

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



# Nudrin® 225

## INSECTICIDE

Active Constituent: 225 g/L METHOMYL (an anti-cholinesterase compound)  
Solvent: 138 g/L METHANOL

For the control of certain insect pests  
as per the DIRECTIONS FOR USE table.

## 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.
1. **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.
  2. **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**

(i.e. volumes less than 5 L/ha):

use a spray of 80-120 µm VMD.

**When applying at LOW VOLUMES**

(i.e. 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

For insecticide resistance management NUDRIN 225

**GROUP 1A INSECTICIDE**

Insecticide is a Group 1A Insecticide. Some naturally occurring insect biotypes resistant to NUDRIN 225 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 NUDRIN 225 or other group 1A insecticides are used repeatedly. The effectiveness of NUDRIN 225 on resistant individuals could be significantly reduced.

Since occurrence of resistant individuals is difficult to detect prior to use, BASF Australia Ltd accepts no liability for any losses that may result from the failure of NUDRIN 225 to control resistant insects.

NUDRIN 225 may be subject to specific resistance management strategies. For further information contact your local supplier, BASF Australia Ltd representative or local agriculture department agronomist.

## COMPATIBILITY

NUDRIN 225 Insecticide is compatible with a wide range of pesticides in common use, eg HALLMARK® 10 ULV, Endosan+ 240 ULV, Thiodan+ ULV, Endosulfan ULV and Endosulfan ULV240.

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## CAUTION

Keep unprotected persons out of operational area during treatment and while there is a danger of drift. Avoid contact with spray residues.

Keep unprotected persons out of treated area for at least 24 hours. Keep container closed when not in use.

## 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 cool, well-ventilated area. Do NOT store for prolonged periods in direct sunlight. Do NOT dispose of undiluted chemicals on-site.

The method of disposal of the container depends on the container type. Read the "Storage and Disposal" instructions on the label that is attached to the container.

## 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 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 facepiece 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. Telephone 131126 Australia-wide.

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.

## NOTE TO PHYSICIAN

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.

## MSDS

Additional information is listed in the Material Safety Data Sheet.



**CONDITIONS OF SALE:** All conditions and warranties rights and remedies implied by law or arising in contract or tort whether due to the negligence of BASF Australia Ltd or otherwise are hereby expressly excluded so far as the same may legally be done provided however that any rights of the Buyer pursuant to non excludable conditions or warranties of the Trade Practices Act 1974 or any relevant legislation of any State are expressly preserved but the liability of BASF Australia Ltd or any intermediate Seller pursuant thereto shall be limited if so permitted by the said legislation to the replacement of the goods sold or the supply of equivalent goods and all liability for indirect or consequential loss or damage of whatsoever nature is expressly excluded. This product must be used or applied strictly in accordance with the instructions appearing hereon. This product is solely sold for use in Australia and must not be exported without the prior written consent of BASF Australia Ltd.

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<b>EMERGENCY INFORMATION PANEL</b>	
<b>CARBAMATE PESTICIDES, LIQUID, FLAMMABLE, TOXIC, N.O.S, flash point less than 23°C (CONTAINS METHOMYL AND METHANOL)</b>	
UN NO. 2758 PG II HAZCHEM 3WE	
	
IN A TRANSPORT EMERGENCY <b>DIAL: 000</b> POLICE OR FIRE BRIGADE	
FOR SPECIALIST ADVICE IN AN <b>EMERGENCY ONLY</b> <b>PHONE 1 800 033 111</b> TOLL FREE – ALL HOURS – AUSTRALIA-WIDE	

