

DANGEROUS POISON

KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

SINMAS[®] 225

INSECTICIDE

ACTIVE CONSTITUENT: 225 g/L METHOMYL
(an anti-cholinesterase compound)
SOLVENT: 644 g/L METHANOL

GROUP 1A INSECTICIDE

For the control of certain insect pests as recommended in the Directions for Use table in the attached Label Booklet.

**IMPORTANT:
READ THIS BOOKLET BEFORE
USING THIS PRODUCT**

APVMA APPROVAL
NO: 60419/1106

 **sinon[®]**

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DIRECTIONS FOR USE

RESTRAINTS:

DO NOT use in covered or protected situations such as glasshouses, greenhouses or plastic tunnels.

| TREE AND VINE CROPS | | | | |
|---|--|----------------------------------|------------------------|-----------------------------------|
| RATE | | | | |
| In the following table, all rates are given for dilute spraying. For concentrate spraying, refer to the Application Section. | | | | |
| CROP | PEST | STATE | RATE | WHP Harvest (H) Grazing (G) |
| Apples | | | | |
| | <i>Helicoverpa</i> spp. | TAS, WA only | 150 to 200 mL/100 L | 1 day (H) |
| | Light brown apple moth (<i>Epiphyas postvittana</i>) | QLD, Vic, Tas, SA, WA only | | |
| | | NSW, ACT only | 150 mL/100 L | |
| | Codling moth (<i>Cydia pomonella</i>) | NSW, ACT, Vic, WA only | | |
| Plague thrips (<i>Thrips imaginis</i>), Dimple bug (<i>Campylomma livida</i>) | QLD, WA only | 200 mL/100 L | | |
| Blueberries | Monolepta beetle, (<i>Monolepta australis</i>) <i>Helicoverpa</i> spp., Plague thrips (<i>Thrips imaginis</i>) | NSW, ACT, WA only | 100 mL/100 L | 5 days (H) |
| Cherries | Thrips | QLD, WA only | 200 mL/100 L | 1 day (H) |

CRITICAL COMMENTS

For all uses in this Tree and Vine Crop table:

- Apply by dilute or concentrate spraying equipment.
- Apply the same total amount of product to the target crop whether applying this product by dilute or concentrate spraying methods.

CRITICAL COMMENTS

This product is highly toxic to bees.

DO NOT spray while bees are foraging.

Spraying is recommended between early evening and dawn when bees are less active.

Apply at calyx stage and repeat at 14 day intervals or as required depending on infestation.

(Refer to Larvicidal Application Instructions for more detail).

Apply on a 14-day schedule for late season control of light infestations only. Moderate to heavy infestations of codling moth will not be controlled.

Apply when pest levels reach an economically damaging level and repeat if necessary.

This product is toxic to bees exposed to direct application. **DO NOT** apply while bees are actively foraging. Apply when bees have ceased foraging such as late in the afternoon.

Monolepta beetle: Apply according to pest incidence.

Helicoverpa spp.: Apply when the infestation reaches an economically damaging level.

Plague thrips: Apply when numerous on flowers.

Apply at petal fall. Apply as a high volume spray ensuring adequate spray penetration.

TREE AND VINE CROPS (continued)
RATE

In the following table, all rates are given for dilute spraying.
For concentrate spraying, refer to the Application Section.

| CROP | PEST | STATE | RATE | WHP Harvest (H) Grazing (G) |
|------------------------------|--|-----------------------------|------------------------|-----------------------------------|
| Citrus | Long-tailed mealy bug | SA, WA only | 200 mL/100 L | 2 days (H) |
| | Light brown apple moth (<i>Epiphyas postvittana</i>) | NSW, ACT, SA, WA only | | |
| | Spined citrus bug (<i>Biprorulus bibax</i>), Bronze orange bug (<i>Musgraveia sulciventris</i>) | QLD, Vic, SA, WA only | 25 mL/100 L | |
| | <i>Helicoverpa</i> spp. | | 200 mL/100 L | |
| | Large citrus butterfly (<i>Papilio aegeus aegeus</i>) Small citrus butterfly (<i>Papilio anactus</i>) | | | |
| Grapes | Light brown apple moth (<i>Epiphyas postvittana</i>) | All States | 150 mL/100 L | 7 days (H) |
| | Vine moth (<i>Phalaenoides glycinae</i>) | | | |
| Peaches and Nectarines | Green peach aphid (<i>Myzus persicae</i>) | All States | 100 mL/100 L | 1 day (H) |
| | <i>Helicoverpa</i> spp. | Tas, WA only | 150 mL/100 L | |
| | <i>Monolepta</i> beetle | NSW, ACT only | 100 mL/100 L | |
| | Thrips | QLD, WA only | 200 mL/100 L | |
| Pears | Light brown apple moth (<i>Epiphyas postvittana</i>) | Vic, WA only | 150 to 200 mL/100 L | 2 days (H) |

CRITICAL COMMENTS

For all uses in this Tree and Vine Crop table:

- Apply by dilute or concentrate spraying equipment.
- Apply the same total amount of product to the target crop whether applying this product by dilute or concentrate spraying methods.

CRITICAL COMMENTS

Apply in August or late November to early December when fruit is absent and young mealybug are present. Treatment will prevent mealybug attacking under the fruit calyx.

Apply in late November to early December when fruit is absent to prevent light brown apple moth attacking under the fruit calyx.

Apply when the infestation reaches an economically damaging level but before bugs reach the adult winged stage.

Spray only if heavy infestations occur on young foliage and fruit.

