

# POISON

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



# Lorsban\* 500 EC

## Insecticide

ACTIVE CONSTITUENT: 500 g/L CHLORPYRIFOS (an anticholinesterase compound)  
SOLVENT: 495 g/L LIQUID HYDROCARBON

**GROUP 1B INSECTICIDE**

For the control of certain insect pests of fruit, vegetables, field crops, pasture and other situations as specified in the Directions For Use.

**THIS PRODUCT IS TOO HAZARDOUS FOR USE BY HOUSEHOLDERS.  
HOUSEHOLDERS MUST NOT USE THIS PRODUCT AROUND THE HOME.**

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## DIRECTIONS FOR USE

### FRUIT and VEGETABLES

CROP	INSECT	STATE	RATE		WITHHOLDING PERIODS	CRITICAL COMMENTS
			VOL/HA	VOL/100 L WATER		
Apples Pears	San Jose scale	Qld, NSW, SA, WA only	Not applicable	100 mL (2% miscible winter oil may be added to the dormant spray)	14 days	<b>Dormant period:</b> Apply as late as possible ensuring thorough coverage of all branches. <b>Seasonal period:</b> Apply to coincide with crawler activity in mid-late November and later as necessary. Ensure thorough coverage of all branches, foliage and fruit.
	Woolly aphid					Apply when infestation build-up is first noticed ensuring thorough coverage.
	Wingless grasshopper	NSW only	500 mL	50 mL		Apply to areas of crop infested with grasshoppers. Also apply as a barrier across the line of advance, when grasshoppers are invading the crop.
Avocado	Avocado leafroller Ivy leafroller	Qld only	1 or 2 L	50 or 100 mL	7 days	Use this rate in tank mix with 1 L/ha (500 mL/100 L of water) of dichlorvos (500 g/L). For low volume spray equipment use L/ha rate. Apply at first sign of pest activity before larvae move to fruit. Use higher rate when populations are high.
	Ivy leafroller	NSW only				Apply at first sign of pest activity before larvae move to fruit. Use higher rate when populations are high. For low volume spray equipment use L/ha rate.
	Latania scale Hairy caterpillars Light brown apple moth Redshouldered leaf beetle					Apply when populations indicate treatment is required. Spot spray affected trees only. Repeat as necessary. Use higher rate when populations are high.
Bananas	Banana scab moth	Qld only	<b>Aerial:</b> 1 or 2 L in a minimum of 10 L water	200 mL Apply a minimum of 500 L water/ha	14 days	Apply from the first appearance of flower bell and repeat as populations indicate until fingers are exposed. Use high rate with onset of wet weather and/or heavy insect pressure. <b>Note:</b> Burning of young fruit may occur under poor drying conditions.
	Banana weevil borer	Qld, NSW only	Not applicable	1 or 1.8 L		After removal of trash, apply 500-700 mL of spray depending on butt size, to the lower 30 cm of the butt and to the surrounding soil within a radius of 30 cm, ensuring thorough coverage of butt and suckers. <b>Sub-tropical areas:</b> Use high rate for annual control of borers. <b>Tropical areas:</b> Use high rate in September-November for initial spray and a follow-up with low rate in February-April should insect presence warrant a second application.
	Caterpillars	NSW only	Not applicable	200 mL		Apply from the first appearance of flower bell and repeat as populations indicate until fingers are exposed. Use as ground application only, do not apply by air.

FRUIT and VEGETABLES (continued)