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**DIRECTIONS FOR USE**

<b>CROP</b>	<b>PEST</b>	<b>STATE</b>	<b>RATE</b>	<b>WHP</b>	<b>CRITICAL COMMENTS</b>
<b>BROADACRE CROPS:</b> Beans – broad beans, French beans, navy beans	Beanfly ( <i>Ophiomyia phaseoli</i> )	Qld, NT only	100 mL/ 100 L	1 day (Harvest)	Apply 3 days after seedlings emerge then 4 days later. Repeat at weekly intervals until blossoming.
	<i>Thrips</i> spp.				Apply when infestation reaches an economically damaging level and repeat if necessary. Spray to penetrate blossoms.
	Looper ( <i>Chrysodeixis subsidens</i> )		1.5 L/ha		
	Green vegetable bug ( <i>Nezara viridula</i> )				
	<i>Helicoverpa</i> spp.	Qld, Tas, WA, NT only	<b>Larvicide:</b> 1.5 to 2 L/ha		<b>Larvicide:</b> Apply when infestation reaches an economically damaging level and repeat if necessary. Spray to penetrate blossoms. (Refer to Larvicidal Application Instructions for more detail). <b>Ovicide/Larvicide:</b> Refer to Ovicidal/Larvicidal Application Instructions.
	Corn earworm ( <i>Helicoverpa armigera</i> )	Qld, NT only	<b>Ovicide/ Larvicide:</b> 500 mL to 1 L/ha		
Beans (see above) and legume seed crops	Bean pod borer ( <i>Maruca testulalis</i> )	Qld, NT only	1.5 to 2 L/ha	1 day (Harvest)	Apply when infestation reaches an economically damaging level and repeat if necessary. Spray to penetrate blossoms. (Refer to Larvicidal Application Instructions for more detail).
Canola	<i>Helicoverpa</i> spp.	WA only	1 L/ha	7 days (Harvest)	<b>Larvicide:</b> Apply when infestation reaches an economically damaging level and repeat if necessary. (Refer to Larvicidal Application Instructions for more detail).
		NSW, Vic, Tas, SA only	1.5 to 2 L/ha		
		NSW only	500 mL to 1 L/ha	<b>Ovicide/Larvicide:</b> Refer to Ovicidal/Larvicidal Application Instructions.	
Cotton	<i>Helicoverpa</i> spp.	Qld, NSW only	500 mL to 1 L/ha plus a non-ionic surfactant at registered label rates	–	Do NOT graze or feed treated crops to animals. <b>Ovicide/Larvicide:</b> 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 3 mm in length and they are exposed. Continue applications on this basis at 4-5 day intervals. When larvae longer than 3 mm are present or when larvae are entrenched, add an effective larvicide at recommended rates, or apply the higher rates of this product recommended below.

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
Cotton (continued)	<i>Helicoverpa</i> spp.	Qld, NSW only	1.8 to 2.4 L/ha	–	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.
	Looper ( <i>Chrysodeixis subsidents</i> )	Qld only			Apply when infestation reaches an economically damaging level and repeat if necessary.
Lentils	<i>Helicoverpa</i> spp.	NSW only	1.5 to 2 L/ha	1 day (Harvest)	Examine crops at least twice weekly during flowering to podding for larvae and their damage. Use the higher rate if the infestation is heavy.
Linseed	<i>Helicoverpa</i> spp.	Qld only	1.5 to 2 L/ha	7 days (Harvest)	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).
Lucerne (grazing, hay and seed)	<i>Helicoverpa</i> spp.	WA only	1 to 2 L/ha	3 days (Grazing)	Apply when infestation reaches an economically damaging level and repeat if necessary. (Refer to Larvicidal Application Instructions for more detail).
		Qld, NSW, 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 (Harvest)	Larvicide: Apply when infestation reaches an economically damaging level and repeat if necessary. (Refer to Larvicidal Application Instructions for more detail).
		Qld, NSW, WA only	1.5 to 2 L/ha		
			500 mL to 1 L/ha		
Maize	<i>Helicoverpa</i> spp.	Qld, NSW, NT only	<b>HIGH VOLUME:</b> 150 to 200 mL /100 L or <b>LOW VOLUME:</b> 1.5 to 2 L/ha	14 days (Harvest) 14 days (Grazing)	Larvicide: Apply initial spray at early silking or when eggs are first seen on silks. Repeat at 2-3 day intervals during silking if infestation continues. Use sufficient spray volume to thoroughly cover young developing cobs. <b>NSW only:</b> 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).

