28	Silver leaf	<u>Cyproconazole</u> APVMA: nominated for review EU: No authorisation in place <u>Iodocarb</u> EU: No authorisation in place
Cyprodinil	9	Blossom blight	Canada: Under review
		Brown rot	EU: Candidate for substitution

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Active Constituents	Chemical Group	Problem	Comment
Dithianon	M9	Brown rot	EU: Use restricted to non-edible crops
		Freckle or scab (Apricot, nectarine & peach)	
		Leaf curl (Nectarines and & peaches)	
		Peach blight	
		Rust (Nectarine, peaches & plums)	
		Shot hole	
Dodine	U12	Leaf curl	
		Blossom blight (Nectarine & peach)	
Fludioxonil (Po)	12	Brown rot	EU: Under review & candidate for substitution
		Grey mould	
		Transit rot (Rhizopus soft rot)	
Fluopyram +trifloxystrobin	7 + 11	Blossom blight	Trifloxystrobin Canada: Under review
		Shot hole	
Fosetyl-Al	33	Collar rot(PER85273)	
		Phytophthora trunk rot(PER85273)	
Iodine	M	Bactericide	
		Fungi	
Iprodione	2	Blossom blight	Canada: Majority of food crop uses deleted Codex: Review scheduled EU: No authorisation in place USA: Proposed deletion or restriction of uses
		Brown rot	
		Stem end rot(Po)	
		Transit rot (Rhizopus soft rot) (Po)	
Mancozeb	M3	Bacterial canker/blast	APVMA: nominated for review Canada: Many uses cancelled Codex: To be reviewed 2024/25 EU: Authorisation not renewed
		Brown rot	
		Freckle or scab	
		Rust	
		Shot hole	
		Blossom blight	

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Active Constituents	Chemical Group	Problem	Comment
Mandestrobin	11	Blossom blight	
		Brown rot	
Metalaxyl/metalaxyl-M	4	Leather rot (Peaches)	Metalaxyl EU: Candidate for substitution Metalaxyl-M EU: Restricted use approval
		Phytophthora trunk rot (Peaches)	
		Trunk and stem canker (Peaches)	
Metiram	M3	Rust	APVMA: nominated for review Canada: All foliar uses, except potato, cancelled Codex: To be reviewed 2024/25 EU: Under review
		Shot hole	
Penthiopyrad	7	Blossom blight	
		Brown rot	
		Freckle or scab	
Potassium salts	M2	Brown rot (Nectarines)	
Procymidone	2	Blossom blight	APVMA: Review in progress Codex: No MRLs EU: No authorisations
Propiconazole	3	Brown rot	APVMA: nominated for review EU: No authorisations USA: Under review
Sulfur	M2	Blossom blight	
		Brown rot	
		Freckle or scab	
		Leaf curl	
		Rust	
		Shot hole	
Thiram	M3	Brown rot	APVMA: nominated for review Canada: All foliar uses cancelled (2021) Codex: To be reviewed 2024/25 EU: No authorisation in place
		Freckle or scab	
		Shot hole	

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Active Constituents	Chemical Group	Problem	Comment
Triforine	3	Brown rot	APVMA: nominated for review EU: No authorisation
Zineb	M3	Rust	APVMA: nominated for review Codex: To be reviewed 2024/25 EU: No authorisation in place
Ziram	M3	Blossom blight	APVMA: nominated for review Canada: Cancelling of all uses Codex: To be reviewed 2024/25 EU: Candidate for substitution
		Brown rot	
		Freckle or scab	
		Leaf curl	
		Shot hole	

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Active Constituents	Chemical Group	Comment
WEEDS		
Amitrole	34	APVMA: nominated for review EU: No authorisation in place
Carfentrazone-ethyl	14	
Dichlobenil	29	EU: No authorisation in place
Diquat	22	APVMA: Currently under review EU: No authorisation in place
Fluazifop-P	1	
Flumioxazin	14	
Glufosinate-ammonium	10	Canada: Review proposed EU: No authorisation in place
Glyphosate	9	Ongoing issues internationally EU: Under review
Haloxyfop-P	1	EU: No authorisation in place
Nonanoic acid	0	
Napropamide	0	
Norflurazon	12	EU: No authorisation in place
Oryzalin	3	EU: No authorisation in place
Oxyfluorfen	14	EU: Candidate for substitution USA: Interim review decision Label amendments proposed
Paraquat	22	APVMA: Currently under review Canada: Review initiated EU: No authorisation in place Rotterdam Convention - nomination
Pendimethalin	3	EU: Candidate for substitution
Terbacil (Peach)	5	EU: No authorisation in place
Trifluralin	3	EU: No authorisation in place

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Active Constituents	Chemical Group	Comment
PLANT GROWTH REGULATORS		
1-methylcyclopropene		
Aminoethoxyvinylglycine (AVG)		EU: No authorisation
Ammonium thiosulfate (Peaches & plums)		EU: No authorisation
Cyanamide (Plums)		EU: No authorisation
Ethephon (Peaches)		
Gibberellic acid		
Paclobutrazol		EU: Candidate for substitution

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