Insecticide for the control of certain insect pests on vegetables, fruit and field crops, and pasture.

Active Ingredient: Contains 100 g/litre alpha-cypermethrin in the form of an emulsifiable concentrate. Also contains 751 g/litre xylene.

Chemical Group: Synthetic pyrethroid.

- Highly active synthetic pyrethroid insecticide
- Excellent knockdown and residual activity
- Effective against a broad spectrum of pests
- Registered for use in a wide range of situations including field crops, horticulture and pasture
- Provides economical control of damaging insect pests

General Information
FASTAC is a contact and residual insecticide. It can be used as a protective treatment when applied at regular intervals or as knockdown treatment to control existing infestations.

Mode of Action
FASTAC kills insects by acting directly on the nervous system following direct contact and/or ingestion off treated plant surfaces.

Resistance Management
Resistance to this product and other synthetic pyrethroid insecticides may develop following excessive use. Some pests are already resistant to synthetic pyrethroids in parts of New Zealand. To minimize risks from resistance:
- Use strictly in accordance with label instructions
- Use pesticides from more than one chemical class during the season
- Maintain good cultural practices
Consult your supplier or consultant for full and up-to-date information about each crop and for information on pesticides of different classes. For crops infested or likely to be infested with corn earworm or tomato fruitworm, do not apply before January 7. For crops infested with diamond back moth or onion thrips, do not use before late January.

Directions for Use
Since FASTAC has no systemic action thorough spray coverage of all foliage is essential for optimal results. Do not apply if rain is expected within 6 hours after application. Dilution rates are for high volume spraying to run-off. For concentrate spraying, adjust the dilution rates accordingly.

<table>
<thead>
<tr>
<th>Crop</th>
<th>Pest</th>
<th>Rate</th>
<th>Remarks</th>
</tr>
</thead>
</table>
| Vegetable    | Diamond-back moth (Plutella xylostella), | 200-250 ml/ha    | Apply on a 14-day schedule from transplanting. Use only after mid-January based on crop monitoring. Use in alternation with a non-synthetic pyrethroid product. Gradually increase the spray volume per hectare as the plants grow to ensure thorough coverage of all foliage. Use a non-ionic wetting agent. Refer to wetting agent label for specific instructions. For cutworm apply once at the first sign of damage. See Resistance Management comments.
<p>| Brassicas    | White butterfly (Pieris rapae), White    | in a minimum of  |                                                                                                                                              |
|              | butterfly (Pieris rapae), Tomato         | 700 litres of    |                                                                                                                                              |
|              | fruitworm (Helicoverpa armigera), White  | water per       |                                                                                                                                              |
|              | butterfly (Pieris rapae), Tomato         | hectare          |                                                                                                                                              |
|              | fruitworm (Helicoverpa armigera), Greasy |                  |                                                                                                                                              |
|              | cutworm (Agrotis ipsilon)                |                  |                                                                                                                                              |</p>
<table>
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<th>Rate</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maize and Sweetcorn</td>
<td>Greasy cutworm (<em>Agrotis ipsilon</em>), Armyworm (<em>Mythimna separata</em>), Corn earworm (<em>Helicoverpa armigera</em>)</td>
<td>150-200 ml/ha in 300 to 600 litres of water per hectare</td>
<td>For cutworm, apply immediately damage to seedlings is noted. Preferably apply to the base of the plants and surrounding soil. If used before 7 January, ensure no spray drift onto headlands where corn earworm may be living. For armyworm, apply immediately pests appear, and use higher water rates to ensure penetration of the spray to the base of the crop. For corn earworm, apply immediately pests appear on the silks. Repeat every 10-14 days or as dictated by pest activity. Use only after 7 January and if crop monitoring shows need. See Resistance Management comments.</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>For aerial application to maturing crops, use at least 100 litres of water per hectare</td>
</tr>
<tr>
<td>Onions</td>
<td>Onion thrips (<em>Thrips tabaci</em>)</td>
<td>150-200 ml/ha in a minimum of 500-600 litres of water per hectare</td>
<td>Use only after mid-January. Apply when pests appear and repeat every 14 days or as dictated by pest activity. Use the higher rate when thrip numbers are high. Use in alternation with a non-synthetic pyrethroid product. Use a wetting agent to ensure good coverage of plants including the base of the leaves. See Resistance Management comments.</td>
</tr>
<tr>
<td>Pasture</td>
<td>Tasmanian grass grub larvae (<em>Aphodius tasmaniae</em>)</td>
<td>100-150 ml/ha</td>
<td>Apply in autumn at first appearance of grubs and pasture damage. Use the higher rate when larvae are more than 1 cm long</td>
</tr>
<tr>
<td></td>
<td>Red-legged earth mite (<em>Halotydeus destructor</em>)</td>
<td>50 ml/ha</td>
<td>Apply when mite damage (leaf bleaching) is noted, especially on legume seedlings. See Resistance Management comments.</td>
</tr>
<tr>
<td>Stonefruit</td>
<td>Green peach aphid (<em>Myzus persicae</em>)</td>
<td>20-25 ml/100 litres of water</td>
<td>Use before flowering only. Apply at the first sign of aphid presence. Repeat every 14 days if needed. Use the higher rate when aphid numbers are high.</td>
</tr>
<tr>
<td>Tomatoes</td>
<td>Tomato fruitworm (<em>Helicoverpa armigera</em>)</td>
<td>20-30 ml/100 litres of water with a minimum water rate of 600 litres per hectare.</td>
<td>Use only after 7 January and if crop monitoring shows need. Use the high rate when pest activity is high and/or when larvae are 10-20 mm long. Repeat application if monitoring shows need. Gradually increase the volume of application as the crop matures to ensure good coverage. A spray pressure of at least 420 kPa is required to ensure good penetration of foliage and effective coverage of crop. See Resistance Management comments.</td>
</tr>
<tr>
<td>Non-bearing fruit trees and vines and newly planted shelter belts provided they are not in flower</td>
<td>Grass grub beetle (<em>Costelytra zealandica</em>)</td>
<td>50 ml/100 litres of water</td>
<td>Apply at dusk as a moderately fine spray (e.g. No. 5 tip and No. 45 swirl plate) to ensure complete foliar coverage. Apply at 7 day intervals over the beetle emergence and flight period, beginning when beetles first appear. Includes use on non-bearing berryfruit, kiwifruit, pipfruit, stonefruit, tamarillos, avocados and grapes.</td>
</tr>
</tbody>
</table>