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
Maize (continued)	<i>Helicoverpa</i> spp.	Qld, NSW, NT only	<b>HIGH VOLUME:</b> 100 mL /100 L or <b>Low Volume:</b> 1 L/ha	14 days (Harvest) 14 days (Grazing)	<p><b>Ovicide:</b> 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.</p> <p>Apply when infestation reaches an economically damaging level and repeat if necessary. <b>Note:</b> As all armyworms except the dayfeeding armyworm feed mainly during the evening, spraying at dusk is recommended.</p>
	Armyworms ( <i>Pseudaletia convecta</i> , <i>Persectania ewingii</i> , <i>Persectania dyscrita</i> )	Qld, NSW, SA, WA, NT only	<b>LOW VOLUME:</b> 1.5 L/ha		
Mint, poppies	<i>Helicoverpa punctigera</i>	Tas only	1.5 to 2 L/ha	14 days (Harvest)	Apply when infestation reaches an economically damaging level and repeat if necessary. (Refer to Larvicidal Application Instructions for more detail).
Mung beans (seed production)	<i>Helicoverpa</i> spp.	Qld, NSW, NT only	1.5 to 2 L/ha	7 days (Harvest)	<p><b>Larvicide:</b> Apply when infestation reaches an economically damaging level and repeat if necessary. (Refer to Larvicidal Application Instructions for more detail).</p> <p><b>Ovicide/Larvicide:</b> Refer to Ovicidal/Larvicidal Application Instructions.</p>
		Qld only	500 mL to 1 L/ha		
	Green vegetable bug ( <i>Nezara viridula</i> )	Qld, NSW, NT only	1.5 L/ha		Apply when infestation reaches an economically damaging level and repeat if necessary. (Refer to Larvicidal Application Instructions for more detail).
	Bean pod borer ( <i>Maruca testulalis</i> )	Qld, NT only	1.5 to 2 L/ha		(Refer to Larvicidal Application Instructions for more detail).
Native pastures, improved pastures (alone or with legumes)	Common armyworm ( <i>Pseudaletia convecta</i> )	Vic only	1.5 to 2 L/ha	3 days (Grazing)	<p>Refer to Larvicidal Application Instructions for more detail. <b>Note:</b> As all armyworms except the dayfeeding armyworm feed mainly during the evening, spraying at dusk is recommended.</p> <p>Apply when infestation reaches an economically damaging level and repeat if necessary. Ensure thorough spray penetration to obtain effective control of the pest.</p>
	Armyworms ( <i>Pseudaletia convecta</i> , <i>Persectania ewingii</i> , <i>Persectania dyscrita</i> )	Qld, NSW, SA, WA only			
	Southern armyworm ( <i>Persectania ewingii</i> )	Tas only			
	Buffel grass seed caterpillar ( <i>Marpava rhodoneura</i> )	Qld only	1.75 L/ha		
Peanuts	<i>Helicoverpa</i> spp.	Qld, NT only	1.5 to 2 L/ha	14 days (Harvest)	Apply when infestation reaches an economically damaging level and repeat if necessary. (Refer to Larvicidal Application Instructions for more detail).

