

## **Beetroot Agrichemical Regulatory Risk Assessment**

**November 2025**

Regulatory pressures on agrichemicals are increasing globally, with many being either restricted or withdrawn from use.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 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 to ensure compliance, as 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. Consequently, 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 **Beetroot** in Australia, as well as assisting with any current initiatives aimed at identifying and addressing pest management deficiencies.

|    |   |
|----|---|
| R0 | Use no longer approved  |
| R1 | Short-term: Critical concern over retaining access < 1 year                     |
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### INSECTICIDES/MITICIDES/NEMATOCIDES - Insect and other pests

Blue text = new APVMA approved uses

| Active Constituent | MoA Group | Pest   | Risks and Comments  |
|--------------------|-----------|--|---|
| ABAMECTIN          | 6         | Vegetable leafminer  | Australia: <a href="#">APVMA nominated for reconsideration and spray drift assessment.</a><br>Canada: Re-evaluation finalised. Label amendments to mitigate risks to human health and environment (July, 2025)  |
| CARBARYL           | 1A        | Armyworm; Budworm/Helicoverpa;<br>Cabbage white butterfly; Cutworms;<br>Diamondback moth; Earwigs; Green vegetable bug; Leaf eating Ladybirds;<br>Potato moth; Pumpkin beetle; Rutherglen bugs; Vegetable weevil; Wingless grasshopper | Australia: No current concerns.<br>Codex MRL: 0.1 mg/Kg<br>EU: Not approved<br>Canada: In re-evaluation<br>USA: Under Registration Review (scheduled)   |
| CHLORPYRIFOS       | 1B        | --   | Australia: <a href="#">The chemical review was completed in September 2024.</a> Most uses in horticultural crops were removed. After 30 September 2025, products with previously approved labels must not be supplied. The only remaining approved use is in Brassica crops as specified on current labels.<br>EU: Not approved<br>Canada: Cancelled<br>USA: Agricultural uses cancelled. Very few registrations as Restricted Use Pesticide. |
| CYROMAZINE         | 17        | Leaf Miner   | Australia: No current concerns.<br>Permit PER81867 Expiry date: 30/09/2026<br>EU: Not approved  |
| DIAZINON           | 1B        |  | Australia: Australia: <a href="#">APVMA made a Final Decision on 2024.</a> After 10 September 2025, crop uses are no longer approved. Codex: All MRLs deleted<br>EU: Not approved<br>Canada: Cancelled<br>USA: Under Registration Review (scheduled)  |

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| DIMETHOATE         | 1B        | Leafminer flies; Aphids; Green vegetable bug; Jassids/Leafhoppers; Mites; Red-legged earth mite; Thrips; Wingless grasshopper  | Australia:APVMA reconsideration. <a href="#">Prioritised to be commenced by 2029.</a><br>EU: Not approved<br>Canada: In re-evaluation<br>USA: Under Registration Review (scheduled)  |
| EMAMECTIN          | 6         | Diamondback Moth (Cabbage Moth)( <i>Plutella xylostella</i> ),<br>Cabbage White Butterfly ( <i>Pieris rapae</i> )<br>Heliothis ( <i>Helicoverpa</i> spp.)<br>Cluster caterpillar ( <i>Spodoptera litura</i> )<br>Loopers ( <i>Chrysodeixis</i> spp.) Cabbage Centre Grub ( <i>Hellula Hydralis</i> ) | Australia: <a href="#">APVMA Nominated for targeted spray drift reconsideration</a><br>EU: Approved, candidate for substitution.<br>UK: Withdrawn (2024).  |
| FLUAZAINDOLIZINE   | N-UN      | Root Knot Nematode   | Australia: No current concerns.<br>EU: Pending   |
| FLUBENDIAMIDE      | 28        | Budworm/Helicoverpa; Cabbage white butterfly; Cluster caterpillar; Diamondback moth; Potato moth   | Australia: No current concerns.<br>EU: Not approved<br>UK: Withdrawn (2024).   |
| IMIDACLOPRID       | 4A        | Aphids & Thrips  | Australia: APVMA: <a href="#">Currently under review.</a> Proposed regulatory decisions expected between December2025 to October2026.<br>Permit PER81260 Expiry date: 30/06/2027<br>EU: Not approved<br>Canada: Very few uses allowed in greenhouses and seed treatment.<br>USA: Under Registration Review (scheduled) |
| LAMBDA-CYHALOTHRIN | 3A        | Onion thrips;<br>Plague thrips;<br>Rutherglen bug;<br>Vegetable Loopers;<br>Vegetable weevil.  | Australia: No current concerns.<br>Permit PER11949 Expiry date: 30/11/2029<br>EU: Approved, candidate for substitution.  |

