

FRONT PANEL

**POISON**

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

**DAVID GRAYS  
CHLORPYRIFOS 500**

**ACTIVE CONSTITUENT: 500g/L CHLORPYRIFOS  
(an anticholinesterase compound)  
SOLVENT: 450g/L LIQUID HYDROCARBON**

<b>GROUP</b>	<b>1B</b>	<b>INSECTICIDE</b>
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**FOR THE CONTROL OF A WIDE RANGE OF  
INSECT PESTS ON FRUIT, VEGETABLES,  
OILSEEDS, COTTON, CEREALS, PASTURE,  
POTTED ORNAMENTALS, TURF AS SPECIFIED  
IN THE DIRECTIONS FOR USE TABLE**

**READ THE ATTACHED BOOKLET BEFORE USING THIS PRODUCT**

**5 LITRES  
20 LITRES**

NRA Approval No: 42284/0901

<b>N.R.A.</b>
<b>APPROVED LABEL (TEXT)</b>
Label No: <i>42284/0901</i>
Date: <i>10.10.2001</i>
Signature: <i>[Signature]</i>

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19/07/01

## DAVID GRAYS CHLORPYRIFOS 500

**STORAGE AND DISPOSAL:** Store in the closed, original container, in a dry, well ventilated area, as cool as possible. DO NOT store for prolonged periods in direct sunlight. Keep away from foodstuffs. Treated seed, when stored, should be kept apart from other seed and the containers clearly marked to indicate that the contents have been treated with Chlorpyrifos 500. Containers which have held treated seed or bait should not be used for any other purpose. Triple or (preferably) pressure rinse containers before disposal. Add rinsings to the spray tank. Do not dispose of undiluted chemicals on-site. Break, crush or puncture and bury empty containers in a local authority landfill. If not available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, vegetation and roots. Empty containers and product should not be burnt.

**SAFETY DIRECTIONS:** Product is poisonous if absorbed by skin contact, inhaled or swallowed. Repeated minor exposure may have a cumulative poisoning effect. Obtain an emergency supply of atropine tablets 0.6mg. Avoid contact with eyes and skin. Will irritate the eyes and skin. Do not inhale vapour or spray mist. When opening the container, preparing spray or using the prepared spray wear cotton overalls buttoned to the neck and wrist, washable hat, elbow-length PVC gloves and face shield or goggles. If product on skin, wash the area immediately with soap and water. After use and before eating, drinking or smoking wash hands, arms and face thoroughly with soap and water. After each days use wash gloves, face shield or goggles and contaminated clothing.

**FIRST AID:** If poisoning occurs contact a doctor or Poisons Information Centre. Ph.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. If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.

## **DAVID GRAYS CHLORPYRIFOS 500**

### **MATERIAL SAFETY DATA SHEET:**

Additional information is listed on the Material Safety Data Sheet for David Grays Chlorpyrifos 500, which is available from David Gray & Co. Pty. Ltd. on request, Ph: (08) 9337 4933 or refer their website [www.davidgray.com.au](http://www.davidgray.com.au)

Batch Number:

D.O.M.

David Gray & Co. Pty. Ltd.  
2 Rawlinson Street  
O'CONNOR WA 6163  
Ph: (08) 9337 4933

**POISON**

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CHLORPYRIFOS 500**

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<b>GROUP</b>	<b>1B</b>	<b>INSECTICIDE</b>
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David Gray & Co. Pty. Ltd.  
ACN 008 671 127  
2 Rawlinson Street  
O'CONNOR WA 6163  
Phone (08) 9337 4933

NRA Approval Number: *42284/0901*

**DIRECTIONS FOR USE:**

**FIELD AND PASTURE CROPS:**

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
CEREALS (For Harvest- including Barley, Maize, Millet, Oats, Rice, Rye, Sorghum, Triticale, Wheat)	Armyworms	All States	700-900mL/ha	10H 2G Days	Use higher rate when larvae cm in length. Spray over total crop area when infestation is widespread. Apply as a band spray across the line of advance when larvae are moving. Repeat treatment as required.
	Spur throated Locust	QLD, NSW, Vic, WA only	1.25 to 1.5L/ha		Spray areas of crop, trees and roosting sites infested with locusts. Use higher rate to control late stage hoppers and adults.
	Australian Plague Locust	QLD, NSW, WA only	350mL/ha		Spray infested crop areas and as a band across the line of advance and into marching hoppers. Spray until all hoppers have been contacted.
		SA only	560mL/ha		
		Vic only	560mL/ha adults 350mL/ha hoppers		
	Migratory Locust	QLD only	350mL/ha		Spray areas of crop, trees and roosting sites infested with locusts.
	Blue Oat Mite	All states	70 to 140mL/ha		Apply when pests appear in large numbers usually 3-6 weeks after autumn rains. At least 2.5cm cover of crop should be present. Avoid spraying if pests are sheltering or if rain is imminent. Repeat as required. Use higher rate when pest pressure is heavy.
	Redlegged Earth Mite	NSW, Vic, Tas, SA,	140mL/ha		
Lucerne Flea	WA only	70mL/ha			