CROP	INSECT	STATE	RATE		WITHHOLDING PERIODS	CRITICAL COMMENTS
			VOL/HA	VOL/100 L WATER		
Carrots	Lightbrown apple moth	NSW, WA only	500 or 700 mL	Not applicable	Not applicable	Apply when moths are first detected. Repeat at the higher rate if there is a re-occurrence of infestation.
Cassava	Cutworms	Qld only	700 mL			Apply to seedlings and soil at base of seedlings, when cutworm activity is observed.
Citrus	California red scale	NSW, Vic, SA, WA only	Not applicable	100 mL alone or 50 mL + 1 L miscible summer spraying oil	14 days	Apply during November-March period. Two sprays may be required under conditions of heavy scale infestation. Apply with high volume sprayer to point of runoff. <b>Note:</b> Do not use on citrus in areas where integrated control programmes are in operation.
		Qld only		100 mL alone or 100 mL + 1 L miscible summer spraying oil		
Citrus Pome fruit	Wingless grasshopper	Vic, Tas, SA only	500 mL	50 mL		Spray areas of crop infested with grasshoppers. Also apply as a barrier across the line of advance, when grasshoppers are invading the crop.
Cole crops including: Cabbage Cauliflower Brussels sprouts Broccoli	Cabbage moth Cabbage white butterfly Cabbage aphid Cluster caterpillar Cabbage cluster caterpillar	NSW, Vic, Tas, SA, WA only	1.5 or 2 L	150 or 200 mL	5 days	Spray at 10 to 14 day intervals. Use high rate under heavy pest pressure. <b>Large plants:</b> Use 1000 L of spray/ha. To improve spray coverage add non-ionic wetting agents as recommended.
	Corn earworm Native budworm	Qld only	1.5 L	150 mL		Apply when pests first appear. <b>Large plants:</b> Use 1000 L of spray/ha.
	Corn earworm Native budworm	NSW, Vic, SA, WA only	1.5 or 2 L	150 or 200 mL		Apply at 10 to 14 day intervals. Use high rate under heavy pest pressure. <b>Large plants:</b> Use 1000 L of spray/ha.
	Native budworm	NSW, Vic, Tas, SA, WA only				Apply at 10 day intervals commencing when pests first appear. Apply at 7 day intervals under heavy pest pressure. <b>Large plants:</b> Use 1000 L/ha.
	Wingless grasshopper	NSW, Vic, Tas, SA only	500 mL	50 mL		Spray areas of crop infested with grasshoppers. Also apply as a barrier across the line of advance, when grasshoppers are invading the crop.
	Redlegged earth mite Blue oat mite	NSW only	140 or 300 mL	Not applicable		Use higher rate for severe infestations. Headlands and vegetation surrounding the crop may also need to be sprayed.
Cabbage Cauliflower	African black beetle	NSW only	2 L (Boom spray)	300 mL (Drench)	5 days	<b>Boom spray:</b> Apply in 500 - 1000 L of water/ha at or soon after planting as a 10 - 15 cm band spray. <b>Drench:</b> Apply 100 mL of diluted spray to base of each plant. Treat as soon as the first signs of infestation are observed. <b>Note:</b> If attack is prolonged follow up boom spray or drench treatment may be necessary.

**FRUIT and VEGETABLES (continued)**

CROP	INSECT	STATE	RATE		WITHHOLDING PERIODS	CRITICAL COMMENTS
			VOL/HA	VOL/100 L WATER		
Cucurbits	White flies	NSW only	Not applicable	50 mL /100 L of water	5 days	Apply when pest is first detected. If required repeat applications every 10 to 14 days.
Ginger	Cutworms	Qld only	700 - 900 mL	Not applicable	Not applicable	Apply when pest population is evident from damage to the primary shoot at or below ground, or to the first leaf during growth.
Grape vines	Light brown apple moth	All States	500 mL	50 mL	14 days	Apply initial spray just after berry set (early October). Later schedule sprays should be made as required.
	Grapevine moth	Qld, NSW only				Apply as a dormant spray, post-pruning (July).
	Grapevine scale	Tas, SA, WA only	Not applicable	100 mL alone or 50 mL + 1 L miscible winter oil		
Kiwi fruit	Common armyworm Southern armyworm Lightbrown apple moth	NSW, Vic, WA, SA, Tas, Qld only	1 L	50 mL		Apply at green tip at least 10 days after dormant lime sulphur application and pre-blossom. Do not apply post blossom.
Mango	Common mango scale	Qld only	Not applicable	100 mL	21 days	Apply to coincide with crawler activity. Ensure thorough coverage of all branches, foliage and fruit.
Pineapples	Pineapple mealybug Ants	Qld only	Not applicable	50 or 100 mL	Not applicable	Apply when pests are first seen and repeat at 90 day intervals or as necessary. Use a minimum of 3000 L of spray/ha. Use higher rate under heavy pest pressure.
	White grubs		5 L	Not applicable		Apply as a pre-plant spray to a freshly cultivated soil surface. Incorporate immediately by rotary hoeing to a depth of 10-20 cm.
Potatoes	African black beetle	NSW, WA only	3 or 6 L	Not applicable	Not applicable	Apply the spray to the soil immediately prior to planting, ensuring thorough immediate incorporation to a depth of 15 cm. Use higher rate under heavy pest pressure.
			900 mL			Apply as a second spray as bands on either side of plants at final hilling-up. Ensure good incorporation of the spray immediately into the soil in the hill.
	Whitefringed weevil	NSW, Vic, WA only	6 L	Apply pre-plant and incorporate into the soil immediately after application		
		WA, NSW only	1 L	Apply at hilling-up or 7 weeks after planting as a follow-up to pre-plant incorporation.		
	Wireworms	Vic only	6 L	Apply as a band spray to the soil surface incorporating immediately. Use before planting in areas where wireworms are a known problem.		
Silver beet	Redlegged earth mite Blue oat mite	NSW only	140 or 300 mL		Use higher rate for severe infestations. Headlands and vegetation surrounding the crop may also need to be treated.	