In young trees only, apply to cover unhardened leaves from recent growth flushes when infestations are seen.

Apply during early shoot growth/flowering if pest populations indicate. Apply again just before bunches close if light brown apple moth is seen. Control at later stages if bunching is difficult.

Apply when infestation reaches an economically damaging level and repeat if necessary.

Apply when infestation reaches an economically damaging level and repeat if necessary.

DO NOT apply to early peach varieties or to stressed trees.

Apply to blossoms of affected trees where beetles are feeding. Apply from July to September when infestations occur.

Apply at petal fall. Apply as a high volume spray ensuring adequate spray penetration.

Apply at calyx stage from late November onwards and repeat at 14 day intervals or as required depending on infestation.

NON-TREE AND VINE CROPS

| CROP | PEST | STATE | RATE | WHP Harvest (H) Grazing (G) |
|---|---|--|--|--------------------------------|
| BROADACRE CROPS: Beans – Broadbeans, French beans, Long beans, Navy beans | Beanfly (<i>Ophiomyia phaseoli</i>) | QLD, NSW, ACT, WA, NT only | 100 mL/100 L or 1.5 to 2 L/ha | 1 day (H) |
| | <i>Thrips</i> spp. | | | |
| | Looper (<i>Chrysodeixis subsidents</i>) | | 1.5 L/ha | |
| | Green vegetable bug (<i>Nezara viridula</i>) | | | |
| Legume seed crops | <i>Helicoverpa</i> spp. | Qld, NSW, ACT, Tas, WA, NT only | Larvicide: 1.5 to 2 L/ha Ovicide/La rvicide: 500 mL to 1 L/ha | |
| | Corn earworm (<i>Helicoverpa armigera</i>) | QLD, NT only | | |
| | Bean pod borer (<i>Maruca testulalis</i>) | QLD, WA, NT only | 1.5 to 2 L/ha | |
| Canola | Cabbage moth (<i>Plutella xylostella</i>) | WA only | 1 L/ha | 7 days (H) |
| | <i>Helicoverpa</i> spp. | NSW, ACT, Vic, Tas, WA, SA only | 1.5 to 2 L/ha | |
| | | NSW, ACT only | 500 mL to 1 L/ha | |

CRITICAL COMMENTS

Apply 3 days after seedlings emerge, then 4 days later. Repeat at weekly intervals until blossoming.

Apply when infestation reaches an economically damaging level and repeat if necessary. Spray to penetrate blossoms.

Apply when infestation reaches an economically damaging level and repeat if necessary. It is especially important to control this pest during and after flowering.

Larvicide: Apply when infestation reaches an economically damaging level and repeat if necessary. Spray to penetrate blossoms. (Refer to Larvicidal Application Instructions for more detail).

Ovicide/Larvicide: Refer to Ovicidal/Larvicidal Application Instructions.

Apply when infestation reaches an economically damaging level and repeat if necessary. Spray to penetrate blossoms. (Refer to Larvicidal Application Instructions for more detail).

Larvicide: Apply when infestation reaches an economically damaging level and repeat if necessary. (Refer to Larvicidal Application Instructions for more detail).

Ovicide/Larvicide: Refer to Ovicidal/Larvicidal Application Instructions.

NON-TREE AND VINE CROPS (continued)

| CROP | PEST | STATE | RATE | WHP Harvest (H) Grazing (G) |
|--|--|---|---|--|
| Cotton | <i>Helicoverpa</i> spp. | QLD, NSW, ACT, WA only | 500 mL to 1 L/ha plus a non-ionic surfactant at registered label rates | NIL (H) DO NOT graze or feed treated crops to animals |
| | | | 1.8 to 2.4 L/ha | |
| | Looper (<i>Chrysodeixis subsidents</i>) | QLD, WA only | 1.8 to 2.4 L/ha | |
| Lentils | <i>Helicoverpa</i> spp. | QLD, NSW, ACT, WA only | 1.5 to 2 L/ha | 1 day (H) |
| Linseed | <i>Helicoverpa</i> spp. | QLD, WA only | 1.5 to 2 L/ha | 7 days (H) |
| Lucerne (grazing, hay and seed) | <i>Helicoverpa</i> spp. | WA only | 1 to 2 L/ha | 3 days (G) |
| | | QLD, NSW, ACT, Vic, Tas, SA, NT only | 1.5 to 2 L/ha | |
| Lupins | <i>Helicoverpa</i> spp. | Vic, Tas only | 1.5 L/ha | 7 days (H) |
| | | QLD, NSW, ACT, WA only | 1.5 to 2 L/ha | |
| | | | 500 mL to 1 L/ha | |

CRITICAL COMMENTS

DO NOT graze or feed treated crops to animals.

Ovicide/Larvicide: Thorough spray coverage is essential for adequate ovicidal activity. Apply the lower rate when egg numbers are from 1 to 2 times the economic threshold and no larvae are present. Apply the higher rate when egg numbers exceed 2 times the economic threshold and when larvae do not exceed 3mm in length and they are exposed. Continue applications on this basis at 4 to 5 day intervals. When larvae longer than 3mm are present or when larvae are entrenched, add an effective larvicide at recommended rates, or apply the higher rates of this product recommended below.

Larvicide:

Application of these rates may redden cotton foliage depending on the frequency of application and the degree of plant stress. **DO NOT** apply to stressed plants. If reddening is excessive, discontinue use of this product and use other insecticides until the crop has recovered.

Apply the lower rate when larvae are small or infestations are light.
Apply the higher rate when larvae are large or infestations are heavy.