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
Peas (including chickpeas and pigeon peas)	<i>Helicoverpa</i> spp.	Qld, NSW, Vic, WA only	LOW VOLUME: 1.5 to 2 L/ha	Peas: 1 day (Harvest)  Chickpeas, pigeon peas: 7 days (Harvest)	Larvicide: Apply when infestation reaches an economically damaging level and repeat if necessary. (Refer to Larvicidal Application Instructions for more detail).
			LOW VOLUME: 500 mL to 1 L/ha		
	Looper ( <i>Chrysodeixis subsidens</i> )		LOW VOLUME: 1.5 L/ha		Apply when infestation reaches an economically damaging level and repeat if necessary.
	<i>Thrips</i> spp.		HIGH VOLUME: 100 mL/ 100 L or Low Volume: 1 L/ha		
Peas (including cowpeas and adzuki beans)	<i>Helicoverpa</i> spp.	NSW, SA only	1.5 to 2 L/ha	Peas: 1 day (Harvest)  Cowpeas, adzuki beans: 7 days (Harvest)	Larvicide: Apply when infestation reaches an economically damaging level and repeat if necessary. (Refer to Larvicidal Application Instructions for more detail).
			500 mL to 1 L/ha		
Pigeon peas, cowpeas, adzuki beans	Green vegetable bug ( <i>Nezara viridula</i> )	NSW only	1.5 L/ha	7 days (Harvest)	Apply when infestation reaches an economically damaging level and repeat if necessary.
Sesame seed	Corn earworm ( <i>Helicoverpa armigera</i> )	Qld, NT only	1.5 to 2 L/ha	14 days (Harvest)	Apply when infestation reaches an economically damaging level and repeat if necessary. (Refer to Larvicidal Application Instructions for more detail).
	Green vegetable bug ( <i>Nezara viridula</i> )		1.5 L/ha		
Sorghum					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 <i>Helicoverpa</i> .
	<i>Helicoverpa armigera</i>	Qld, NSW, WA, NT only	1.5 to 2 L/ha	14 days (Harvest)  14 days (Grazing)	Larvicide: Apply when infestation reaches an economically damaging level and repeat if necessary. (Refer to Larvicidal Application Instructions for more detail).
			500 mL to 1 L/ha		
Armyworms			1.5 L/ha		Apply when infestation reaches an economically damaging level and repeat if necessary. <b>Note:</b> As all armyworms except the dayfeeding armyworm feed mainly during the evening, spraying at dusk is recommended.

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
Sorghum (continued)	Sorghum midge ( <i>Contarinia sorghicola</i> )	Qld, NT only	1 L/ha	14 days (Harvest) 14 days (Grazing)	Apply when there are 1 or more sorghum midge adults per panicle or according to the threshold recommended by local agricultural authorities.
Soybeans	<i>Helicoverpa</i> spp.	Qld, NSW, NT only	1.5 to 2 L/ha	7 days (Harvest)	<b>Larvicide:</b> Apply when infestation reaches an economically damaging level and repeat if necessary. (Refer to Larvicidal Application Instructions for more detail).
			500 mL to 1 L/ha		
	Green vegetable bug ( <i>Nezara viridula</i> )	1.5 L/ha	Apply when infestation reaches an economically damaging level and repeat if necessary.		
	Looper ( <i>Chrysodeixis subsidens</i> )	Qld, NT only			
Sunflowers	Green vegetable bug ( <i>Nezara viridula</i> )	NSW only	1.5 to 2 L/ha	7 days (Harvest)	<b>Larvicide:</b> Apply when infestation reaches an economically damaging level and repeat if necessary. (Refer to Larvicidal Application Instructions for more detail). <b>Note:</b> Spray must be applied before the seed head turn over, to ensure adequate penetration and insect control.
		Qld only	1.5 L/ha		
	<i>Helicoverpa</i> spp.	NSW only	1.5 to 2 L/ha		
		Qld only	1.5 L/ha		
		SA only	2 L/ha		
		Qld, NSW, SA only	500 mL to 1 L/ha		
Wheat, oats, barley	Common armyworm ( <i>Pseudaletia convecta</i> ), southern armyworm ( <i>Persectania ewingii</i> )	NSW, Vic, Tas, SA, WA only	1 to 1.5 L/ha	14 days (Harvest) 14 days (Grazing)	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. <b>Note:</b> As all armyworms except the dayfeeding armyworm feed mainly during the evening, spraying at dusk is recommended.
		Qld only	1 L/ha aerial spray only		
	<i>Helicoverpa</i> spp.	Qld, Tas only	1.5 L/ha		
<b>FRUIT:</b> Apples					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.
	<i>Helicoverpa</i> spp.	Tas only	150 to 200 mL/100 L	1 day (Harvest)	Apply at calyx stage and repeat at 14 day intervals or as required depending on infestation. (Refer to Larvicidal Application Instructions for more detail).
	Light brown apple moth ( <i>Epiphyas postvittana</i> )	Vic, Tas, SA, WA only			