**FIELD AND PASTURE CROPS: (continued)**

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
<b>CEREALS</b> (continued)	Pasture Webworm	NSW, Vic, SA, Tas only	700mL/ha	10H 2G Days	Spray at first sign of damage. Apply by ground with boom or mister by air.
		WA only	300mL/ha		
	Cutworm	Qld, NSW, WA, Tas only	900mL/ha (min. 100L water)		Apply at first sign of infestation and repeat as required.
		Vic, SA only	700mL/ha (min. 100L water)		
Wingless Grasshopper	NSW, Vic, SA Tas only	500mL/ha	Spray areas of crop infested with grasshoppers. Apply also as a barrier across the line of advance.		
<b>CLOVER SEED CROPS</b>	Blue Oat Mite, Redlegged Earth Mite	NSW only	140 to 300mL/ha	2G Days	Apply as ground spray immediately prior to seedling emergence using sufficient water to give good coverage. If mite activity severe also spray headlands and surrounding vegetation prior to seedling emergence.
<b>COFFEE</b> (non-bearing) <b>DUBOISIA</b> <b>HOPS</b>	Mealybugs	Qld only	200mL/100L water	Nil	Apply to base of seedlings and surrounding area to disrupt ants which tend mealybugs. Apply as required.
	Cutworms	Qld only	900mL/ha		Apply at planting out.
	Armyworm, Light Brown Apple Moth	Vic, Tas only	160mL/100L water		Apply as required.
<b>LUCERNE</b>	Spotted Alfalfa Aphis, Blue-green Aphid	All States	200mL to 300mL/ha (min. 100L water)	2H 2G Days	Apply at first sign of aphids. Repeat as required. Use the higher rate for heavy infestations. Seedlings should be treated when 1-2 aphids per stem and established plants when 20-40 aphids per stem
	Cutworm (in young plants)	Qld, NSW, WA, Tas only	900mL/ha (min. 100L water)		Apply at first sign of infestation. Repeat as required.
		Vic, SA only	700mL/ha (min. 100L water)		
	Lucerne Leafroller	Qld, NSW only	300 to 400mL/ha		Apply at first sign of pests. Use higher rate for heavy infestations.
	Pea Aphid	Qld, NSW, Vic, SA, Tas only	200 to 300mL/ha		
	Blue Oat Mite, Redlegged Earth Mite	NSW only	140 to 300mL/ha		Apply as ground spray immediately prior to seedling emergence using sufficient water to give good coverage. If mite activity severe also spray headlands and surrounding vegetation prior to seedling emergence.
	Webspinner Caterpillar	Qld, NSW only	700mL/ha	2H 2G Days	Apply at first sign of pests.
Sitona Weevil	NSW, Vic, Tas, SA, WA only	350mL/ha		Apply Oct to Dec or in autumn when adults occur in damaging numbers.	

**FIELD AND PASTURE CROPS: (continued)**

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
MAIZE	False Wireworm, Wireworm	Qld, NSW, only	0.5 to 1.5L/ha for row spacing of 1m or 5 to 15mL/100m row	10H 2G Days	Apply as in-furrow band spray at least 10cm wide using nozzle directly behind the planting tyne. Use higher rate for harder to control species. Apply with 30-70L water per hectare.
	African Black Beetle	NSW only	2L/ha for row spacing of 1m or 20mL/100m row		Apply at sowing as a 15-20cm band spray. For best results spray nozzles should be in front of press wheels on planter. Press wheels assist in establishment.
PASTURE & FORAGE CROPS (Including Clover, Grasses, Lucerne, Medics, Cereal stubble)	Armyworms	All States	700 to 900mL/ha	10H 2G Days	Use higher rate when larvae 3cm in length. Spray over total crop area when infestation is widespread. Apply as a band spray across the line of advance when larvae are moving. Repeat treatment as required.
	Lawn Armyworm	Qld, NSW only	700mL/ha		Spray over total crop area when infestation is widespread. Apply as a band spray across the line of advance when larvae are moving. Repeat treatment as required.
	Sod Webworm	Qld only			
	Spur Throated Locust	Qld, NSW, Vic, WA only	1.25 to 1.5L/ha		Spray areas of crop, trees and roosting sites infested with locusts. Use higher rate to control late stage hoppers and adults.
	Australian Plague Locust	Qld, NSW, WA only	350mL/ha		Spray infested crop areas and as a band across the line of advance and onto marching hoppers. Spray until all hoppers have been contacted.
		SA only	560mL/ha		
		Vic only	560mL/ha adults 350mL/ha hoppers		
	Migratory Locust	Qld only	350mL/ha		Spray areas of crop, trees and roosting sites infested with locusts.
	Spotted Alfalfa Aphid, Blue- green Aphid	All states	200 to 300mL/ha		Apply at first sign of aphids. Repeat as required. Use the higher rate for heavy infestations.
	Pea Aphid	Qld, NSW, Vic, Tas, SA only			Seedlings should be treated when 1-2 aphids per stem and established plants when 20-40 aphids per stem.
	Blue Oat Mite	All States	70 to 140mL/ha		Apply when pests appear in large numbers usually 3-6 weeks after autumn rains. At least 2.5cm cover of crop should be present. Avoid spraying if pests are sheltering or if rain is imminent. Repeat as required.
	Redlegged Earth Mite	NSW, Vic, Tas, SA, WA only	140mL/ha		
	Lucerne Flea		70mL/ha		
Pasture Webworm, Brown Pasture Looper		700mL/ha	Spray at first sign of damage. Apply by ground with boom or mister by air.		