Apply when infestation reaches an economically damaging level and repeat if necessary.

Examine crops at least twice weekly during flowering to podding for larvae and their damage. Use the higher rate if the infestation is heavy.

Apply sprays from early flowering. Repeat if necessary. Larvae completely enclosed inside pods at time of spraying may not be killed.
(Refer to Larvicidal Application Instructions for more detail).

Apply when infestation reaches an economically damaging level and repeat if necessary.
(Refer to Larvicidal Application Instructions for more detail).

Larvicide: Apply when infestation reaches an economically damaging level and repeat if necessary.
(Refer to Larvicidal Application Instructions for more detail).

Ovicide/Larvicide: Refer to Ovicidal/Larvicidal Application Instructions.

NON-TREE AND VINE CROPS (continued)

| CROP | PEST | STATE | RATE | WHP Harvest (H) Grazing (G) |
|--|--|--------------------------------|--------------------------------------|-----------------------------|
| Maize | <i>Helicoverpa</i> spp. | All States | 150 to 200 mL/100 L or 1.5 to 2 L/ha | 14 days (H) 14 days (G) |
| | | | 100 mL/100 L or 1 L/ha | |
| | Armyworms (<i>Pseudaletia convecta</i> , <i>Persectania ewingii</i> , <i>Persectania dyscrita</i>) | QLD, NSW, ACT, SA, WA, NT only | 1.5 L/ha | 14 days (H) 14 days (G) |
| Mint, Poppies | <i>Helicoverpa</i> spp. | Tas, WA only | 1.5 to 2 L/ha | 14 days (H) |
| Mung beans (seed production) | <i>Helicoverpa</i> spp. | QLD, NSW, ACT, WA, NT only | 1.5 to 2 L/ha | 7 days (H) |
| | | QLD, WA only | 500 mL to 1 L/ha | |
| | Green vegetable bug (<i>Nezara viridula</i>) | QLD, NSW, ACT, WA, NT only | 1.5 L/ha | |
| | Bean pod borer (<i>Maruca testulalis</i>) | QLD, WA, NT only | 1.5 to 2 L/ha | |
| Native pastures, Improved pastures (alone or with legumes) | Common armyworm (<i>Pseudaletia convecta</i>) | Vic only | 1.5 to 2 L/ha | 3 days (G) |
| | Armyworms (<i>Pseudaletia convecta</i> , <i>Persectania ewingii</i> , <i>Persectania dyscrita</i>) | QLD, NSW, ACT, SA, WA only | | |
| | Southern armyworm (<i>Persectania ewingii</i>) | Tas, WA only | | |
| | Buffel grass seed caterpillar (<i>Mampava rhodoneura</i>) | QLD, WA only | 1.75 L/ha | |

CRITICAL COMMENTS

Larvicide: Apply initial spray at early silking or when eggs are first seen on silks. Repeat at 2 to 3 day intervals during silking if infestation continues. Use sufficient spray volume to thoroughly cover young developing cobs.

NSW only: Control at tasselling stage may also be necessary. Application when 80% of the cobs are at early silking stage is very important. (Refer to Larvicidal Application Instructions for more detail).

Ovicide: Use this rate only where crops are monitored for eggs and larvae. Apply when only eggs are present. As soon as any larvae are present, use larvicidal rates as recommended above.

Apply when infestation reaches an economically damaging level and repeat if necessary.

Note: As all armyworms, except the dayfeeding armyworm, feed mainly during the evening, spraying at dusk is recommended.

Apply when infestation reaches an economically damaging level and repeat if necessary. (Refer to Larvicidal Application Instructions for more detail).

Larvicide: Apply when infestation reaches an economically damaging level and repeat if necessary. (Refer to Larvicidal Application Instructions for more detail).

Ovicide/Larvicide: Refer to Ovicidal/Larvicidal Application Instructions

Apply when infestation reaches an economically damaging level and repeat if necessary. (Refer to Larvicidal Application Instructions for more detail).

Refer to Larvicidal Application Instructions for more detail. **Note:** As all armyworms, except the dayfeeding armworm, feed mainly during the evening, spraying at dusk is recommended.

Apply when infestation reaches an economically damaging level and repeat if necessary. Ensure thorough spray penetration to obtain effective control of the pest.

NON-TREE AND VINE CROPS (continued)

| CROP | PEST | STATE | RATE | WHP Harvest (H) Grazing (G) |
|---|--|--|------------------------|--|
| Pasture legume seed crops | <i>Helicoverpa</i> spp. | QLD, WA only | 1.5 to 2 L/ha | 3 days (G) |
| Peanuts | <i>Helicoverpa</i> spp. | QLD, WA, NT only | 1.5 to 2 L/ha | 14 days (H) |
| Peas | <i>Helicoverpa</i> spp. | Vic, Tas only | 1.5 L/ha | Peas: 1 day (H) |
| Peas (including Chickpeas, Field peas and Pigeon peas) | | QLD, NSW, ACT, SA, WA only | 1.5 to 2 L/ha | Chickpeas, Pigeon peas: 7 days (H) |
| | | | 500 mL to 1 L/ha | |
| | Looper (<i>Chrysodeixis subsidens</i>) | | 1.5 L/ha | |
| | <i>Thrips</i> spp. | | 100 mL/100 L or 1 L/ha | |
| Peas (including Cowpeas and Adzuki beans) | <i>Helicoverpa</i> spp. | NSW, ACT, SA (not Adzuki Beans), WA only | 1.5 to 2 L/ha | Peas: 1 day (H) |
| | | | 500 mL to 1 L/ha | Cowpeas, Adzuki beans: 7 days (H) |
| Pigeon peas, Cowpeas, Adzuki beans | Green vegetable bug (<i>Nezara viridula</i>) | NSW, ACT, WA only | 1.5 L/ha | 7 days (H) |
| Sesame seed | Corn earworm (<i>Helicoverpa armigera</i>) | QLD, WA, NT only | 1.5 to 2 L/ha | 14 days (H) |
| | Green vegetable bug (<i>Nezara viridula</i>) | | 1.5 L/ha | |

CRITICAL COMMENTS

Apply as infestations indicate during the flowering and pod setting period of crop development.