FRUIT and VEGETABLES (continued)

CROP	INSECT	STATE	RATE		WITHHOLDING PERIODS	CRITICAL COMMENTS
			VOL/HA	VOL/100 L WATER		
Stone fruit (excluding cherries)	European earwig	NSW only	2 L	100 mL	14 days	<b>Spray application:</b> Apply in a minimum of 2000 L/ha in spring. If lower volume used increase concentration to apply 2 L of product/ha.
			200 mL + 250 mL sunflower oil/5 kg cracked wheat or cracked sorghum bait			<b>Bait application:</b> Apply 5 kg of bait/ha in spring by fertiliser spreader. See GENERAL INSTRUCTIONS on preparation of cracked wheat or cracked sorghum bait.
	San Jose scale	Qld, WA, NSW only	Not applicable	100 mL (2% miscible winter oil may be added to the dormant spray)		<b>Dormant period:</b> Apply as late as possible ensuring thorough coverage of all branches. <b>Seasonal period:</b> Apply to coincide with crawler activity in mid-late November and later if necessary. Ensure thorough coverage of all branches, foliage and fruit. <b>Note:</b> Some fruit marking may occur if high volume spraying is carried out under hot, dry conditions.
Strawberries	Field crickets Mole crickets	Qld only	100 mL/ 10 kg bran bait/ha	Not applicable	Not applicable	Apply in recently ratooned strawberry patches or newly planted runners when damage or pest populations indicate. Broadcast, preferably in the late afternoon, to base of plants and inter-row space. See GENERAL INSTRUCTIONS on preparation of bran baits.
Tomatoes	Tomato grubs	Qld, NSW, Vic, WA only	1.5 or 2 L	150 or 200 mL	3 days	Spray on 7 to 10 day schedule commencing at flowering. Use high rate under heavy pest pressure.
	Native budworm	Tas only				Spray at first sign of bug activity. Use higher rate under heavy pest pressure.
	Green vegetable bug	Tas, SA, WA only				Spray when aphids are seen. <b>Large plants:</b> Use 1000 L/ha
	Green peach aphid	Qld, Vic, Tas, SA, WA only	1 L	100 mL	Spray areas of crop infested with grasshoppers. Also apply as a barrier across the line of advance, when grasshoppers are invading the crop.	
	Wingless grasshopper	NSW, Vic, Tas, SA only	500 mL	50 mL	Not applicable	Apply as a band at least 10 cm wide into the open furrow at planting. Spray the entire furrow width using a nozzle directly behind the planting tyne. Use a minimum spray volume of 20 L/ha. See GENERAL INSTRUCTIONS on soil application.
	Wireworm False wireworm	Qld only	5 L/ha sprayed	Not applicable		<b>Boom spray:</b> Apply in 500-1000 L of water/ha at or soon after planting as a 10-15 cm band spray. <b>Drench:</b> Apply 100 mL of diluted spray to base of each plant. Treat as soon as first sign of infestation is noticed. <b>Note:</b> If attack is prolonged follow up boom spray or drench treatment may be necessary.
	African black beetle	NSW only	2 L (Boom spray)	300 mL (Drench)		

**FRUIT and VEGETABLES (continued)**

CROP	INSECT	STATE	RATE		WITHHOLDING PERIODS	CRITICAL COMMENTS
			VOL/HA	VOL/100 L WATER		
Vegetables Including; Asparagus Beans Beetroot Broccoli Brussels sprouts Cabbage Cauliflower Capsicum Carrot Celery Eggplant Onion Peas Potato Radish Rhubarb Shallot Sweet potato Tomato Turnip	Wingless grasshopper	NSW, Vic, Tas only	500 mL	50 mL	<b>Tomatoes</b> 3 days	Spray areas of crop infested with grasshoppers. Also apply as a barrier across the line of advance, when grasshoppers are invading the crop.
	Cutworms	All States	700 mL	70 mL	<b>Coie crops</b> 5 days	Apply immediately infestation is observed. Increase concentration to compensate if application is below 1000 L/ha. Spray should cover soil out to at least 20 cm on both sides of row crop.
	Field crickets Mole crickets	Qld only	100 mL /10 kg bran bait/ha	Not applicable		Apply as pest populations indicate. See GENERAL INSTRUCTIONS on preparation of bran baits.
	Vegetable weevil	NSW only	800 mL	Not applicable	<b>Asparagus</b> 14 days  <b>Celery</b> 14 days	Apply immediately infestation is observed. Apply as a band over the young plants and adjacent soil along the row. One treatment should be sufficient if plants are sprayed at the seedling stage or soon afterwards.

