

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Regulatory pressures on agrichemicals are increasing globally, with many being either restricted or withdrawn from use.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

Onion Agrichemical Regulatory Risk Assessment

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	Cyst forming nematodes	EU: No authorisation
		Symphylids	
		Wireworm	
Abamectin	6	Vegetable leafminer (PER81876)	APVMA: Nominated for spray drift label review Canada: Some uses amended, others cancelled EU: Use restricted to permanent greenhouses
		Root knot nematode(PER89720)	
		Root lesion nematode(PER89720)	
		Stubby root nematode(PER89720)	
Alpha-cypermethrin	3A	Onion (Cotton seedling) thrips (PER80282)	EU: No authorisation UK: No authorisation
Chlorpyrifos	1B	Australian plague locust	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
		Black field cricket	
		Cutworms	
		Earwig	
		False wireworm	
		Field crickets	
		Migratory locust	
		Mole crickets	
		Seed harvesting ants	
		Spotted vegetable weevil	
		Spur-throated locust	
		Vegetable weevil	
		Wingless grasshopper	
		Cyantraniliprole	
Vegetable leafminer(PER90387)			

Onion Agrichemical Regulatory Risk Assessment

Active Constituents	Chemical Group	Problem	Comments
Dazomet		Non cyst forming	
Diazinon	1B	Onion seedling maggot	APVMA: Under review
		Wireworm	EU: No authorisation in place
		Onion (Cotton seedling) thrips (PER13119)	Codex: Withdrawal of Codex MRLs recommended
Dimethoate	1B	Aphids	Codex: No MRL.
		Bugs	EU: Not authorised
		Green vegetable bug	
		Jassids	
		Leafhoppers	
		Leafminer flies	
		Mites	
		Redlegged earth mite	
		Thrips	
Wingless grasshopper			
Ethyl formate	8A	Onion (Cotton seedling) thrips	EU: No authorisation
Flonicamid	29	Onion (Cotton seedling) thrips(PER89185)	
		Western flower thrips(PER89185)	
Lambda-cyhalothrin	3A	Onion (Cotton seedling) thrips	EU: Candidate for substitution
Malathion/Maldison	1B	Australian plague locust	APVMA: Under review
		Migratory locust	Codex: Re-evaluation scheduled for 2025/26
		Onion (Cotton seedling) thrips	EU: Restricted use to permanent greenhouses
		Spur-throated locust	USA: Under review, label use patterns amended

Onion Agrichemical Regulatory Risk Assessment

Active Constituents	Chemical Group	Problem	Comments
Omethoate	1B	Thrips	Codex: MRLs at or near LOQ Canada: No approvals in place EU: No authorisations in place USA: No approvals in place
		Lucerne flea	
Petroleum oil	UNM	Aphids (PER12221)	
		Green mirids (PER12221)	
		Grey cluster bug (PER12221)	
		Leafhoppers (PER12221)	
		Mites (PER12221)	
		Rutherglen bug (PER12221)	
		Thrips (PER12221)	
Phorate	1B	Onion seedling maggot	APVMA: nominated for review
		Thrips	EU: No authorisation in place
Spinetoram	5	Onion thrips	
		Western flower thrips	
Spirotetramat	23	Onion (Cotton seedling) thrips	
		Plague thrips	
		Tomato thrips	
		Western flower thrips	

Onion Agrichemical Regulatory Risk Assessment

Active Constituents	Chemical Group	Problem	Comments
DISEASES			
1,3-dichloropropene +chloropicrin		Rhizoctonia	EU: No authorisations
Ametoctradin + dimethomorph	45 + 40	Downy mildew	<u>Dimethomorph</u> : EU: Pending, under review
Azoxystrobin + oxathiapiprolin	11 + 49	Downy mildew	<u>Azoxystrobin</u>
		White rot	Canada: Review proposed
Benalaxyl	4	Downy mildew	EU: No authorisation
		Purple blotch	
Boscalid	7	Neck and bulb rot(PER14602)	Canada: Review initiated
Chlorothalonil	M5	Downy mildew	APVMA: nominated for review
		Neck and bulb rot (PER14602)	Canada: Cancellation of uses proposed EU: No authorisation in place USA: Under review
Copper	M1	Downy mildew	EU: Candidates for substitution
		Purple blotch	
Cyprodinil +fludioxonil	9 + 12	Black mould	Cyprodinil Canada: Under review EU: Candidate for substitution Fludioxonil EU: Under review & Candidate for substitution
		Grey mould	
		Neck and bulb rot	
Dazomet		Club root	
		Rhizoctonia	
Dimethomorph	40	Downy mildew	EU: Pending, under review
		Purple blotch	