**Withholding Periods:**

Do not harvest vegetable brassicas or tomatoes within 3 days, sweetcorn within 7 days, or onions within 14 days of application. Do not graze or feed treated maize or sweetcorn stubble to livestock within 14 days of application. Do not graze pasture within 7 days of application or cut for stockfeed within 14 days of application. Do not apply to stonefruit after the appearance of the first flower. Do not apply to kiwifruit after cracking of flower buds (first visible petals).

** Compatibility:**

Do not mix with strongly alkaline materials such as Bordeaux mixture and lime sulphur. Do not mix FASTAC with wettable powders and water dispersible granules before addition to the spray tank. FASTAC can be tank mixed with mancozeb WG provided the mixture is agitated efficiently and used immediately.
Toxicity

POISON. LD₅₀ data is not available for this formulation. The following data is for technical alpha-cypermethrin. Acute oral LD₅₀ (rat) 64 mg/kg. Acute dermal LD₅₀ (rat) >2000 mg/kg.

First Aid

If swallowed, do NOT induce vomiting. For advice contact the National Poisons Centre 0800 POISONS (0800 764 766) or a doctor immediately. If skin or hair contact occurs, remove contaminated clothing and wash skin and hair with soap and running water. Do NOT scrub the skin. If splashed in eyes, hold eyelids apart and flush the eye continuously with running water. If inhaled, move victim to fresh air immediately. Begin artificial respiration if breathing has stopped.

Precautions

User:
Warning. This substance may be harmful if swallowed, inhaled or absorbed through the skin. May cause skin or eye irritation. This material may be an irritant to individuals with sensitive skin. Keep out of reach of children. Avoid contact with eyes and skin. Avoid breathing vapour, mist or spray. When opening the container and preparing spray, wear cotton overalls buttoned to the neck and wrist, washable hat, elbow length PVC gloves and face shield. Do not eat, drink or smoke while using. Remove protective clothing and wash hands, face and exposed skin thoroughly before meals and after work. Wash contaminated clothing before re-use.

Contact and non-contact re-entry:
When fully dry.

Environment:
TOXIC TO BEES. Spray must not contact plants in flower if they are likely to be visited by bees. TOXIC TO FISH AND OTHER AQUATIC ORGANISMS. Do NOT contaminate ponds, waterways and drains with chemical or empty containers. Dispose of empty container safely.

Storage:
FLAMMABLE – do not store or use near sources of heat, naked flames or sparks. Store in original container, tightly closed, in a dry, cool, well-ventilated area out of direct sunlight and under lock and key. Segregate from foods and animal feeds.

Disposal:
Triple rinse empty container and add the residue to spray the tank. Crush rinsed container and bury in suitable landfill. Avoid contamination of any water supply with chemical or empty container.

Pack Size

1 litre metal can

Transport Information

<table>
<thead>
<tr>
<th>UN No.:</th>
<th>DG Class:</th>
<th>Subsidiary Risk:</th>
<th>Packing Group:</th>
<th>HAZCHEM:</th>
<th>MTQ*:</th>
<th>Marine Pollutant:</th>
</tr>
</thead>
<tbody>
<tr>
<td>3351</td>
<td>6.1</td>
<td>3</td>
<td>III</td>
<td>3W</td>
<td>250 L</td>
<td>Yes</td>
</tr>
</tbody>
</table>

* Maximum Transport Quantity. Maximum quantity that can be carried as tools of trade, or for private, agricultural or commercial use without the need for complying with all the requirements of the Land Transport Rule e.g. placarding.

Date of Issue

July 2003

FASTAC is a POISON. Keep out of reach of children.

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