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CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
FRUIT: Apples (continued)					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.
	Light brown apple moth ( <i>Epiphyas postvittana</i> )	NSW only	150 mL/ 100 L	1 day (Harvest)	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.
	Codling moth ( <i>Cydia pomonella</i> )	NSW, Vic only			
	Plague thrips ( <i>Thrips imaginis</i> ), dimple bug ( <i>Campylomma livida</i> )	Qld only	200 mL/ 100 L		Apply when pest levels reach an economically damaging levels and repeat if necessary.
Blueberries	Monolepta beetle, <i>Helicoverpa</i> spp., plague thrips	NSW only	100 mL/ 100 L	5 days (Harvest)	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. <b>Monolepta beetle:</b> Apply according to pest incidence. <b>Helicoverpa spp.:</b> Apply when the infestation reaches an economically damaging level. <b>Plague thrips:</b> Apply when numerous on flowers.
Citrus	Spined citrus bug ( <i>Biprorulus bibax</i> ), bronze orange bug ( <i>Musgraveia sulciventris</i> )	Qld, Vic, SA only	<b>HIGH VOLUME:</b> 25 mL/ 100 L or <b>LOW VOLUME:</b> 250 mL/ha	2 days (Harvest)	Apply when the infestation reaches an economically damaging level but before bugs reach the adult winged stage.
	<i>Helicoverpa</i> spp.		<b>HIGH VOLUME:</b> 200 mL/ 100 L or <b>LOW VOLUME:</b> 2 L/ha		Spray only if heavy infestations occur on young foliage and fruit.
	Large citrus butterfly ( <i>Papilio aegeus aegeus</i> ), small citrus butterfly ( <i>Papilio anactus</i> )				In young trees only, apply to cover unhardened leaves from recent growth flushes when infestations are seen.



CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
Grapes	Light brown apple moth ( <i>Epiphyas postvittana</i> )	All States	150 mL/ 100 L	7 days (Harvest)	Apply during early shoot growth/ flowering if pest populations indicate. Apply again just before bunches close if L.B.A.M. is seen. Control at later stages if bunching is difficult.
	Vine moth ( <i>Phalaenoides glyciniae</i> )				Apply when infestation reaches an economically damaging level and repeat if necessary.
Peaches and nectarines	Green peach aphid ( <i>Myzus persicae</i> )	All States	100 mL/ 100 L	1 day (Harvest)	Apply when infestation reaches an economically damaging level and repeat if necessary.
	<i>Helicoverpa</i> spp.	Tas only	150 mL/ 100 L		Do NOT apply to early peach varieties or to stressed trees.
	Monolepta beetle	NSW only	100 mL/ 100 L		Apply to blossoms of affected trees where beetles are feeding. Apply from July to September when infestations occur.
Pears	Light brown apple moth ( <i>Epiphyas postvittana</i> )	Vic only	150 to 200 mL/100 L	2 days (Harvest)	Apply at calyx stage from late November onwards and repeat at 14 day intervals or as required depending on infestation.
Strawberries	<i>Helicoverpa</i> spp., cluster caterpillar ( <i>Spodoptera litura</i> ), looper ( <i>Chrysodeixis subsidens</i> )	Qld, NSW, NT only	<b>HIGH VOLUME:</b> 150 mL/ 100 L or <b>LOW VOLUME:</b> 1.5 L/ha	<b>Fresh:</b> 3 days (Harvest)  <b>Frozen:</b> 10 days (Harvest)	Apply when infestation reaches an economically damaging level and repeat if necessary. <b>Note:</b> To avoid the possibility of taint in strawberries to be frozen, do NOT apply later than 10 days before harvest.
Tomatoes	<i>Helicoverpa</i> spp.	All States	<b>HIGH VOLUME:</b> 50 to 100 mL/100 L or <b>LOW VOLUME:</b> 500 mL to 1 L/ha	1 day (Harvest)	<b>Ovicidal control only:</b> 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.
		NSW only	<b>HIGH VOLUME:</b> 200 mL/ 100 L or <b>LOW VOLUME:</b> 2 L/ha		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).
		Qld, Vic, Tas, SA, WA, NT only	<b>HIGH VOLUME:</b> 150 to 200 mL/100 L or <b>LOW VOLUME:</b> 1.5 to 2 L/ha		<b>GROUND APPLICATION</b> <b>Low Volume:</b> Use 150 L/ha spray mixture or higher without producing run off. <b>High Volume:</b> When applying at high volumes use 250 L/ha spray mixture at the start of flowering, increasing to 1000 L/ha on mature plants.