Onion Agrichemical Regulatory Risk Assessment

Active Constituents	Chemical Group	Problem	Comments
Dimethomorph +mancozeb	40 + M3	Botrytis rot (various)	<p><u>Dimethomorph</u>: EU: Pending, under review</p> <p><u>Mancozeb</u> APVMA: nominated for review Canada: Many uses cancelled Codex: To be reviewed 2024/25 EU: Authorisation not renewed</p>
Fluopicolide +propamocarb HCl	28 + 43	Downy mildew	<p><u>Fluopicolide</u> EU: Candidate for substitution</p>
Hydrogen peroxide +peroxyacetic acid	M	Downy mildew	
		Neck and bulb rot	
Iodine	M	Bactericide	
		Fungi (Post-harvest)	
Iprodione	2	Neck and bulb rot	<p>Canada: Majority of food crop uses deleted Codex: Under review EU: No authorisation in place USA: Proposed deletion or restriction of uses</p>
Mancozeb	M3	Downy mildew	<p>APVMA: nominated for review Canada: Many uses cancelled Codex: To be reviewed 2024/25 EU: Authorisation not renewed</p>
		Purple blotch	
Metalaxyl/metalaxyl-M	4	Downy mildew	<p><u>Metalaxyl</u> EU: Candidate for substitution</p> <p><u>Metalaxyl-M</u> EU: Restricted use approval</p>
		Purple blotch	
Metiram	M3	Downy mildew	<p>APVMA: nominated for review Canada: Only foliar use on potato Codex: To be reviewed 2024/25 EU: No authorisation</p>
		Purple blotch	

Onion Agrichemical Regulatory Risk Assessment

Active Constituents	Chemical Group	Problem	Comments
Oxadixyl	4	Downy mildew	EU: No authorisation
Oxathiapiprolin	49	Downy mildew	
Penthiopyrad	7	Botrytis blight	
		Purple blotch	
Phosphorous acid	33	Downy mildew (PER13698)	
Procymidone	2	White rot	APVMA: Under review Codex: No MRLs EU: No authorisations
Propineb	M3	Downy mildew	APVMA: nominated for review EU: No authorisation in place Codex: To be reviewed 2024/25
Tebuconazole	3	White rot	APVMA: nominated for review Canada: Under review EU: Candidate for substitution USA: Under review
Triadimenol	3	White rot	APVMA: nominated for review <u>Canada</u> : No authorisation in place EU: No authorisation in place USA: Registration cancelled
Zineb	M3	Blue mould	APVMA: nominated for review Canada: Proposed cancelling of all uses Codex: To be reviewed 2024/25
		Downy mildew	
		Purple blotch	

Onion Agrichemical Regulatory Risk Assessment

Active Constituents	Chemical Group	Comment
WEEDS		
Asulam	18	EU: Under review
Bentazone (PER14773)	6	
Bromoxynil	6	EU: Non-renewal of approval
Chlorthal-dimethyl	3	EU: No authorisation in place
Clethodim	1	Codex: MRLs proposed for deletion
Cyanazine	5	APVMA: nominated for review EU: No authorisation in place
Dimethenamid-P (PER89991)	15	
Diquat	22	APVMA: Currently under review EU: No authorisation in place
Ethofumesate (PER84808)	15	
Fluazifop-P	1	
Fluroxypyr (PER87200)	4	
Glyphosate	9	Ongoing issues internationally EU: Under review
Haloxyfop-P (PER84734)	1	EU: No authorisation
Ioxynil	6	EU: No authorisation in place
Linuron	5	Canada: Cancellation of many uses EU: No authorisation in place
Methabenzthiazuron	5	EU: No authorisation in place
Oxyfluorfen	14	EU: Candidate for substitution USA: Interim review decision Label amendments proposed
Pendimethalin	3	EU: Candidate for substitution
Propachlor	15	EU: No authorisation in place
Quizalofop-P	1	Canada: Under re-evaluation EU: Candidate for substitution
Sethoxydim	1	EU: No authorisation in place
PGR		
Maleic hydrazine	-	

Onion Agrichemical Regulatory Risk Assessment

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