**FIELD AND PASTURE CROPS: (continued)**

<b>CROP</b>	<b>PEST</b>	<b>STATE</b>	<b>RATE</b>	<b>WHP</b>	<b>CRITICAL COMMENTS</b>
<b>PASTURE &amp; FORAGE CROPS</b> (continued) (including Clover, Grasses, Lucerne, Medics, Cereal stubble)	Blackheaded Pasture Cockchafer	NSW, Vic, Tas, SA, WA only	900mL/ha	10H 2G Days	Treat when larvae are actively foraging as indicated by numerous piles of fresh soil, or castes on the surface. This usually occurs after dry spells followed by showers. Apply by ground rig boom as late in the afternoon as possible.
	Sitona Weevil		350mL/ha		Apply Oct to Dec or in autumn when adults occur in damaging numbers.
	Underground Grass Grub	NSW, Vic, SA, WA only	900mL/ha		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.
	Cutworm	Qld, NSW, Tas, WA only	900mL/ha (Min 100L water)		Apply at first sign of infestation. Repeat as required.
		Vic, SA only	700mL/ha (min 100L water)		
	Wingless Grasshopper	NSW, Vic, Tas, SA only	500mL/ha		Spray areas of crop infested with grasshoppers. Apply also as a barrier across the line of advance.
<b>RICE</b>	Bloodworm	NSW only	80 to 150mL/ha	10H 2G Days	Use higher rate when water more than 15cm deep or amount of decaying plant material is high.
	Brown Planthopper	Qld only	1.5L/ha		Apply when pest numbers reach 1-2 per tiller. Repeat as required.
<b>SORGHUM</b> (NB. Do not use on Sugar Dip or Alpha Sorghum. Check new varieties before applying to entire crop.)	Armyworms	Qld, NSW only	700 to 900mL/ha	2H 2G Days	Use higher rate when larvae 3cm in length. Spray over total crop area when infestation is widespread. Apply as a band spray across the line of advance when larvae are moving.
	Corn Aphid		500mL/ha		Apply when significant infestation occurs.



**FIELD AND PASTURE CROPS: (continued)**

<b>CROP</b>	<b>PEST</b>	<b>STATE</b>	<b>RATE</b>	<b>WHP</b>	<b>CRITICAL COMMENTS</b>
<b>SORGHUM</b> (NB. Do not use on Sugar Dip or Alpha Sorghum. Check new varieties before applying to entire crop.)	Cutworm	Qld, NSW, only	900mL/ha (min 100L water)	2H 2G Days	Apply at first sign of pests. Repeat as required.
	Australian Plague Locust		350mL/ha		Spray crop areas infested with locusts. When hoppers are moving apply as a band spray across the path of advance and spray hoppers until all have been contacted. Use higher rate for the control of late stage hoppers and adults.
	Spur Throated Locust		1.25 to 1.5L/ha		
	Sorghum Midge		500mL/ha		Check regularly, preferably in the morning, and spray when 1-2 midges per head present from first emergence of boot to pollen shedding. Apply at intervals of 5 days or less for repeat attacks.
	False Wireworm Wireworm		0.5 to 1.5L/ha for row spacing of 1m or 5 to 15mL per 100m row		Apply as in-furrow band spray at least 10cm wide using a nozzle directly behind the planting tyne. Use higher rate for harder to control species. Apply with 30-70L water per hectare.
	Migratory Locust	Qld only	350mL/ha		Spray infested areas of crop, trees and roosting sites.

**FIELD AND PASTURE CROPS: (continued)**

<b>CROP</b>	<b>PEST</b>	<b>STATE</b>	<b>RATE</b>	<b>WHP</b>	<b>CRITICAL COMMENTS</b>
<b>SUGAR CANE</b>	Armyworm	QLD only	700 to 900mL/ha	7H 2G Days	Use higher rate when larvae 3cm in length. Spray over total crop area when infestation is widespread. Apply as a band spray across the line of advance when larvae are moving.
	Australian Plague Locust, Migratory Locust	Qld only	350mL/ha		Spray crop areas infested with locusts. When hoppers are moving apply as a band spray across the path of advance and spray hoppers until all have been contacted.
	Spur Throated Locust		1.25 to 1.5L/ha		Spray infested areas of crop, nearby trees and roosting sites. Use higher rate to control late stage hoppers and adults.
	Sugar Cane Wireworm	Qld, NSW only	1.5L/ha		Apply as low pressure (less than 35kPa) or gravity feed spray onto the plant sett and adjacent soil just before soil cover is brought over the sett. Use a minimum of 60L water per hectare.
	Symphylids	Qld only	2L/ha		Apply at planting as a low pressure (less than 35kPa) or gravity feed spray onto the plant sett and adjacent soil through a nozzle placed above the planter boards. Apply to young ratoons in a 30cm wide band in minimum 100L water per hectare as soon as damage appears. Repeat treatment within 12 weeks of planting if beetles re-occur.
	African Black Beetle	NSW only	1.5L/ha		
<b>TOBACCO</b>	Wireworm, False Wireworm, Cutworm	Vic only	3L/ha	Nil	Apply as pre-plant spray to cultivated soil surface. Incorporate immediately by rotary hoeing to 10cm.