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
Tomatoes (continued)	Tobacco leaf miner/ potato moth ( <i>Phthorimaea operculella</i> )	Qld, NSW, NT only	<b>HIGH VOLUME:</b> 150 to 200 mL/100 L or <b>LOW VOLUME:</b> 1.5 to 2 L/ha	1 day (Harvest)	<b>GROUND APPLICATION</b> <b>Low Volume:</b> Use 150 L/ha spray mixture or higher without producing run off. <b>High Volume:</b> When applying at high volumes use 250 L/ha spray mixture at the start of flowering, increasing to 1000 L/ha on mature plants.
	Green vegetable bug ( <i>Nezara viridula</i> )	Qld, NT only	<b>HIGH VOLUME:</b> 150 mL/ 100 L or <b>LOW VOLUME:</b> 1.5 L/ha		<b>AERIAL APPLICATION</b> <b>Ultra Low Volume and Low Volume:</b> Refer to Application Instructions.
	Looper ( <i>Chrysodeixis subsidents</i> )	Qld, Tas, NT only	<b>LOW VOLUME:</b> 1.5 L/ha		
<b>VEGETABLES:</b> Brassicas – Brussels sprouts, cauliflower, broccoli, cabbages	Cabbage white butterfly ( <i>Pieris rapae</i> )	Qld, NT only	<b>HIGH VOLUME:</b> 100 mL/ 100 L or <b>LOW VOLUME:</b> 1 L/ha	1 day (Harvest)	Apply when infestation reaches an economically damaging level and repeat if necessary. Ensure adequate spray penetration to obtain effective control of the pests.
		NSW, Vic, Tas, SA, WA only	<b>LOW VOLUME:</b> 1 to 2 L/ha		Apply at 5-7 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).
	<i>Helicoverpa</i> spp.	Qld, Tas, NT only	<b>LOW VOLUME:</b> 1.5 to 2 L/ha		Apply when infestation reaches an economically damaging level and repeat if necessary. Ensure adequate spray penetration to obtain effective control of the pests.
	Cabbage centre grub ( <i>Hellula hydralis</i> )	Qld, NT only	<b>LOW VOLUME:</b> 1.5 L/ha		(Refer to Larvicidal Application Instructions for more detail).
	Cluster caterpillar ( <i>Spodoptera litura</i> )		<b>LOW VOLUME:</b> 1 L/ha		Apply when infestation reaches an economically damaging level and repeat if necessary. Ensure adequate spray penetration to obtain effective control of the pests.
	Looper ( <i>Chrysodeixis subsidents</i> )	Qld, NSW, Vic, Tas, WA, NT only	<b>LOW VOLUME:</b> 1.5 L/ha		
Capsicums (sweet peppers)	<i>Helicoverpa</i> spp.	Qld, NT only	<b>HIGH VOLUME:</b> 150 to 200 mL/100 L or <b>LOW VOLUME:</b> 1.5 to 2 L/ha	1 day (Harvest)	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).