Apply when infestation reaches an economically damaging level and repeat if necessary.
(Refer to Larvicidal Application Instructions for more detail).

Larvicide: Apply when infestation reaches an economically damaging level and repeat if necessary.
(Refer to Larvicidal Application Instructions for more detail).

Ovicide/Larvicide: Refer to Ovicidal/Larvicidal Application Instructions.

Apply when infestation reaches an economically damaging level and repeat if necessary.

Larvicide: Apply when infestation reaches an economically damaging level and repeat if necessary.
(Refer to Larvicidal Application Instructions for more detail).

Ovicide/Larvicide: Refer to Ovicidal/Larvicidal Application Instructions.

Apply when infestation reaches an economically damaging level and repeat if necessary.

Apply when infestation reaches an economically damaging level and repeat if necessary. (Refer to Larvicidal Application Instructions for more detail).

NON-TREE AND VINE CROPS (continued)

| CROP | PEST | STATE | RATE | WHP Harvest (H) Grazing (G) |
|-----------------|---|---|-------------------------|-----------------------------------|
| Sorghum | | | | |
| | <i>Helicoverpa armigera</i> | QLD, NSW, ACT, WA, NT only | 1.5 to 2 L/ha | 14 days (H) 14 days (G) |
| | Armyworms | | 500 mL to 1 L/ha | |
| | Sorghum midge (<i>Contarinia sorghicola</i>) | | 1.5 L/ha | |
| Soybeans | <i>Helicoverpa</i> spp. | QLD, NSW, ACT, WA, NT only | 1.5 to 2 L/ha | 7 days (H) |
| | Green vegetable bug (<i>Nezara viridula</i>) | | 500 mL to 1 L/ha | |
| | Looper (<i>Chrysodeixis subsidens</i>) | | 1.5 L/ha | |
| | Sunflowers | Green vegetable bug (<i>Nezara viridula</i>) | NSW, ACT, WA only | |
| QLD only | | | 1.5 L/ha | |

CRITICAL COMMENTS

Crop checking should commence when the head emerges from the boot and continue daily until the end of flowering for midge and at weekly intervals until maturity for *Helicoverpa*.

Larvicide: Apply when infestation reaches an economically damaging level and repeat if necessary.
(Refer to Larvicidal Application Instructions for more detail).

Ovicide/Larvicide: Refer to Ovicidal/Larvicidal Application Instructions.

Apply when infestation reaches an economically damaging level and repeat if necessary.
NOTE: As all armyworms, except the day feeding armyworm, feed mainly during the evening, spraying at dusk is recommended.

Apply when there are 1 or more Sorghum Midge adults per panicle or according to the threshold recommended by local agricultural authorities.

Larvicide: Apply when infestation reaches an economically damaging level and repeat if necessary.
(Refer to Larvicidal Application Instructions for more detail).

Ovicide/Larvicide: Refer to Ovicidal/Larvicidal Application Instructions.

Apply when infestation reaches an economically damaging level and repeat if necessary.

Larvicide: Apply when infestation reaches an economically damaging level and repeat if necessary. (Refer to Larvicidal Application Instructions for more detail).
NOTE: Spray must be applied before the seed head turn over, to ensure adequate penetration and insect control.

NON-TREE AND VINE CROPS (continued)

| CROP | PEST | STATE | RATE | WHP Harvest (H) Grazing (G) |
|------------------------------------|---|---|---|--|
| Sunflowers | <i>Helicoverpa</i> spp. | NSW, ACT, WA only | 1.5 to 2 L/ha | 7 days (H) |
| | | QLD only | 1.5 L/ha | |
| | | SA only | 2 L/ha | |
| | | QLD,NSW, ACT, SA, WA only | 500 mL to 1 L/ha | |
| Wheat, Oats, Barley | Armyworms | All States | 1 to 1.5 L/ha | 14 days (H) 14 days (G) |
| | Common armyworm (<i>Pseudaletia convecta</i>) | QLD only | 1 L/ha aerial spray only | |
| | <i>Helicoverpa</i> spp. | All States | 1.5 to 2 L/ha | |
| Strawberries | <i>Helicoverpa</i> spp., Cluster caterpillar (<i>Spodoptera litura</i>) Looper (<i>Chrysodeixis subsidents</i>) | Qld, NSW, ACT, Vic, Tas, WA, NT only | 150 mL/100 L or 1.5 L/ha | Fresh: 3 days (H) Frozen: 10 days (H) |
| | <i>Helicoverpa</i> spp., Light brown apple moth | SA, WA only | 150 or 200 mL/ 100 L | |
| Tomatoes | <i>Helicoverpa</i> spp. | All States | 50 to 100 mL/100 L or 500 mL to 1 L/ha | 1 day (H) |
| | | NSW, ACT, WA only | 200 mL/100 L or 2 L/ha | |
| | | QLD, Vic, Tas, SA, WA, NT only | 150 to 200 mL/100 L or 1.5 to 2 L/ha | |

CRITICAL COMMENTS

Larvicide: Apply when infestation reaches an economically damaging level and repeat if necessary.