**OIL SEED AND FIBRE CROPS:**

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
OILSEEDS (including Cotton, Mustard, Linseed, Peanut, Poppy, Rape, Safflower, Sunflower)	Cutworm	Qld, NSW, Tas only	900mL/ha	2G Days	Apply at first sign of pests. Use in a minimum of 100L water per hectare. Repeat as required.
		Vic, SA, WA only	700mL/ha		
	Wingless Grasshopper	Qld, NSW, Vic, Tas, SA only	500mL/100L to 150L water/ha		Spray areas of crop infested with grasshoppers. Apply also as a barrier across the line of advance.
	Blue Oat Mite, Redlegged Earth Mite	NSW only	140 to 300mL/ha		Apply as ground spray immediately prior to seedling emergence using sufficient water to give good coverage. For severe infestations also spray headlands and surrounding vegetation prior to emergence.
COTTON	Armyworm	Qld, NSW only	700 to 900mL/ha	4 Weeks (Grazing) 4 Weeks (Harvest)	Use higher rate when larvae 3cm in length. Spray over total crop area when infestation is widespread. Apply as a band spray across the line of advance when larvae are moving.
	Cotton Aphid		300 to 400mL/ha		Apply at first sign of pests. Repeat as required.
	Cotton Flea Beetle, Red Shouldered Leaf Beetle		0.9 to 1.5L/ha		Apply at first sign of pests. Use higher rate for heavy infestations.
	Springtails		300mL/ha		Spray when large numbers appear. Repeat as required.
	Spur Throated Locust		1.25 to 1.5L/ha		Spray infested areas of crop, nearby trees and roosting sites. Use higher rate to control late stage hoppers and adults.

**OIL SEED AND FIBRE CROPS: (continued)**

<b>CROP</b>	<b>PEST</b>	<b>STATE</b>	<b>RATE</b>	<b>WHP</b>	<b>CRITICAL COMMENTS</b>
<b>COTTON</b> (continued)	False Wireworm, Wireworm	Qld, NSW only	0.5 to 1.5L/ha for row spacing of 1m or 5 to 15mL/100m row	4 Weeks Harvest 4 Weeks Grazing	See <b>General Instructions</b> on soil application. Use higher rate for heavy infestations.
	Migratory Locusts	Qld only	350mL/ha		Spray areas of crop, tree and roosting sites infested with locusts.
	Pink Spotted Bollworm (Moth stage)		1.0L/ha		To prevent infestation of bolls by larvae apply when 10-15 moths are trapped on two consecutive nights.
<b>RAPESEED</b>	False Wireworm, Wireworms	Qld, NSW only	1.0 to 1.5L/ha	2G Days	Apply as a broadcast application and incorporate in the top 5cm of soil. Use at the higher rate for severe infestations. See <b>General Instructions</b> on soil application.
<b>SAFFLOWER</b>			Qld, NSW only		0.5 to 1.5L/ha for row spacing of 1m or 5 to 15mL/100m or row
<b>SUNFLOWER</b>					
<b>CEREALS</b>	Cereal Curculio	SA, only	120mL/100Kg seed	Nil Days	Dress seed just prior to sowing. Use an accurately calibrated applicator. A sowing rate of 95kg/ha minimum is necessary.
	Seedharvesting Ants	Qld only	80mL/100Kg seed		Apply as seed treatment at crop sowing.

**FRUIT:**

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
AVOCADOS	Florinia Scale, Latania Scale	Qld only	100mL/100L water	7 Days	Apply as a quick-acting cleanup spray particularly during bad infestations.
	Avocado Leafroller Ivy Leafroller		1.0 to 2.0L/ha or 50 to 100mL/100L water		Use this rate in a tank mix with 1.0L/ha (500mL/100L water) of Dichlorvos (500g/L product). For low volume spray equipment use L/ha rate. Apply at first sign of pest activity, before larvae move to the fruit. Use higher rate under heavy pressure.
	Latania Scale, Light Brown Apple Moth, Hairy Caterpillar, Redshouldered Leaf Beetle	NSW only			Apply and repeat as necessary. Spot spray affected trees only. Use higher rate during severe infestations.
	Ivy Leafroller				Apply at first sign of pest activity before larvae move to fruit. Use higher rate during severe infestations
	Queensland Fruit Fly	Qld only	400mL/100L water PLUS 2.0L of Yeast Autolysate		Apply 15-30L of spray mixture/ha (50-100mL/tree) as a strip or patch low in the tree every 7 days. Avoid contact with fruit.
BANANAS	Banana Scab Moth, Banana Flower Thrips		1.0 to 2.0L/ha or 200mL/100L water	14 Days	Apply at first appearance of flowers and repeat as required until fingers are exposed. Use high rate during wet weather or heavy infestation. Use a minimum of 10L water/ha for aerial application and 500L water/ha for ground application.
	Cluster Caterpillar		150 to 200mL/ha water		Apply by spot spraying as required, especially on young, newly planted crops.
	Banana Weevil Borer	Qld, NSW, WA only	1.0 to 1.8L/100L water or 5 to 7mL per stool (for av. 2000 plants per ha)	Nil	Use higher rate in tropical and subtropical areas. Apply Feb-Apr in tropical areas. After removal of trash apply 500-700mL of spray mix to lower 30cm of butt and soil within a 30cm radius. Ensure thorough coverage of butt and suckers.

FRUIT: (continued)

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
BANANAS (continued)	Lepidopterous Caterpillars	NSW only	200mL/100L water	Nil	Apply from first appearance of flower bell and repeat as required until fingers are exposed. Do not apply by air.
CITRUS	California Red Scale (Citrus Red Scale)	All States	100mL/100L water or 50mL + 1.0L Summer Oil/100L water	14 Days	Apply during Nov-Mar period. Two sprays may be required with heavy scale infestations. Apply to point of runoff using high volume sprayer. <b>DO NOT treat citrus in areas where integrated pest control programs are in operation.</b>
	Wingless Grasshopper	NSW, SA, Vic, Tas only	500mL in 100 to 150L water/ha or 50mL/100L water		Spray ground areas infested with grasshoppers. Apply also as a barrier across the line of advance when grasshoppers are invading the crop.
	Citrus Rust Thrips	Qld only	100mL/100L water	14 Days	Apply as required. (Use in situations where Dimethoate would be disruptive to natural predators.
	Citrus Leafeating Weevil				Spray once in summer if greater than 25% of trees heavily infested.
	Citrus Mealybug				Spray once in late Nov if greater than 25% of fruit infested.
	Fruiteating Weevil				Spray once in Oct if greater than 5% of young fruit damaged.
	Fullers Rose Weevil				Skirt trees to 0.5m above ground. Apply spray to the lower trunk in Jan and again every 2-3 months until harvest.
	Purple Scale				Spray once in Dec if greater than 25% of fruit infested.
	White Louse Scale				Spray if greater than 20% of trees have trunks or limbs infested. Re-apply after 6 weeks for heavy infestations.
	Ants	Qld, Vic, SA only	2.0L/ha or 200mL/100L water		<b>Ground and Butt treatment:</b> Apply 1000L of spray mixture/ha to ground beneath trees, and to lower butts at 1.5L spray per butt. Spray 1-2 times per year as required.
	2.0L/100L water		<b>Butt treatment:</b> Apply 1.0L of spray mixture per butt as required.		