**FIELD CROPS and PASTURES**

CROP	INSECT	STATE	VOL/HA	WITHHOLDING PERIODS	CRITICAL COMMENTS
Cereals Pasture Forage crops	Southern armyworm Common armyworm	All States	700 or 900 mL	<b>Cereals</b> 10 days  <b>Grazing</b> 2 days	Spray over total crop area when infestation is widespread. When pests are moving as an "army" treat a broad strip over and in advance of the infestation. <b>Late stage instar:</b> Use higher rate when larvae 3 cm in length. Apply follow-up treatment as required.
Cereals	Pasture webworm	NSW, Vic, Tas, SA only	700 mL		Spray at first sign of damage. Apply with ground-rig boom or mister or by air.
		WA only	300 mL		<b>Pre-plant:</b> Apply with the label rate of an approved tillage herbicide to foliage prior to any cultivation. <b>Post-emergence:</b> Apply at first sign of damage. Apply with ground-rig boom or mister or by air.
Cereals Pasture young plants of oil seeds	Cutworms	Qld, NSW, Tas, WA only	900 mL in a minimum of 100 L water		Apply immediately infestation is observed. Apply follow-up treatments as required.
		Vic only	700 mL in a minimum of 100 L water		
Cereals Pasture Oil seeds	Cutworms ( <i>Agrotis munda</i> and <i>A. infusa</i> )	SA only			
Cereals	Cereal curculio	SA, WA only	120 mL / 100 kg seed	Not applicable	<b>Apply as a seed dressing</b> just prior to sowing through an accurately calibrated applicator. <b>Note:</b> A sowing rate of 95 kg/ha (min.) is necessary to ensure economic responses are achieved.

**FIELD CROPS and PASTURES (continued)**

CROP	INSECT	STATE	VOL/HA	WITHHOLDING PERIODS	CRITICAL COMMENTS	
Cereals Pasture Forage crops	Spur-throated locust	Qld, NSW, Vic, WA only	1.25 or 1.5 L	<b>Cereals</b> 10 days  <b>Grazing</b> 2 days	Spray areas of crop or pasture infested with locusts. Apply spray to trees or roosting sites to control swarming adult locusts. <b>Late stage hoppers and adults:</b> Use higher rate.	
	Australian plague locust	Vic only	560 mL		<b>Adults:</b> Spray areas of crop or pasture infested with locusts. <b>Hoppers:</b> Spray a swath in advance of marching band and then spray along the dense marching front. Continue spraying until all hoppers have been contacted.	
		SA only	560 mL			
		Qld, NSW, WA only	350 mL			
	Migratory locust	Qld only				Spray areas of crop, trees and roosting sites infested with locusts.
	Blue oat mite	All States	140 mL			Spray when pests appear in large numbers, 3-6 weeks after autumn rains. Re-spray as necessary. Avoid spraying when pests are sheltering. Spray when at least 2.5 cm cover of pasture or crop is present. <b>DO NOT</b> spray if rain is imminent.
	Redlegged earth mite	NSW, Vic, WA, SA, Tas only				
Lucerne flea		70 mL				
Cereals Pasture Oil seeds	Wingless grasshopper	NSW, Vic, Tas, SA only	500 mL		Spray area of crop or pasture infested with grasshoppers. Apply also as a barrier across the line of advance, when grasshoppers are invading the crop.	
Field Peas Broad beans Chickpeas Lupins Lucerne Lucerne pastures Clover seed crops Rapeseed Linseed Safflower Wheat Oats Barley Rye Triticale Improved annual pastures Established perennial pastures	Blue oat mite Redlegged earth mite	NSW only	140-300 mL		Apply as a ground spray immediately prior to seedling emergence using sufficient water to give good coverage. If mite activity is severe also spray headlands and surrounding vegetation prior to seedling emergence.	
Cotton (young plants)	Cutworms	Qld, NSW only	900 mL in a minimum of 100 L water	<b>Cotton</b> 4 weeks	Apply immediately infestation is observed. Apply follow-up treatments as required.	
	Southern armyworm Common armyworm		700 mL or 900 mL	<b>Grazing</b> 4 weeks	Spray over total crop area when infestation is widespread. When pests are moving as an "army" treat broad strip over and in advance of the infestation. <b>Late stage instar:</b> Use higher rate when larvae 3 cm in length. Apply follow-up treatments as required.	
	Pink spotted bollworm moth	Qld only	1 L		Apply when 10-15 moths are trapped on two consecutive nights. This prevents infestation of bolls by larvae.	