(Refer to Larvicidal Application Instructions for more detail).

NOTE: Spray must be applied before the seed head turn over, to ensure adequate penetration and insect control.

Ovicide/Larvicide: Refer to Ovicidal/Larvicidal Application Instructions.

Apply when infestation reaches an economically damaging level and repeat if necessary. Where two rates are recommended, use the lower rate against larvae up to 20 mm long and the higher rate against larger larvae.

NOTE: As these armyworms feed mainly during the evening, spraying at dusk is recommended.

Apply when infestation reaches an economically damaging level and repeat if necessary.

NOTE: To avoid the possibility of taint in strawberries to be frozen, **DO NOT** apply later than 10 days before harvest.

Ovicidal control only: Incorporate into a larvicide programme when pest pressure indicates. Use a higher rate at peak egg lay and when eggs are mainly laid on flowers and fruit.

Apply when infestation reaches an economically damaging level and repeat if necessary. For optimum results, the spray interval should not exceed 7 days. (Refer to Larvicidal Application Instructions for more detail).

GROUND APPLICATION:

Low Volume: Use 150 L/ha spray mixture or higher without producing run-off.

High Volume: When applying at high volumes, use 250 L/ha spray mixture at the start of flowering, increasing to 1000 L/ha on mature plants.

NON-TREE AND VINE CROPS (continued)

| CROP | PEST | STATE | RATE | WHP Harvest (H) Grazing (G) |
|-----------------------------|---|----------------------------|--------------------------------------|--------------------------------|
| Tomatoes (continued) | Tobacco leaf miner/Potato moth (<i>Phthorimaea operculella</i>) | QLD, NSW, ACT, WA, NT only | 150 to 200 mL/100 L or 1.5 to 2 L/ha | 1 day (H) |
| | Green vegetable bug (<i>Nezara viridula</i>) | QLD, Tas, WA, NT only | 150 mL/100 L or 1.5 L/ha | |
| | Looper (<i>Chrysodeixis subsidens</i>) | QLD, Tas, WA, NT only | 1.5 L/ha | |

VEGETABLES

| CROP | PEST | STATE | RATE | WHP Harvest (H) Grazing (G) |
|---|--|-------------------------------------|--------------------------------------|--------------------------------|
| Brassicas – Brussel sprouts, Cauliflower, Broccoli, Cabbages | Cabbage white butterfly (<i>Pieris rapae</i>) | QLD, WA, NT only | 100 mL/100 L or 1 L/ha | 1 day (H) |
| | | NSW, ACT, Vic, Tas, SA, WA only | 1 to 2 L/ha | |
| | <i>Helicoverpa</i> spp. | NSW, ACT, Qld, Tas, WA, SA, NT only | 1.5 to 2 L/ha | |
| | Cabbage centre grub (<i>Hellula hydralis</i>) | QLD, NSW, ACT, SA, WA NT only | 1.5 L/ha | |
| | Cluster caterpillar (<i>Spodoptera litura</i>) | QLD, WA, NT only | 1 L/ha | |
| | Looper (<i>Chrysodeixis subsidens</i>) | NSW, ACT Qld, Vic, Tas WA, NT only | 1.5 L/ha | |
| Capsicums (sweet peppers) | <i>Helicoverpa</i> spp. | QLD, WA, NT only | 150 to 200 mL/100 L or 1.5 to 2 L/ha | 1 day (H) |

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| CRITICAL COMMENTS |
| GROUND APPLICATION: Low Volume: Use 150 L/ha spray mixture or higher without producing run-off. High Volume: When applying at high volumes, use 250 L/ha spray mixture at the start of flowering, increasing to 1000 L/ha on mature plants. |
| AERIAL APPLICATION: Ultra Low Volume and Low Volume: Refer to Application Instructions. |

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| CRITICAL COMMENTS |
| Apply when infestation reaches an economically damaging level and repeat if necessary. Ensure adequate spray penetration to obtain effective control of the pests. |
| Apply at 5 to 7 day intervals during the growing season when larvae first appear. Ensure adequate spray penetration to obtain effective control of the pests . (Refer to Larvicidal Application Instructions for more detail). |
| Apply when infestation reaches an economically damaging level and repeat if necessary. Ensure adequate spray penetration to obtain effective control of the pests. (Refer to Larvicidal Application Instructions for more detail). |
| Apply when infestation reaches an economically damaging level and repeat if necessary. Ensure adequate spray penetration to obtain effective control of the pests. |
| Apply when infestation reaches an economically damaging level and repeat if necessary. For optimum results, the spray interval should not exceed 7 days Increase spray volume as plants grow larger to ensure coverage. (Refer to Larvicidal Application Instructions for more detail). |

| VEGETABLES (continued) | | | | |
|------------------------|---|--------------------------------|--------------------------------------|--------------------------------|
| CROP | PEST | STATE | RATE | WHP Harvest (H) Grazing (G) |
| Potatoes | Potato moth (<i>Phthorimaea operculella</i>) | All States | 1.5 to 2 L/ha | ----- |
| | Looper (<i>Chrysodeixis subsidens</i>) | QLD, WA only | 1.5 L/ha | |
| Sweetcorn | <i>Helicoverpa</i> spp. | All States | 150 to 200 mL/100 L or 1.5 to 2 L/ha | 1 day (H) 3 days (G) |
| | | | 100 mL/100 L or 1 L/ha | |
| | | NSW, ACT only | 500 mL to 1 L/100 L | |
| | Armyworm | QLD, NSW, ACT, SA, WA, NT only | 1.5 L/ha | |