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|--------------------|-----------|---|---|
| PIRIMICARB         | 1A        | Green peach aphid   | Australia: No current concerns.<br>EU: Approved, candidate for substitution.<br>Canada: Cancelled   |
| PROPARGITE         | 12C       | Spotted Mite, Two Spotted Mite  | Australia: <a href="#">APVMA reconsideration. Prioritised to be commenced by 2029.</a><br>EU: Not approved<br>Canada: Cancelled<br>USA: Under Registration Review (scheduled) |
| PYMETROZINE        | 9B        | Green peach aphid; Potato aphid   | Australia: <a href="#">APVMA nominated for reconsideration and spray drift assessment.</a><br>EU: Not approved<br>Canada: Cancelled   |
| PYRETHRINS         | 3A        | Ant, Aphid, Budworms, Caterpillar, Leafhopper, Thrip,   | Australia: No current concerns.   |
| SPINETORAM         | 5         | Budworm/Helicoverpa; Lightbrown apple moth; Loopers; Potato moth. Leaf miners (Liriomyza spp.)<br><br>PER94451-Expiry 31/07/2027 for Vegetable leaf miner; Pea leaf miner/Serpentine leaf miner; American serpentine leaf miner.            | Australia: No current concerns.<br>Permit PER94451 Expiry date: 31/07/2027<br>EU: Not approved<br>UK: Withdrawn (2024).<br>Canada: In re-evaluation                           |
| SPINOSAD           | 5         | Budworm/Helicoverpa; Cabbage centre grub; Cabbage white butterfly; Cluster caterpillar; Cucumber moth; Lightbrown apple moth; Loopers; Potato moth; Western flower thrips. PER94331-Expiry date 30/04/2026 for Leaf miners (Liriomyza spp.) | Australia: No current concerns.<br>Permit PER94331 Expiry date: 30/04/2026<br>Canada: In re-evaluation  |

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|------------------------------|-----------|---|--|
| SPODOPTERA<br>FRUGIPERDA NPV | --        | PER90820 for the control of Fall Armyworm | Australia: No Current Concerns.<br>Permit PER90820 Expiry date: 31/03/2027 |
| SULFOXAFLOX                  | 4C        | Green peach aphid; Tomato/potato psyllid  | Australia: No current concerns.  |

### FUNGICIDES – Disease Control

| Active Constituent | MoA Group | Pest   | Risks and Comments   |
|--------------------|-----------|--|--|
| AMETOCTRADIN       | 45        | Downy mildew   | Australia: No current concerns.  |
| AZOXYSTROBIN       | 11        | Permit PER90595 for control of Damping off / Pythium; Rhizoctonia.                                     | Australia: No current concerns.<br>Permit PER90595 Expiry date: 31/01/2029<br>Canada: In re-evaluation   |
| BOSCALID           | 7         | Sclerotinia rot  | Australia: No current concerns.<br>Canada: In re-evaluation  |
| CHLOROTHALONIL     | M5        | Alternaria spp. Botrytis spp. Cercospora Leaf Spot (Cercospora beticola) Phoma Leaf Spot (Phoma betae) | Australia: APVMA reconsideration. <a href="#">Prioritised to be commenced by 2028.</a><br>EU: Not approved<br>Canada: In re-evaluation<br>USA: Under Registration Review (scheduled) |
| COPPER             | M1        | Downy mildew; Rust   | Australia: No current concerns.  |
| DIFENOCONAZOLE     | 3         | Alternaria leaf spot; Leaf spot  | Australia: <a href="#">APVMA nominated for reconsideration after 2029.</a><br>EU: Approved, candidate for substitution.<br>Canada: In re-evaluation                                  |
| DIMETHOMORPH       | 40        | Downy mildew.  | Australia: No current concerns.<br>EU: Not approved<br>Canada: In re-evaluation  |