**FIELD CROPS and PASTURES (continued)**

CROP	INSECT	STATE	VOL/HA	WITHHOLDING PERIODS	CRITICAL COMMENTS
Cotton (young plants) <i>continued</i>	Spur-throated locusts	Qld, NSW only	1.25 or 1.5 L	<b>Cotton</b> 4 weeks  <b>Grazing</b> 4 weeks	Spray areas of crop infested with locusts. Apply spray to trees or roosting sites to control swarming adult locusts. <b>Late stage instar:</b> Use higher rate.
	Wingless grasshopper		500 mL		Spray areas of crop infested with grasshoppers. Apply also as a barrier across the line of advance, when grasshoppers are invading the crop.
	Cotton aphid		300 or 400 mL	Apply when pests first appear. Re-spray as indicated by field inspection. Use higher rate for higher populations.	
	Cotton flea beetles Redshouldered leaf beetle		900 mL or 1.5 L	Apply when pests are present. Use higher rate under heavy pest pressure.	
	Springtails		300 mL	Spray when large numbers of pests occur and damage is evident. Re-spray as necessary.	
	Migratory locust	Qld only	350 mL	Spray areas of crop, trees and roosting sites infested with locusts.	
	Wireworm False wireworm	Qld, NSW only	<b>In-furrow:</b> 5 to 15 mL /100 m row or 500 mL to 1.5 L/ha for row spacing of 1 metre	Use higher rate with extreme population numbers. See GENERAL INSTRUCTIONS on soil application.	
Lucerne (young plants)	Cutworms	Qld, NSW, Tas, WA only	900 mL in a minimum of 100 L water	<b>Grazing</b> 2 days	Apply immediately infestation is observed. Apply follow-up treatments as required.
		Vic only	700 mL in a minimum of 100 L water		
	Cutworms ( <i>Agrotis munda</i> and <i>A. infusa</i> )	SA only			
Lucerne	Webspinner caterpillar	Qld, NSW only	700 mL		Spray when pests appear.
	Lucerne leaf roller		300 or 400 mL		Apply when pests first appear. <b>Late stage instar:</b> Use higher rate when larvae 1.5 cm in length are present and /or under heavy pest pressure.
Lucerne and Medics in Pasture and Forage crops	Spotted alfalfa aphid	NSW only	200 or 300 mL		Spray when aphids first appear. Use the higher rate when large numbers of aphids are invading the crop.
	Bluegreen aphid	Qld, Vic, Tas, SA, WA only			<b>Seeding lucerne, medics:</b> Apply when 1-2 aphids/plant are observed. <b>Established lucerne, medics:</b> Apply when 20-40 aphids/stem are observed.
	Pea aphid	Qld, NSW, Vic, Tas, SA only			
	Sitona weevil	NSW, Vic, Tas, SA only	350 mL		Apply October to December, or in autumn when adults occur in damaging numbers.
Maize	African black beetle	NSW only	20 mL/100 m or row or 2 L/ha for row spacing of 1 metre	Not applicable	Apply at sowing as a 15-20 cm band spray. For best results spray nozzles should be in front of press wheels on planter. Press wheels assist in establishment.



**FIELD CROPS and PASTURES (continued)**

CROP	INSECT	STATE	VOL/HA	WITHHOLDING PERIODS	CRITICAL COMMENTS
Maize Soybeans Sunflower	False wireworm Cockroaches Field crickets	Qld only	100 mL + 125 mL sunflower oil/2.5 kg cracked wheat or cracked sorghum bait/ha	Not applicable	Apply at planting of crop. See GENERAL INSTRUCTIONS on preparation of cracked wheat or sorghum bait.
Maize Sunflower	Wireworm False wireworm	Qld, NSW only	<b>In-furrow:</b> 5 to 15 mL /100 m row or 500 mL to 1.5 L/ha for row spacing of 1 metre		Use higher rate with extreme population numbers. See GENERAL INSTRUCTIONS on soil application.
Pasture	Lawn armyworm		700 mL	<b>Grazing</b> 2 days	Spray over total crop area when infestation is widespread. When pests are moving as an "army" treat a broad strip over and in advance of the infestation. Apply follow-up treatments as required.
	Sod webworm	Qld only			Spray as early as possible once pests appear. Apply with ground-rig boom or mister. Re-spray as necessary.
	Blackheaded pasture cockchafer	NSW, Vic, Tas, SA, WA only	900 mL		Treat when larvae are actively foraging as indicated by numerous piles of fresh soil, or casts on the surface. This usually occurs after showers of rain following short dry spells. Apply by ground-rig boom.
Pasture Forage crops	Underground grass grub	NSW, Vic, SA, WA only			Apply when caterpillars are actively feeding. Spray before noticeable damage has occurred. Graze pasture prior to spraying to ensure penetration of spray into the pasture sward.
	Brown pasture looper	NSW, Vic, Tas, SA, WA only	700 mL		Spray at first sign of pasture infestation.
	Pasture webworm				Spray at first sign of damage. Apply with ground-rig boom or mister or by air.
Rapeseed	Wireworm False wireworm	Qld only	1 or 1.5 L/ha	Not applicable	Apply as a broadcast application. Use higher rate with extreme population numbers. See GENERAL INSTRUCTIONS on soil application.
Rice	Bloodworm	NSW only	60 or 150 mL	10 days	Use higher rate when water more than 15 cm or amount of decaying plant material is high.
	Brown planthopper	Qld only	1.5 L		Apply when pest numbers reach 1-2 per tiller and repeat as necessary.
Sorghum  <b>Note: (DO NOT use on Sugar Drip or Alpha sorghum. Check new varieties before applying to entire crop).</b>	Southern armyworm Common armyworm	Qld, NSW only	700 or 900 mL	2 days	Spray over total crop area when infestation is widespread. When pests are moving as an "army" treat a broad strip over and in advance of the infestation. <b>Late stage instar:</b> Use higher rate when larvae 3 cm in length. Apply follow-up treatments as required.
	Cutworms		900 mL in a minimum of 100 L water		Apply immediately infestation is observed. Apply follow-up treatments as required.
	Spur-throated locust		1.25 or 1.5 L		Spray areas of crop infested with locusts. Apply spray to trees or roosting sites to control swarming adult locusts. <b>Late stage instar:</b> Use higher rate.