| OTHER | | | | |
|---|---|-------------------|--------------------------|--|
| CROP | PEST | STATE | RATE | WHP Harvest (H) Grazing (G) |
| Duboisia | Cluster caterpillar (<i>Spodoptera litura</i>) | QLD, WA only | 100 mL/100 L or 1 L/ha | ----- |
| Ginger | <i>Helicoverpa</i> spp. | QLD, WA only | 150 mL/100 L or 1.5 L/ha | ----- |
| Guar | Green vegetable bug (<i>Nezara viridula</i>), Podsucking bug (<i>Riptortus serripes</i>) | QLD, WA only | 2 L/ha | 7 days (H) |
| Hops | <i>Helicoverpa</i> spp. | Vic, Tas, WA only | 2 L/ha | 14 days (H) DO NOT graze treated crops |
| Tea-tree (<i>Melaleuca alternifolia</i>) | Xylorectid caterpillar, Psyllid, Leafhopper, Crysmelid beetle | NSW, ACT, WA only | 1.5 to 2 L/ha | ----- |

CRITICAL COMMENTS

Apply when infestation reaches an economically damaging level and repeat if necessary.
(Refer to Larvicidal Application Instructions for more detail).

Larvicide: Apply initial spray at early silking or when eggs are first seen on silks. Repeat at 2 to 3 day intervals during silking if infestation continues. Use sufficient spray volume to thoroughly cover young developing cobs. (Refer to Larvicide Application Instructions for more detail).

Ovicide: Use this rate only where crops are monitored for eggs and larvae. Apply when only eggs are present. As soon as any larvae are present, use larvicidal rates as recommended above.

Apply when pests first appear. Repeat depending on infestation.

NOTE: All armyworms, except the dayfeeding armyworm, feed mainly during the evenings, so spraying at dusk is recommended.

CRITICAL COMMENTS

Apply when infestation reaches an economically damaging level and repeat if necessary.

Apply when the pest is evident or damage is seen in young shoots at ground level during early growth.

Apply when infestation reaches an economically damaging level and repeat if necessary.

Apply when infestation reaches an economically damaging level and repeat if necessary.

Apply as a thorough foliar spray.

OTHER (continued):

| CROP | PEST | STATE | RATE | WHP Harvest (H) Grazing (G) |
|----------------|---|-----------------------------|--|------------------------------------|
| Tobacco | Tobacco budworm (<i>Helicoverpa armigera</i>) | QLD, Vic only | 50 mL/100 L | NIL |
| | Cluster caterpillar (<i>Spodoptera litura</i>), <i>Helicoverpa</i> spp., Tobacco looper (<i>Chrysodeixis argentifera</i>), Tobacco leaf miner (<i>Phthorimaea operculella</i>) | QLD, NSW, ACT, Vic, WA only | 100 mL/100 L | |
| | Stubby root nematode (<i>Trichodorus S.L.</i>) | Vic, WA only | 20 L/ha | |
| | Tobacco stemborer (<i>Scrobipalpa heliopa</i>) | QLD, NSW, ACT, WA only | 100 mL/100 L | |
| | Cutworm (<i>Agrotis</i> spp.) | QLD, WA only | 150 mL/100 L or 1.5 L/ha | |
| | True and false wireworms | | 200 mL/100 L or 2 L/ha | |
| | Grasshoppers | | 150 mL/100 L or 1.5 L/ha | |
| | Seed harvesting ants (seed bed only) (<i>Pheidole</i> spp.) | | 200 mL/100 L | |
| | Common brown leafhopper (<i>Orosius argentatus</i>) (vector for tobacco yellow dwarf virus) | Vic, WA only | 45 mL/100 L in transplant water. Six (6) weeks later, apply 450 mL/100L as an overall spray. | |

NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, APPROPRIATE LEGISLATION. IN TASMANIA, THIS PRODUCT SPECIFIC APPROVAL OF THE REGISTRAR OF PESTICIDES.

CRITICAL COMMENTS

Ovicide: Use this rate only where crops are regularly monitored for eggs and larvae. If larvae are present, apply only in combination with a residual larvicide or use alone at the larvicidal rates recommended below.

Larvicide: Use this rate if larvae are present.

Spray volumes: Spray volumes should be increased with plant size/age. The following volumes are recommended. Frequency of application will depend upon pest incidence.

| Plant Age: Time after transplanting | Recommended Spray Volume L/ha |
|--|--|
| 1 to 3 weeks | 250 |
| 4 weeks | 300 |
| 5 weeks | 450 |
| 6 weeks | 550 |
| More than 6 weeks | 900 to 1100 |

Spray onto soil and incorporate to a depth of 10 cm just prior to transplanting.

Apply 10 days after seedlings emerge and repeat at 6 day intervals (7 day intervals NSW only) until transplanting.

Apply at dusk or late afternoon. In seedbeds, use one knapsack per 30 m length of bed. For field plants, ensure base of stem of each plant is well covered with spray.

Apply to fully grown plants when damaging pest numbers first appear and repeat if necessary.

Seed bed only: Apply by pouring directly down the ant hole.

**CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER
MUST NOT BE APPLIED BY AIRCRAFT WITHOUT THE**

WITHHOLDING PERIODS:

HARVEST:

APPLES, BEANS, BROCCOLI, BRUSSEL SPROUTS, CABBAGES, CAPSICUMS, CAULIFLOWER, LENTILS, NECTARINES, PEACHES, PEAS, SWEETCORN, TOMATOES:

CITRUS, PEARS:

STRAWBERRIES (FRESH):

BLUEBERRIES:

CANOLA, CHICKPEAS, GRAPES, GUAR, LINSEED, LUPINS, MUNG BEANS, PIGEON PEAS, SOYBEANS, SUNFLOWERS:

STRAWBERRIES (FOR FREEZING):

MAIZE, MINT, POPPIES, PEANUTS, SESAME SEED, SORGHUM, WHEAT, OATS, BARLEY, HOPS:

GRAZING

COTTON:

HOPS:

LUCERNE, PASTURES, SWEETCORN:

BARLEY, MAIZE, OATS, SORGHUM, WHEAT:

COTTON, DUBOISIA, GINGER, POTATOES, TEA-TREE

| |
|---|
| |
| DO NOT HARVEST FOR 1 DAY AFTER APPLICATION |
| DO NOT HARVEST FOR 2 DAYS AFTER APPLICATION |
| DO NOT HARVEST FOR 3 DAYS AFTER APPLICATION |
| DO NOT HARVEST FOR 5 DAYS AFTER APPLICATION |
| DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION |
| DO NOT HARVEST FOR 10 DAYS AFTER APPLICATION |
| DO NOT HARVEST FOR 14 DAYS AFTER APPLICATION |

| |
|--|
| |
| DO NOT GRAZE OR FEED TREATED CROPS TO ANIMALS |
| DO NOT GRAZE TREATED CROPS |
| DO NOT GRAZE OR CUT FOR STOCKFOOD FOR 3 DAYS AFTER APPLICATION |
| DO NOT GRAZE OR CUT FOR STOCKFOOD FOR 14 DAYS AFTER APPLICATION |
| NOT REQUIRED WHEN USED AS DIRECTED |

GENERAL INSTRUCTIONS

USE OF WETTING AGENT

When diluting with water, add a non-ionic surfactant at registered label rates.

SPRAY PREPARATION

Quarter to half fill spray tank with water. Start agitation (**DO NOT** use air agitation). Add the required amount of this product to the tank and complete filling with water. Add a non-ionic surfactant as recommended above. Continue agitation for several minutes prior to spraying to fully mix the chemical.

APPLICATION

- a) **Larvicidal:** Apply at the recommended rates when the infestation reaches an economically damaging level and repeat as needed. Apply the lower rates on small larvae and on light infestations of insects. Use the higher rate on large larvae and heavier infestations of insects. Best control is obtained when young insects are treated.
- b) **Ovicidal/Larvicidal:** Use these rates only where crops are regularly monitored for eggs and larvae. Use the lower rate when only eggs are present. Use the higher rate when heavy egg lays occur and/or when larvae are less than 3 mm long. If larvae are longer than 3 mm use the larvicidal rates. This product may be used at ovicidal/larvicidal rates in conjunction with other recommended larvicides used to control other insects.

Tree and Vine Crops – Dilute Spraying:

- Use a sprayer designed to apply high volumes of water up to the point of run-off and matched to the crop being sprayed.
- Set up and operate the sprayer to achieve even coverage throughout the crop canopy. Apply sufficient water to cover the crop to the point of run-off. Avoid excessive run-off.
- The required water volume may be determined by applying different test volumes using different settings on the sprayer, from industry guidelines or expert advice.
- Add the amount of product specified in the Directions for Use Table for each 100 L of water. Spray to the point of run-off.
- The required dilute spray volume will change and the sprayer set up and operation may also need to be changed as the crop grows.

Tree and Vine Crops – Concentrate Spraying:

- Use a sprayer designed and set up for concentrate spraying (that is: a sprayer which applies water volumes less than those required to reach the point of run-off) and matched to the crop being sprayed.
- Set up and operate the sprayer to achieve even coverage throughout the crop canopy using your chosen water volume.
- Determine an appropriate dilute spray volume (See Dilute Spraying above) for the crop canopy. This is needed to calculate the concentrate mixing rate.
- The mixing rate for concentrate spraying can then be calculated in the following way:

EXAMPLE ONLY:

1. Dilute spray volume as determined above. For example: 1500 L/ha
 2. Your chosen concentrate spray volume: For example: 500 L/ha
 3. The concentration factor in this example is: 3X (ie: $1500 \text{ L} \div 500 \text{ L} = 3$)
 4. If the dilute label rate is 100 g/100 L, then the concentrate rate becomes 3 x 100, that is, 300 g/100 L of concentrate spray.
- The chosen spray volume, amount of product per 100 L of water, and the sprayer set up and operation may need to be changed as the crop grows.
 - For further information on concentrate spraying, users are advised to consult relevant industry guidelines, undertake appropriate competency training and follow industry Best Practices.

For concentrate application, use a spray volume of at least 200 litres per hectare.

For dilute application, apply to run-off. See Dilute Spraying above.

Non-tree and vine crops – Ground Application:

Apply as a fine spray preferably generated by cone nozzles. **DO NOT** apply as a fog or mist. For effective insect control, proper timing and good coverage are essential. Use sufficient water to obtain thorough uniform coverage. Use 100-400 L/ha spray mixture unless otherwise directed in the Directions for Use section.