FRUIT (continued)

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
CITRUS (continued)	Queensland Fruit Fly	Qld only	400mL + 2.0L yeast autolysate/100L water	14 Days	Apply 15-30L spray mixture/ha (50-100L/tree) in a strip or patch low on the tree. Use every 7-10 days during periods of crop susceptibility.
CUSTARD APPLES	Ants		200mL to 2.0L/100L water		Apply once or twice per season to each tree trunk and ground beneath tree at rate of 1000L spray per hectare. Prune tree skirt off ground at end of each season.
GRAPES	Grape Vine Scale	All States	100mL/100L or 50mL + 1.0L Winter Oil/100L water		Apply as a dormant spray after pruning (July).
	Light Brown Apple Moth		500mL/ha or 50mL/100L water		Make first application just after berry set (early Oct). Repeat as required.
	Grape Vine Moth	Qld, NSW Tas, SA, WA only			
	Mealybugs, Tuber Mealybugs	Qld only	100mL/100L water		Apply to bunches and the lower parts of vines before berries close. A second application 14 days later may be necessary.
KIWIFRUIT	Common Armyworm, Southern Armyworm, Light Brown Apple Moth	All States	1.0L/ha or 50mL/100L water	14 Days	Apply at green tip at least 10 days after dormant lime sulphur application and pre-blossom. Do not apply post-blossom.
	Scale Insects	NSW only	50m/100L water		Apply when pests evident and repeat application every 3-4 weeks while pests are still active. Do not apply during blossom period.
MANGOES	Green Tree Ant	Qld only	200mL/100L water	21 Days	Remove nests and spray canopy.
	Common Mango Scale		100mL/100L water		Apply to coincide with crawler activity. Ensure thorough coverage of all branches, foliage and fruit.
PINEAPPLES	Ants, Mealybugs		50-100mL/ 100L water	14 Days	Apply when insects first appear and repeat in 90 days. Use minimum of 3000L spray per hectare. Use higher rate for heavy infestations.

FRUIT: (continued)

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
PINEAPPLES (continued)	Pineapple Scale	Qld only	100mL/100L water	14 Days	Apply when more than 200 scales/leaf present in the absence of parasites or predators.
	Scarab Larvae (Whitegrubs)		5.0L/ha		Apply as pre-plant spray to freshly cultivated soil surface. Incorporate immediately with rotary hoe to depth of 10-20cm.
POME FRUIT	Queensland Fruit Fly		400mL/100L water PLUS 2.0L of Yeast Autolysate		Apply 15-30mL spray mixture/ha (50-100mL/tree) in a strip or patch low on the tree. Avoid contact with fruit.
	Wingless Grasshopper	NSW, Vic, Tas, SA only	500mL/ha or 50mL/100L water	Spray ground areas infested with grasshoppers. Apply also as a barrier across the line of advance when grasshoppers are invading the crop.	
APPLES and PEARS	Mealybugs	SA, WA only	100mL/100L water	14 Days	Apply at petal fall and again 10-14 days later. If necessary apply 2-3 weeks prior to harvest. Thorough coverage is essential.
	San Jose Scale	Qld, NSW, SA, WA only			Apply when nymphs are active (from mid Nov). During dormant period add 2% Winter Oil and spray as late as possible. Ensure thorough coverage of all branches, foliage and fruit.
	Woolly Aphid				Apply at first sign of pests. Ensure thorough coverage.
LOQUATS	Queensland Fruit Fly	Qld only	400mL/100L water PLUS 2.0l of Yeast Autolysate	Nil	Apply 15-30mL spray mixture/ha (50-100mL/tree) in a strip or patch low on the tree. Avoid contact with fruit.
STONE FRUIT	European Earwig	NSW only	2.0L/ha or 100mL/100L water	14 Days	<b>Spray Application:</b> Apply in a minimum of 2000L water per hectare in spring.
	San Jose Scale	Qld, NSW, WA only	100mL/100L water (2% Miscible Oil can be added to 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 from mid-late November onwards. Ensure thorough coverage of branches, foliage and fruit. <b>Note:</b> Some fruit marketing may occur if high volume spraying is carried out under hot, dry conditions.