**FIELD CROPS and PASTURES (continued)**

CROP	INSECT	STATE	VOL/HA	WITHHOLDING PERIODS	CRITICAL COMMENTS
Sorghum  <b>Note: (DO NOT use on Sugar Drip or Alpha sorghum. Check new varieties before applying to entire crop). continued</b>	Australian plague locust	Qld, NSW only	350 mL	2 days	<b>Adults:</b> Spray areas of crop infested with locusts. <b>Hoppers:</b> Spray a swath in advance of marching band and the dense marching front. Continue spraying until all hoppers have been contacted.
	Migratory locust	Qld only			Spray all areas of crop, trees and roosting sites infested with locusts.
	Sorghum midge	Qld, NSW only	500 mL		Check regularly (preferably in the morning) and apply when 1-2 midge per head are present from first emergence of boot to pollen shedding. With repeated attack spray at intervals of 5 days or less.
	Wireworm False wireworm		<b>In-furrow:</b> 5 to 15 mL/ 100 m row or 500 mL to 1.5 L/ha for row spacing of 1 metre	Not applicable	Use high rate with extreme population numbers. See GENERAL INSTRUCTIONS on soil application.
	Corn aphid		500 mL	2 days	Apply when damaging populations of aphids occur.
	False wireworm Cockroaches Field crickets	Qld only	100 mL + 125 mL sunflower oil /2.5 kg cracked wheat or cracked sorghum bait/ha	<b>Grazing</b> 2 days	Apply at planting of crop. See GENERAL INSTRUCTIONS on preparation of cracked wheat or cracked sorghum bait.
Sugar cane	Southern armyworm Common armyworm		700 or 900 mL	7 days  <b>Grazing</b> 2 days	Spray over total crop area when infestation is widespread. When pests are moving as an "army" treat a broad strip over and in advance of the infestation. <b>Late stage instar:</b> Use higher rate when larvae 3 cm in length. Apply follow-up treatments as required.
	Spur-throated locust		1.25 or 1.5 L		Spray areas of crop infested with locusts. Apply spray to trees or roosting sites to control swarming adult locusts. <b>Late stage hoppers and adults:</b> Use higher rate.
	Australian plague locust Migratory locust		350 mL		<b>Adults:</b> Spray areas of crop infested with locusts. <b>Hoppers:</b> Spray a swath in advance of marching band and then spray along the dense marching front. Continue spraying until all hoppers have been contacted. Spray areas of crop, trees and roosting sites infested with locusts.
	Symphylids		2 L		Apply as a low pressure (less than 35 kPa) or gravity feed spray onto the plant sett and adjacent to soil, at the point of exit from the rear of the planting machine, immediately prior to soil cover being brought in over the sett.
	Sugar cane wireworm	Qld, NSW only	1.5 L		
	African black beetle Black beetle	NSW only	1.5 L		Apply at planting or ratooning. Apply as a low pressure (less than 35 kPa) or gravity feed spray onto the plant sett and adjacent soil through a nozzle placed above the planter boards. Repeat treatment within 12 weeks of planting if black beetles re-occur.