# BASF

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
Lettuce	<i>Helicoverpa</i> spp.	Qld, NSW, Tas, NT only	<b>HIGH VOLUME:</b> 200 mL/ 100 L or <b>LOW VOLUME:</b> 2 L/ha	1 day (Harvest)	Apply when infestation reaches an economically damaging level and repeat if necessary. For high volume spraying, use at least 1000 L/ha of spray mixture. Do NOT use chemicals from the same group on consecutive sprays.
	Cluster caterpillar ( <i>Spodoptera litura</i> )	Qld, NSW, NT only	<b>HIGH VOLUME:</b> 100 mL/ 100 L or <b>LOW VOLUME:</b> 1 L/ha		
Potatoes	Potato moth ( <i>Phthorimaea operculella</i> )	All States	1.5 to 2 L/ha	–	Apply when infestation reaches an economically damaging level and repeat if necessary. (Refer to Larvicidal Application Instructions for more detail).
	Looper ( <i>Chrysodeixis subsidens</i> )	Qld only	1.5 L/ha		
Sweetcorn	<i>Helicoverpa</i> spp.	All States	<b>HIGH VOLUME:</b> 150 to 200 mL/100 L or <b>LOW VOLUME:</b> 1.5 to 2 L/ha	1 day (Harvest) 3 days (Grazing)	<b>Larvicide:</b> Apply initial spray at early silking or when eggs are first seen on silks. Repeat at 2-3 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).
		Qld, Vic, Tas, SA, WA, NT only	<b>HIGH VOLUME:</b> 100 mL/ 100 L or <b>LOW VOLUME:</b> 1 L/ha		
<b>OTHER:</b> Duboisia	Cluster caterpillar ( <i>Spodoptera litura</i> )	Qld only	<b>HIGH VOLUME:</b> 100 mL/ 100 L or <b>LOW VOLUME:</b> 1 L/ha	–	Apply when infestation reaches an economically damaging level and repeat if necessary.
Ginger	<i>Helicoverpa</i> spp.	Qld only	<b>HIGH VOLUME:</b> 150 mL/ 100 L or <b>LOW VOLUME:</b> 1.5 L/ha	–	Apply when the pest is evident or damage is seen in young shoots at ground level during early growth.
Guar	Green vegetable bug ( <i>Nezara viridula</i> ), podsucking bug ( <i>Riptortus serripes</i> )	Qld only	2 L/ha	7 days (Harvest)	Apply when infestation reaches an economically damaging level and repeat if necessary.