**VEGETABLES:**

<b>CROP</b>	<b>PEST</b>	<b>STATE</b>	<b>RATE</b>	<b>WHP</b>	<b>CRITICAL COMMENTS</b>
<b>BULB VEGETABLES</b> ONIONS, SHALLOTS	Wingless Grasshopper	NSW, Vic, Tas only	500mL/ha or 50mL/100L water	Nil	Spray areas of crop infested with grasshoppers. Apply also as a barrier across the line of advance.
	Vegetable Weevil (Desianthan Weevil in WA)	NSW, WA only	800mL/ha		Apply at first sign of pests. Apply as a band over young plants and adjacent soil. One spray should be sufficient if applied at the seedling stage.
	Cutworm	All States	700mL/ha or 700mL/100L water		Apply when pests appear. Spray soil to at least 20cm either side of row. Repeat as required.
<i>helicoverpa spp.</i> (include. Corn Earworm, Native Budworm)	1.5 to 2.0L/ha or 150 to 200mL/100L water		5 Days	Spray at 10-14 day intervals. Use higher rate for severe infestations. Use 1000L spray/ha. To improve spray coverage add wetting agent as recommended. For Qld use lower rate only.	
Cutworm		700mL/ha or 70mL/100L water		Apply immediately infestation is observed. Apply 1000L spray/ha to ensure thorough coverage. Spray soil to at least 20cm both sides of row. Repeat application if necessary.	
<b>COLE VEGETABLES</b> (include. Broccoli, Brussel Sprouts, Cabbage, Cauliflower)	Cabbage Cluster Caterpillar, Cabbage Moth, Cluster Caterpillar, Cabbage Aphid.	NSW, Vic, Tas, SA WA only	1.5 to 2.0L/ha or 150 to 200L/100L water		Spray at 10-14 day intervals. Use higher rate for severe infestations. Use 1000L spray/ha. To improve spray coverage add wetting agent as recommended.
	Wingless Grasshopper	NSW, Vic, Tas, SA only	500mL/ha or 50mL/100L water		Spray infested areas. Apply also as a barrier across the line of advance.
	African Black Beetle	Qld only	700 to 900mL/ha		Apply as a soil drench at the base of plants.
	Redlegged Earth Mite. Blue Oat Mite	NSW only	140 to 300mL/ha		Use higher rate for severe infestation. Surrounding vegetation may require spraying to control population.
	Vegetable Weevil (Desianthan Weevil in WA)	NSW, WA only	800mL/ha		Apply immediately infestation is observed. Apply as a band over young plants and adjacent soil along the row. One spray should be sufficient if plants are sprayed at the seedling stage or soon after.

VEGETABLES (continued)

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
COLE VEGETABLES (include Broccoli, Brussel Sprouts, Cabbage, Cauliflower)	Vegetable Weevil (Desianthan Weevil in WA)	Qld only	70 to 100mL/100L water	5 Days	Apply immediately infestation is observed. Apply as a band over young plants and adjacent soil along the row. One spray should be sufficient if plants are sprayed at the seedling stage or soon after.
	CABBAGE CAULIFLOWER	African Black Beetle	NSW only		2.0L/ha (Boom Spray) or 300mL/100L water (Drench)
FRUITING AND CUCURBIT VEGETABLES TOMATOES	Cutworm	All States	700mL/ha or 70mL/100L water	3 Days	Apply when pests appear. Spray soil to at least 20cm either side of row. Repeat as required.
	Green Peach Aphid	Qld, Vic, Tas, SA, WA only	1.0L/ha or 100mL/100L water		Spray when aphids first detected.
	<i>Helicoverpa</i> <i>spp.</i> (include. Tomato Grub, Native Budworm)	Qld, NSW, Vic, Tas WA only	1.5 to 2.0L/ha or 150 to 200L/100L water	3 Days	Apply every 7-10 days from time of flowering. Use higher rate for heavy infestations.
	Wingless Grasshopper	NSW, Vic, Tas, SA only	500mL/ha or 50mL/100L water		Spray areas of crop infested with grasshoppers. Apply also as a barrier across the line of advance.
	Green Vegetable Bug	SA, WA, Tas only	1.5 to 2.0L/ha or 150 to 200mL/100L water		Spray at first sign of bug activity. Use at the higher rate for heavy infestations.
	False Wireworm, Wireworm	Qld only	5.0L/ha		Spray at time of planting. See General Instructions on soil application.
	Vegetable Weevil (Desianthan Weevil in WA)	NSW, WA only	800mL/ha		Apply at first sign of pests. Apply as a band over young plants and adjacent soil. One spray should be sufficient if applied at the seedling stage.

**VEGETABLES: (continued)**

<b>CROP</b>	<b>PEST</b>	<b>STATE</b>	<b>RATE</b>	<b>WHP</b>	<b>CRITICAL COMMENTS</b>
<b>FRUITING AND CUCURBIT VEGETABLES TOMATOES (continued)</b>	African Black Beetle	NSW only	2.0L/ha (Boomspray)	3 Days	Apply in 500-1000L water using a boom spray at or soon after planting as a 10-15cm band spray. A repeat application may be necessary.
			300mL/100L water		Apply 100mL of diluted spray to the base of each plant as a drench. Apply at first sign of pests. A repeat application may be necessary.
<b>CAPSICUM EGGPLANT</b>	Cutworm	All States	700mL/ha or 70mL/100L water	Nil	Apply when pests appear. Spray soil to at least 20cm either side of row. Repeat as required.
	Wingless Grasshopper	NSW, Vic, Tas only	500mL/ha or 50mL/100L water		Spray areas of crop infested with grasshoppers. Apply also as a barrier across the line of advance.
	Vegetable Weevil (Desianthan Weevil in WA)	NSW, WA only	800mL/ha		Apply at first sign of pests. Apply as a band over young plants and adjacent soil. One spray should be sufficient if applied at the seedling stage.
<b>CUCURBITS (including Chokos, Cucumbers, Gherkin, Marrows, Melons, Pumpkins, Squash)</b>	Ants, Mealybugs	Qld only	100mL/100L Water	5 Days	Apply as required. Suitable in situations where enhanced biological control by the Mealybug Ladybird is desired.
	Whiteflies	NSW only	50mL/100L water		Apply at first sign of pests. Repeat applications may be required every 10-14 days.
<b>LEAFY VEGETABLES Leafy Crucifers (Including Chou Moullier, Kale, Mustard, Rape)</b>	Redlegged Earth Mite, Blue Oat Mite	NSW only	140 to 300mL/ha	Nil	Use the higher rate for severe infestations. Headlands and surrounding vegetation may be needed to be sprayed
	Vegetable Weevil	Qld only	70 to 100mL/100L water		