Aerial Application:

For ADZUKI BEANS, CANOLA, COTTON, LINSEED, LUCERNE, LUPINS, MUNG BEANS, PASTURE, PEANUTS, PEAS, SORGHUM, SOYBEANS, SUNFLOWERS, TOMATOES AND WINTER CEREALS:

Spray volumes:

For rates less than 1.5 L/ha: Dilute to any convenient volume no less than 1.5 L/ha.

For rates of 1.5 L/ha and higher: apply undiluted or diluted to give any convenient volume.

Droplet Sizes:

When applying at ULTRA LOW VOLUMES (ie: volumes less than 5 L/ha): use a spray of 80-120 μm VMD.

When applying at LOW VOLUMES (ie: volumes greater than 5 L/ha): use a fine spray (100-150 μm VMD).

To reduce drift and optimise results, avoid application in calm conditions and apply in light to moderate crosswinds.

INSECTICIDE RESISTANCE WARNING

GROUP 1A INSECTICIDE

For insecticide resistance management, Sinmas[®] 225 Insecticide is a Group 1A Insecticide. Some naturally occurring insect biotypes resistant to Sinmas[®] 225 Insecticide and other Group 1A insecticides may exist through normal genetic variability in any insect population. The resistant individuals can eventually dominate the insect population if Sinmas[®] 225 Insecticide or other Group 1A insecticides are used repeatedly. The effectiveness of Sinmas[®] 225 Insecticide on resistant individuals could be significantly reduced. Since the occurrence of resistant individuals is difficult to

detect prior to use, Sinon Australia Pty Limited accepts no liability for any losses that may result from the failure of Sinmas[®] 225 Insecticide to control resistant insects. Sinmas[®] 225 Insecticide may be subject to specific resistance management strategies. For further information, contact your local supplier, Sinon Australia Pty Limited representative or local agriculture department agronomist.

COMPATIBILITY

Sinmas[®] 225 Insecticide is compatible with a wide range of pesticides in common use.

CAUTION

Keep unprotected persons out of operational area during treatment and while there is a danger of drift. Avoid contact with spray residues. Keep container closed when not in use.

Re-entry Period

Keep unprotected persons out of treated area for at least 24 hours.

PROTECTION OF CROPS, LIVESTOCK, WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

Keep animals out of operational area during treatment and while there is a danger of drift.

Dangerous to bees. DO NOT spray on any plants in flower while bees are foraging. ENSURE beehives are removed from area to be treated and from adjacent paddocks.

This product is toxic to wildlife. Birds feeding on treated areas may be killed.

Dangerous to fish. DO NOT contaminate fish ponds, dams, rivers or streams with this chemical or the used container.

STORAGE AND DISPOSAL

Store in the closed, original container in a dry, cool, well-ventilated area out of direct sunlight. **DO NOT** contaminate seed, feed or foodstuff. **DO NOT** re-use container for any purpose.

This container can be recycled if it is clean, dry, free of visible residues and has the *drumMUSTER* logo visible. Triple or preferably pressure rinse containers before disposal. Dispose of rinsate by adding it to the spray tank. **DO NOT** dispose of undiluted chemicals on site. Wash outside of the container and the cap. Store cleaned container in a sheltered place with cap removed. It will then be acceptable for recycling at any *drumMUSTER* collection point or similar container management program site. The cap should not be replaced but may be taken separately.

If not recycling, break, crush, or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the empty containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

SAFETY DIRECTIONS

Very dangerous, particularly the concentrate. Product and spray are poisonous if absorbed by skin contact, or inhaled or swallowed. Attacks eyes. Will irritate the nose, throat and skin. Repeated minor exposure may have a cumulative poisoning effect. Avoid contact with eyes, skin and clothing.

DO NOT inhale vapour or spray mist. Protect eyes while using. Obtain an emergency supply of atropine tablets 0.6 mg.

When opening the container and preparing the spray, wear elbow-length PVC gloves and face shield.

When using the prepared spray, wear:

- cotton overalls buttoned to the neck and wrist;
- washable hat;
- elbow-length PVC gloves;
- impervious footwear; and
- half face-piece respirator with combined dust and gas cartridge (canister).

If clothing becomes contaminated with product or wet with spray, remove clothing immediately. If product or spray on skin, immediately wash area with soap and water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, face shield, respirator (if rubber, wash with detergent and warm water) and contaminated clothing.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia: 131126).

If swallowed, give one atropine tablet every 5 minutes until dryness of the mouth occurs. If poisoned by skin absorption or through lungs, remove any contaminated clothing, wash skin thoroughly and give atropine tablets as above.

Get to a doctor or hospital quickly.

ADVICE TO DOCTOR

Methomyl produces effects associated with anti-cholinesterase activity. Atropine sulphate should be used for treatment. Administer repeated doses 1.2 to 2.0 mg intravenously every 10-30 minutes until full atropinization is achieved. **DO NOT** use morphine or 2-PAM. Maintain atropinization until the patient recovers. Artificial respiration or oxygen may be necessary. Allow no further exposure to any cholinesterase inhibitors until recovery is assured.

SAFETY DATA SHEET (SDS)

Additional information is listed in the SDS, which is available from the supplier.

NOTICE TO BUYER

Seller warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label when used in accordance with directions under normal conditions of use. No warranty of merchantability for a particular purpose, express or implied, extends to the use of the product contrary to label instructions, or under abnormal conditions.

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**CARBAMATE PESTICIDES,
LIQUID, FLAMMABLE, TOXIC, N.O.S,
flash point less than 23°C
(CONTAINS METHOMYL AND METHANOL)**



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