Trojan®—aphid anti-feed and early season insect control in cereals

Trojan® is the most potent pyrethroid insecticide available in the world. Its unique microcapsule formulation gives it an excellent safety profile and ensures the widest range of compatibility. Trojan® is a 150g/L formulation of gamma-cyhalothrin.

Trojan®’s unique combination of arguably the most potent pyrethroid active ingredient, with leading edge micro-encapsulation technology, means the one product can deliver, excellent compatibility and crop safety, ultra low dose rates, extended residual control and reduced risk of paresthesia.

TECHNICAL
Gamma-cyhalothrin, the active ingredient in Trojan® Insecticide, is a single stereoisomer alpha-cyano pyrethroid that is regarded as the most potent pyrethroid insecticide available in the world. The ultra low dose rate makes it easy and safer to use. 5 Litres of Trojan® can treat up to 500 hectares of crop.

FORMULATION
Trojan® is produced using unique microcapsule suspension formulation technology giving consistent high performance, offering excellent rain-fastness, temperature tolerance, increased residual activity, very low dose rates, low volatility and non-flammability improving the ease of handling, use and transportation.

Trojan® is the only Schedule 5 (Caution signal heading) synthetic pyrethroid registered in Australia for use in broadacre cropping. It also has significantly reduced risk of paresthesia (skin and face burn or irritation).

Trojan® offers both fast knockdown and extended control of insect pests. Initial control of established pest populations occurs primarily through direct contact of the insect pests with collapsing microcapsules. Larger capsules remain intact, gradually releasing the gamma-cyhalothrin over time giving long-lasting control.

The significant reduction of solvents combined with the low dose rate means excellent compatibility and crop safety. This means no added crop phytotoxicity even when mixed with herbicides, fungicides or UAN.

FIGURE 1 Electron micrograph of capsules

FIGURE 2 Aphid on wheat
CROP ESTABLISHMENT IN CEREALS: FEATURES AND BENEFITS

<table>
<thead>
<tr>
<th>FEATURES</th>
<th>BENEFITS</th>
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<tbody>
<tr>
<td>Low solvent load in formulation</td>
<td>No added crop burn</td>
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<tr>
<td></td>
<td>Excellent compatibility with herbicides, fungicides and UAN</td>
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<tr>
<td>Advanced micro-encapsulation formulation</td>
<td>30 minute rainfastness, the shortest on the market</td>
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<td>Controlled release leading to extended residual control</td>
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<td>Low dose rate</td>
<td>Easy and safer to use, 5 litres can treat 500 ha</td>
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<td>Reduced cost of transport and storage</td>
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<tr>
<td>Good safety profile</td>
<td>Only S5 pyrethroid on the market</td>
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<td></td>
<td>Significantly reduced risk of paresthesia</td>
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<tr>
<td>Broad spectrum control</td>
<td>Excellent control of establishment pests</td>
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<td>Only pyrethroid required</td>
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CEREALS: BARLEY, WHEAT ONLY

<table>
<thead>
<tr>
<th>PEST</th>
<th>STATE</th>
<th>RATE mL/ha</th>
<th>WHP days</th>
<th>CRITICAL COMMENTS</th>
</tr>
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<tbody>
<tr>
<td>Pasture Webworm <em>(Hednota spp.)</em></td>
<td>Vic, NSW, ACT, Tas, SA, WA only</td>
<td>10</td>
<td></td>
<td>Pre-seeding: The product can be tank mixed with knock down herbicides. Post crop emergence: Inspect crop regularly from sowing. Spray at first sign of damage. Use a minimum of 50 L water/ha. Apply at first sign of infestation before larvae are 10 mm long.</td>
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<tr>
<td>Pink or Brown Cutworm <em>(Agrotis munda)</em></td>
<td>All States</td>
<td>10 or 15</td>
<td></td>
<td>For best results apply at first sign of infestation before larvae are 10 mm long. If larvae are larger than 10 mm use the higher rate. Use a minimum of 50 L water.</td>
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<tr>
<td>Common Cutworm <em>(Agrotis infusa)</em></td>
<td>NSW only</td>
<td>17 or 35</td>
<td>14 H, G</td>
<td>Treat as soon as possible after the autumn rains stimulate egg hatching and activity of existing larvae. This can be ascertained by monitoring soil populations in known areas. For best results spray when the larvae have surfaced to feed after rain. Preferably use a boom spray delivering 70-100 L water/ha. Use the lower rate until early June and the higher rate after mid-late June. DO NOT USE ULV APPLICATION FOR THIS PEST.</td>
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<tr>
<td>Blackhead Pasture Cockchafer <em>(Aphodius tasmaniae)</em></td>
<td>NSW, ACT, Vic, Tas, SA, WA only</td>
<td>8* (see footnote)</td>
<td></td>
<td>If mites are present on an establishing crop, apply at first sign of crop emergence. Monitor crop regularly for reinfestation and respray if necessary.</td>
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<tr>
<td>Redlegged Earthmite <em>(Halotydeus destructor)</em></td>
<td>NSW, ACT, Vic, Tas, SA, WA only</td>
<td>8* (see footnote)</td>
<td></td>
<td>To control aphids, sprays should be applied at 4 and 8 weeks after emergence to reduce aphid colonisation and suppress Barley yellow dwarf virus. Use the higher rate when greater than 15 aphids on 50% of tillers is expected during the season.</td>
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<tr>
<td>Aphids <em>(Rhopalosiphum spp.)</em>, (Barley Yellow Dwarf virus vectors)</td>
<td></td>
<td>10 or 15</td>
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*Blue Oat Mites often co-occur with Redlegged Earthmites and the 8 mL/ha rates of FMC Trojan® Insecticide may be less effective against Blue Oat Mites.*