**VEGETABLES: (continued)**

<b>CROP</b>	<b>PEST</b>	<b>STATE</b>	<b>RATE</b>	<b>WHP</b>	<b>CRITICAL COMMENTS</b>
<b>LEAFY VEGETABLES</b> Leafy Crucifers (including Chou Moutier, Kale, Mustard, Rape continued)	Vegetable Weevil (Desianthan Weevil in WA)	NSW, WA only	800mL/ha	Nil	Apply at first sign of pests. Apply as a band over young plants and adjacent soil. One spray should be sufficient if applied at the seedling stage.
<b>LETTUCE</b>	Vegetable Weevil (Desianthan Weevil in WA)	NSW, WA only			
<b>LETTUCE SILVERBEET</b>	Redlegged Earth Mite, Blue Oat Mite	NSW only	140 to 300mL/ha	7 Days	Use the higher rate for severe infestations. Headlands and surrounding vegetation may need to be sprayed.
<b>LEGUME VEGETABLES BEANS AND PEAS</b>	Cutworm	All States	700mL/ha or 70mL/100L water	Nil	Apply when pests appear. Spray soil to at least 20cm either side of row. Repeat as required.
	Wingless Grasshopper	NSW, Vic, Tas only	500mL/ha or 50mL/100L water		Spray areas of crop infested with grasshoppers. Apply also as a barrier across the line of advance.
	Vegetable Weevil (Desianthan Weevil in WA)	NSW, WA only	800mL/ha		Apply at first sign of pests. Apply as a band over young plants and adjacent soil. One spray should be sufficient if applied at the seedling stage.
<b>BROAD BEANS (FABA BEANS), CHICKPEAS, FIELD PEAS, LUPINS</b>	Blue Oat Mite Redlegged Earth Mite	NSW only	140 to 300mL/ha		Apply as a ground spray immediately prior to seedling emergence using sufficient water to give good coverage. For severe infestations spray headlands and surrounding vegetation prior to emergence.
<b>ROOT &amp; TUBER VEGETABLES BEETROOT</b>	Cutworm	All States	700mL/ha or 70mL/100L water		Apply when pests appear. Spray soil to at least 20cm either side of row. Repeat as required.
	Wingless Grasshopper	NSW, Vic, Tas only	500mL/ha or 50mL/100L water		Spray areas of crop infested with grasshoppers. Apply also as a barrier across the line of advance.

**VEGETABLES: (continued)**

<b>CROP</b>	<b>PEST</b>	<b>STATE</b>	<b>RATE</b>	<b>WHP</b>	<b>CRITICAL COMMENTS</b>
<b>ROOT &amp; TUBER VEGETABLES BEETROOT (continued)</b>	Earwigs	Qld only	70mL/100L water	Nil	Apply as a band spray onto the soil surface at the time of planting. Repeat just after seedling emergence
	Vegetable Weevil (Desianthan Weevil in WA)	NSW, WA only	800mL/ha		Apply at first sign of pests. Apply as a band over young plants and adjacent soil. One spray should be sufficient if applied at the seedling stage.
<b>CARROTS</b>	Cutworm	All States	700mL/ha or 70mL/100L water		Apply when pests appear. Spray soil to at least 20cm either side of row. Repeat as required.
	Wingless Grasshopper	NSW, Vic, Tas only	500mL/ha or 50mL/100L water		Spray areas of crop infested with grasshoppers. Apply also as a barrier across the line of advance.
	Light Brown Apple Moth	NSW only	500 to 700mL/ha		Apply at first sign of moths. Repeat at the higher rate if infestation re-occurs.
	Vegetable Weevil (Desianthan Weevil in WA)	NSW, WA only	800mL/ha		Apply at first sign of pests. Apply as a band over young plants and adjacent soil. One spray should be sufficient if applied at the seedling stage.
<b>CASAVA</b>	Cutworm	Qld only	700mL/ha or 70mL/100L water		Apply to seedlings and base of seedlings when observed.
<b>GINGER</b>			700 to 900mL/ha		Apply when cutworm damage is observed.
	African Black Beetle			Apply to soil if beetles or damage observed during late September to January. Use sufficient water to ensure soil is wet to 5cm.	
<b>PARSNIP</b>	Vegetable Weevil (Desianthan Weevil in WA)	NSW, WA only	800mL/ha	Apply at first sign of pests. Apply as a band over young plants and adjacent soil. One spray should be sufficient if applied at the seedling stage.	
<b>POTATOES</b>	Cutworm	All States	700mL/ha or 70mL/100L water	Apply when pests appear. Spray soil to at least 20cm either side of row. Repeat as required.	
	Wingless Grasshopper	NSW, Vic Tas only	500mL/ha or 50mL/100L water	Spray areas of crop infested with grasshoppers. Apply also as a barrier across the line of advance.	