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS												
Hops	<i>Helicoverpa punctigera</i>	Tas only	2 L/ha	14 days (Harvest)	Do NOT graze treated crops. Apply when infestation reaches an economically damaging level and repeat if necessary.												
Teatree ( <i>Melaleuca alternifolia</i> )	Xylorctid caterpillar, psyllid, leafhopper, crysomelid beetle	NSW only	1.5 to 2 L/ha	–	Apply as a thorough foliar spray.												
Tobacco	Tobacco budworm ( <i>Helicoverpa armigera</i> )	Qld, Vic only	50 mL/100 L	3 days (Harvest)	<b>Ovicide:</b> 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.												
	Cluster caterpillar ( <i>Spodoptera litura</i> ), tobacco looper ( <i>Chrysodeixis argentifera</i> ), Tobacco leaf miner ( <i>Phthorimaea operculella</i> )	Qld, NSW, Vic only	100 mL/100 L		<b>Larvicide:</b> Use this rate if larvae are present. <b>Spray Volumes:</b> Spray volumes should be increased with plant size/age. The following volumes are recommended. Frequency of application will depend upon pest incidence.												
	Tobacco thrip ( <i>Hemianaphothrips concinnus</i> ), leafhopper, green vegetable bug ( <i>Nezara viridula</i> )	Qld only			<table border="1"> <thead> <tr> <th>Plant Age: time after transplanting</th> <th>Recommended Spray Volume L/ha</th> </tr> </thead> <tbody> <tr> <td>1-3 weeks</td> <td>250</td> </tr> <tr> <td>4 weeks</td> <td>300</td> </tr> <tr> <td>5 weeks</td> <td>450</td> </tr> <tr> <td>6 weeks</td> <td>550</td> </tr> <tr> <td>More than 6 weeks</td> <td>900-1100</td> </tr> </tbody> </table>	Plant Age: time after transplanting	Recommended Spray Volume L/ha	1-3 weeks	250	4 weeks	300	5 weeks	450	6 weeks	550	More than 6 weeks	900-1100
	Plant Age: time after transplanting	Recommended Spray Volume L/ha															
	1-3 weeks	250															
	4 weeks	300															
	5 weeks	450															
	6 weeks	550															
	More than 6 weeks	900-1100															
	Stubby root nematode ( <i>Trichodorus S.L.</i> )	Vic only	20 L/ha		Spray onto soil and incorporate to a depth of 10 cm just prior to transplanting.												
Tobacco stemborer ( <i>Scrobipalpa heliopa</i> )	Qld, NSW only	100 mL/100 L		Apply 10 days after seedlings emerge and repeat at 6 day intervals (7 day intervals NSW only) until transplanting.													
Cutworm ( <i>Agrotis spp.</i> )	Qld only	150 mL/100 L		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.													
True and false wireworms		200 mL/100 L															
Grasshoppers		1.5 L/ha		Apply to fully grown plants when damaging pest numbers first appear and repeat if necessary.													
Seed harvesting ants (seed bed only) ( <i>Pheidole spp.</i> )		200 mL/100 L		<b>Seed Bed Only:</b> Apply by pouring directly down the ant hole.													
Common brown leafhopper ( <i>Orosius argentatus</i> ) (vector for tobacco yellow dwarf virus)	Vic only	Use 45 mL/100 L in transplant water. Six weeks later apply 450 mL/100 L as an overall spray.															

**NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION.**

**IN TASMANIA, THIS PRODUCT MUST NOT BE APPLIED BY AIRCRAFT WITHOUT THE SPECIFIC APPROVAL OF THE REGISTRAR OF PESTICIDES.**

**WITHHOLDING PERIODS:**

***HARVEST***

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

DO NOT HARVEST FOR 1 DAY AFTER APPLICATION.

CITRUS, PEARS:

DO NOT HARVEST FOR 2 DAYS AFTER APPLICATION.

STRAWBERRIES (FRESH), TOBACCO:

DO NOT HARVEST FOR 3 DAYS AFTER APPLICATION.

BLUEBERRIES:

DO NOT HARVEST FOR 5 DAYS AFTER APPLICATION.

CANOLA, CHICKPEAS, GRAPES, GUAR, LINSEED, LUPINS, MUNG BEANS, PIGEON PEAS, SOYBEAN,

SUNFLOWERS:

DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION.

STRAWBERRIES (FOR FREEZING):

DO NOT HARVEST FOR 10 DAYS AFTER APPLICATION.

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

DO NOT HARVEST FOR 14 DAYS AFTER APPLICATION.

***GRAZING:***

COTTON:

DO NOT GRAZE OR FEED TREATED CROPS TO ANIMALS.

HOPS:

DO NOT GRAZE TREATED CROPS.

LUCERNE, PASTURES, SWEETCORN:  
APPLICATION.

DO NOT GRAZE OR CUT FOR STOCKFOOD FOR 3 DAYS AFTER

BARLEY, MAIZE, OATS, SORGHUM, WHEAT:

DO NOT GRAZE OR CUT FOR STOCKFOOD FOR 14 DAYS AFTER  
APPLICATION.

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