**FIELD CROPS and PASTURES (continued)**

CROP	INSECT	STATE	VOL/HA	WITHHOLDING PERIODS	CRITICAL COMMENTS
Tobacco	Wireworm False wireworm Cutworms	Vic only	3 L	7 days  <b>Grazing</b> 2 days	Apply as a pre-plant spray to cultivated soil surface. Incorporate immediately by rotary hoeing to a depth of 10 cm.

**MICELLANEOUS**

CROP	INSECT	STATE	VOL/HA	SPOT SPRAY	CRITICAL COMMENTS
Agricultural Domestic Commercial and Industrial areas	Argentine Ant	Vic, Tas, SA only	Not applicable	1 L/100 L water	Spray ant tracks, nest or where ant activity is noticed. Apply to paths in continuous 30 cm bands. Apply to base of building walls, fences, rockwork, trunks of shrubs and trees, and other hard surfaces to a height of 30 cm.  <b>Note:</b> All occurrences of Argentine ants are to be reported to WA Department of Agriculture.
Domestic Commercial and Industrial areas only		NSW only			
Domestic areas only		WA only			

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

**WITHHOLDING PERIODS**

**CEREAL GRAINS, LEGUME ANIMAL FEEDS, GRASSES, GRASS-LIKE PLANTS, PASTURES AND OTHER FORAGES/FORAGE CROPS:**

**DO NOT graze or cut for stock food for 2 days after application.**

**DO NOT spray the following crops later than the number of days shown, before harvest:**

<b>Mango</b>	- 21 days
<b>Bananas, Citrus, Grape vines, Kiwi fruit</b>	
<b>Pome fruit, Stone fruit, Asparagus, Celery</b>	- 14 days
<b>Cereal grain crops</b>	- 10 days
<b>Avocado, Sugar cane</b>	- 7 days
<b>Cole crops, Cucurbits</b>	- 5 days
<b>Tomatoes</b>	- 3 days
<b>Sorghum grain crops</b>	- 2 days

**COTTON:**

**DO NOT harvest for 4 weeks after application.**

**DO NOT graze or cut for stock food for 4 weeks after application.**

## GENERAL INSTRUCTIONS

Thorough coverage is essential. For application by aircraft apply in 10-50 L of water/ha.

### Mixing

Slowly add the required amount of product to the water in the spray tank under agitation.

### Soil Application

**In-furrow:** Apply as a band spray to the open furrow at planting. Spray the entire furrow width using a nozzle located directly behind the seed tube. Ensure all spray is directed into the furrow contacting bottom, sides and all soil drawn in to the furrow at closure. Use a minimum of 20 L of water/ha. Use the higher rate under extreme population numbers.

### Bait Application

**Bran bait:** Mix 10 mL/kg of bran using sufficient water to give a moist crumb structure. Allow to stand for 2-3 hours before application. Gloves should be worn when preparing and applying the bait.

**Cracked wheat or cracked sorghum bait:** Mix the required volume of this product and sunflower oil together. Then, add to the wheat or sorghum, mixing thoroughly. Gloves should be worn when preparing the bait.

### Compatibility

Lorsban 500EC Insecticide is compatible with the following:

#### Herbicides

Atrazine, bromoxynil, chloresulfuron, diclofop-methyl, diuron, flammoprop-methyl, fluometuron, glyphosate, paraquat, paraquat + diquat, pendimethalin, trifluralin.

#### Insecticides and Miticides

Acephate, azinphos-methyl, carbaryl, cypermethrin, deltamethrin, demeton-S-methyl, diazinon, dichlorvos, dicofol, dimethoate, endosulfan, ethion, fenvalerate, maldison, methidathion, methomyl, monocrotophos, oils, oxythioquinox, parathion, phosalone, phosmet, tetradifon, trichlorfon.

#### Fungicides

Benomyl, chlorothalonil, thiram, triadimefon, zineb, ziram.

#### Fertilisers

Diammonium, phosphate, limestone, miloreanite, monoammonium sulphate, potash, sulphur coated urea, triple superphosphate, urea.

### Incompatibility

Lorsban 500EC Insecticide is not compatible with the following:

#### Herbicides

Dicamba, MCPA, Tordon\* 75-D, Tordon\* 242, 2,4-D.

#### Fungicides

Fixed coppers, liquid and organic coppers, wettable sulphur.

#### Fertilisers

Iron sulphate, manganese sulphate, zinc oxysulphate.

## INSECTICIDE RESISTANCE WARNING

### GROUP 1B INSECTICIDE

For insecticide resistance management Lorsban 500 EC Insecticide is a Group 1B insecticide.