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|----------------------------|-----------|---|---|
| FLUDIOXONIL                | 12        | Rhizoctonia.  | Australia: No current concerns.<br>EU: Approved, candidate for substitution.  |
| IPRODIONE                  | 2         | Alternaria leaf spot;<br>Sclerotinia Rot; Grey mould  | Australia: No current concerns.<br>Permit PER81589 Expiry date: 30/06/2026<br>EU: Not approved<br>USA: Under Registration Review (scheduled)  |
| MANCOZEB                   | M3        | Alternaria leaf spot; Cercospora leaf spot;<br>Downy mildew; Leaf spot; Powdery mildew; Rust. Permit for a product that contains Mancozeb + Metalaxyl to control Downy mildew<br>Alternaria leaf spots. | Australia: APVMA reconsideration. <a href="#">Prioritised to be commenced by 2027.</a><br>EU: Not approved<br>UK: Withdrawn (2024).<br>USA: Under Registration Review (scheduled)   |
| METALAXYL                  | 4         | Damping off / Pythium; Downy mildew   | Australia: No current concerns.<br>Permit PER90595 Expiry date: 31/01/2029<br>EU: Approved, candidate for substitution.<br>Canada: In re-evaluation   |
| PENTHIOPYRAD               | 7         | Alternaria leaf spot; Powdery mildew  | Australia: No current concerns.   |
| PHOSPHOROUS ACID AND SALTS | P07 (33)  | Damping off and downy mildew  | Australia: No current concerns.<br>Permit PER14184 Expiry date: 31/03/2030  |
| PROPICONAZOLE              | 3         | Leaf Spot (Cercospora spp.)   | Australia: <a href="#">APVMA nominated for reconsideration and spray drift assessment.</a><br>Permit PER14479 Expiry date: 31/08/2029<br>EU: Not approved<br>Canada: In re-evaluation<br>USA: Under Registration Review (scheduled) |
| PYDIFLUMETOFEN             | 7         | Early blight (target spot, leaf spot) (Alternaria spp.) Powdery mildew (Erysiphe spp., Oidium spp.) Cercospora leaf spot (Cercospora spp.)  | Australia: No current concerns.<br>EU: Pending<br>Canada: In re-evaluation  |

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|--------------------|-----------|---|---|
| TEBUCONAZOLE       | 3         | Sclerotinia Rot (Sclerotinia species);<br>PER14479-Expiry date 31/08/2029 for Leaf Spot (Cercospora spp.) | Australia: APVMA: Removed from nomination list - maintain watching brief<br>EU: Approved, candidate for substitution.<br>Canada: In re-evaluation<br>USA: Under Registration Review (scheduled) |
| TOLCLOFOS-METHYL   | 14        | Rhizoctonia   | Australia: No current concerns.   |
| TRIFLOXYSTROBIN    | 11        | Alternaria leaf spot  | Australia: No current concerns.<br>Permit PER14891 Expiry date: 30/06/2029<br>Canada: In re-evaluation  |

### HERBICIDES – Weed Control

| Active Constituent | MoA Group | Risks and Comments   |
|--------------------|-----------|--|
| CHLORIDAZON        | 5         | Australia: No current concerns.  |
| CLETHODIM          | 1         | Australia: No current concerns.  |
| DIQUAT             | 22        | Australia: APAPVMA: <u>Currently under review</u> . Publication of the final regulatory decision is <b>now expected in Mid 2026</b> .<br>EU: Not approved<br>USA: No agricultural uses allowed. Aquatic herbicide. |
| ETHOFUMESATE       | 15        | Australia: No current concerns.<br>Canada: In re-evaluation  |
| GLYPHOSATE         | 9         | Australia: Nominated for targeted spray drift reconsideration<br>USA: Under Registration Review (scheduled)  |

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|                    |    |   |
|--------------------|----|---|
| PARAQUAT           | 22 | Australia: APVMA: <a href="#">Currently under review</a> . Publication of the final regulatory decision is now expected in Mid 2026. Candidate chemical recommended to be listed to Rotterdam Convention.<br>EU: Not approved<br>Canada: Cancelled<br>USA: Restricted use |
| PHENMEDIPHAM       | 5  | Australia: No current concerns.   |
| PROPACHLOR         | 15 | Australia: No current concerns.<br>EU: Not approved   |
| QUIZALOFOP-P-ETHYL | 1  | Australia: No current concerns.   |
| SETHOXYDIM         | 1  | Australia: No current concerns.<br>EU: Not approved<br>Canada: Phase-Out  |

### FUMIGANTS – Mixed Function



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|    |   |
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| Active Constituent                 | Use  | Risks and Comments  |
|------------------------------------|--|---|
| CHLOROPICRIN + 1,3-DICHLOROPROPENE | Control of soil borne diseases, plant parasitic Nematodes, Symphylans and Wireworms            | <p>CHLOROPICRIN<br/>Australia: No current concerns.<br/>EU: Not approved<br/>USA: Restricted use</p> <p>1,3-DICHLOROPROPENE<br/>Australia: No current concerns.<br/>EU: Pending<br/>Canada: Cancelled</p> |
| DAZOMET                            | Control of bacterial spot (Xanthomonas spp.) (suppression only).<br>Soil insects and nematodes | Australia: No current concerns.<br>USA: Under Registration Review (scheduled)   |
| ETHANEDINITRILE                    | Soil borne pathogens, nematodes and weeds  | Australia: No current concerns.   |
| METHAM PRESENT AS SODIUM SALT      | Germinating weeds and soil-borne fungus diseases   | Australia: No current concerns.   |

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