Some naturally occurring insect biotypes resistant to Lorsban 500 EC Insecticide and other Group 1B insecticides may exist through normal genetic variability in any insect population. The resistant individuals can eventually dominate the insect population if Lorsban 500 EC Insecticide or other Group 1B insecticides are used repeatedly. The effectiveness of Lorsban 500 EC Insecticide on resistant individuals could be significantly reduced. Since occurrence of resistant individuals is difficult to detect prior to use, Dow AgroSciences Australia Limited accepts no liability for any losses that may result from the failure of Lorsban 500 EC Insecticide to control resistant insects. Lorsban 500 EC Insecticide may be subject to specific resistance management strategies. For further information contact your local supplier or Dow AgroSciences representative.

## PRECAUTIONS

### Re-entry periods

**Field crops, tree crops and vines:** Do not allow entry into treated crops until spray deposits have dried. If prior entry is required, limit duration of entry and wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each day's use.

**Cotton chippers:** Do not allow entry into treated areas until spray deposits have dried. After this time wear shoes, or boots, socks, long trousers, long sleeved shirt, gloves and hat.

## PROTECTION OF LIVESTOCK

DO NOT feed grass clippings to poultry or other animals. Dangerous to bees. DO NOT spray any plants in flower while bees are foraging.

## PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

DO NOT contaminate food, feed or domestic water supplies. HIGHLY TOXIC TO BIRDS AND REPTILES. VERY HIGHLY TOXIC TO FISH AND AQUATIC INVERTEBRATES. DO NOT re-apply to the same crop within 7 days (unless specifically recommended in the DIRECTIONS FOR USE) Spray drift may occur under adverse meteorological conditions or from certain spray equipment. DO NOT allow spray to drift onto sensitive areas including, but not limited to, natural streams, rivers or waterways and human dwellings. A spray drift management strategy such as those in the 'Best Management Practices Manual for Cotton Growers' or the 'Pilots and Operators Manual' should be applied.

Option for minimising drift to sensitive areas include not spraying within a certain distance of sensitive areas when the wind is blowing towards them (see table for guidance) or ensuring that drifting spray will be intercepted by a catching surface such as a row of shelter trees, an unsprayed row of orchard trees, or hail netting.

Situation	Recommended buffer distance (m)
Orchard (dormant trees, citrus, large trees)	30
Cotton (aerial application)	300
Other crops (aerial application)	100

DO NOT apply if heavy rains or storms that are likely to cause surface runoff are forecast in the immediate area within two days of application.

DO NOT apply when irrigating, or to waterlogged soil, or while water remains on the surface or in furrows, unless tailwater is captured on farm.

DO NOT allow contaminated runoff water from treated paddocks to enter adjacent areas or water bodies. Runoff contaminated by irrigation events (tailwater) and a 25 mm rain storm should be captured on farm for 2 days after application.

DO NOT contaminate streams, rivers or waterways with the chemical or used containers.

## STORAGE AND DISPOSAL

Store in closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight.

DO NOT store near food, feedstuffs, fertilisers or seed.

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.

## SMALL SPILL MANAGEMENT

Wear protective equipment (see SAFETY DIRECTIONS).

Apply absorbent material such as earth, sand, cat litter or clay granules to the spill. Sweep up material when absorption is completed and contain in a refuse vessel for disposal in the same manner as for containers (see STORAGE AND DISPOSAL section). If spilled inside a building wash contaminated surfaces to deactivate the chlorpyrifos with a solution of bleach (sodium hypochlorite) prepared according to the bleach label instructions.

## SAFETY DIRECTIONS

- Product is poisonous if absorbed by skin contact, inhaled or swallowed.
- Repeated exposure may cause allergic disorders.
- Repeated minor exposure may have a cumulative poisoning effect.
- Obtain an emergency supply of atropine tablets 0.6 mg.

- Will irritate eyes and skin.
- Avoid contact with eyes and skin.
- Do not inhale vapour or spray mist.
- When opening the container, preparing the spray or bait, using the prepared spray or bait, wear chemical resistant clothing buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves, goggles, impervious footwear and half face piece respirator with combined dust and gas cartridge.
- If product 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, goggles, respirator, contaminated clothing and if rubber wash with detergent and warm water.

## FIRST AID

- If swallowed, splashed on skin or in eyes, or inhaled, contact the Poisons Information Centre (Phone: Australia 13 11 26) or a doctor at once. Remove any contaminated clothing and wash skin thoroughly. If swallowed activated charcoal may be advised. Give atropine if instructed.
- If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.

## MATERIAL SAFETY DATA SHEET

Additional information is listed in the Material Safety Data Sheet for Lorsban 500 EC Insecticide which is available on request from Dow AgroSciences. Call Customer Service Toll Free on 1-800 700 096 or visit [www.dowagrosciences.com.au](http://www.dowagrosciences.com.au)

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