**VEGETABLES: (continued)**

<b>CROP</b>	<b>PEST</b>	<b>STATE</b>	<b>RATE</b>	<b>WHP</b>	<b>CRITICAL COMMENTS</b>
<b>POTATOES</b> (continued)	Vegetable Weevil (Desianthan Weevil in WA)	NSW, WA only	800mL/ha	Nil	Apply at first sign of pests. Apply as a band over young plants and adjacent soil. One spray should be sufficient if applied at the seedling stage.
	African Black Beetle		3.0 to 6.0L/ha		Apply spray directly to the soil immediately prior to planting and incorporate to a depth of 15cm immediately. Use higher rate for heavy infestations.
			0.9 to 1.0L/ha at hilling up		Apply as a second spray as bands either side of plants at final hilling-up. Ensure thorough incorporation of spray into the hill. Use the lower rate for NSW and the higher rate for WA..
	White Fringed Weevil	NSW, Vic, WA Tas only	6.0L/ha		Apply spray directly to the soil immediately prior to planting and incorporate to a depth of 15cm immediately. Use the higher rate for heavy infestations.
		NSW only	0.9L/ha at hilling up		Apply as a second spray as bands either side of plants at final hilling-up. Ensure thorough incorporation of spray into the hill.
		WA only	1.0L/ha at hilling up		
	Wireworm	Vic only	6.0L/ha		Apply as a border spray before planting and incorporate thoroughly into soil.
<b>SWEDE, TURNIP</b>	Vegetable Weevil (Desianthan Weevil in WA)	Qld, WA only	70 to 100mL/100L water	Apply as required. Use higher rate where pest pressure is heavy.	
	Redlegged Earth Mite, Blue Oat Mite	NSW only	140 to 300mL/ha	Use the higher rate for severe infestations. Surrounding vegetation may need to be sprayed.	
<b>RADISHES, SWEET POTATO, TURNIPS</b>	Wingless Grasshopper	NSW, Vic, Tas only	500mL/ha or 50mL/100L water	Spray areas of crop infested with grasshoppers. Apply also as a barrier across the line of advance.	

**VEGETABLES: (continued)**

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
RADISHES, SWEET POTATO, TURNIPS (continued)	Vegetable Weevil (Desianthan Weevil in WA)	NSW, WA only	800mL/ha	NIL	Apply at first sign of pests. Apply as a band over young plants and adjacent soil. One spray should be sufficient if applied at the seedling stage.
	Cutworm	All States	700mL/ha or 70mL/100L water		Apply when pests appear. Spray soil to at least 20cm either side of row. Repeat as required.
STALK & STEM VEGETABLES  (Including Asparagus, Celery & Rhubarb)	Cutworm	All States	700mL/ha or 70mL/100L water	Asparagus, Celery 14 Days Others NIL	Apply when pests appear. Spray soil to at least 20cm either side of row. Repeat as required.
	Wingless Grasshopper	NSW, Vic Tas only	500mL/ha or 50mL/100L water		Spray areas of crop infested with grasshoppers. Apply also as a barrier across the line of advance.
	Vegetable Weevil (Desianthan Weevil in WA)	NSW, WA only	800mL/ha		Apply at first sign of pests. Apply as a band over young plants and adjacent soil. One spray should be sufficient if applied at the seedling stage.

**SOIL BAITS:**

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
COTTON, LUCERNE, MAIZE, SORGHUM, SUNFLOWER	False Wireworms, Brown Field Crickets, Cockroaches	Qld only	2.5kg cracked wheat or sorghum bait/ha	See WHP for crop involved	See General Instructions on bait preparation. Apply by ground or air.
	Earwigs		5.0kg cracked wheat or sorghum bait/ha		
COWPEAS, CHICKPEAS, MUNG BEANS, NAVY BEANS, PIGEON PEAS	False Wireworms, Wireworms		2.5kg cracked wheat or sorghum bait/ha	Nil	
COWPEAS, SOYBEANS	Brown Field Crickets		5.0kg cracked wheat or sorghum bait/ha		

**SOIL BAITS: (continued)**

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
STONE FRUIT	European Earwig	NSW only	5.0kg cracked wheat or sorghum bait/ha	14 Days	Apply 5kg of bait/ha in spring by fertiliser spreader. See <b>General Instructions</b> on preparation of baits.
STRAWBERRIES	Field Crickets, Mole Crickets	Qld only	10kg bran bait/ha		Apply in recently ratooned strawberry patches or newly planted runners when pests occur. Treat base of plants and inter-row preferably in late afternoon.
VEGETABLES (Including Legume, Cole, Root, Tuber, Bulb, Cucurbit, Stem, Stalk and Leafy vegetables)				See WHP For crop involved	Use as required. See <b>General Instructions</b> on bait mixing.
TURF	Crickets		2.5kg bait/ha	2G Days	Baits should only be used on turf farms not on recreational turf. See <b>General Instructions</b> for bait preparation.

**ORNAMENTALS, TURF AND MISCELLANEOUS:**

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
POTTED ORNAMENTALS	Scarab Beetles - Larvae	Qld only	20 to 40mL/100L water	Nil	Apply mixture as a pot drench and water through. Drenching may cause root damage and should be tested on a few plants before widespread treatment.
TURF	Crickets	Qld, NSW only	2.0L/ha or 5mL/5L water spot spray	2G Days	For spot spraying apply 30mL spray to each mound. In areas of high density a repeat application may be necessary to ensure thorough mound coverage.
	Funnel Ant				Apply to lawn when pests appear. Water in immediately after application.
	African Black Beetle	Qld, NSW, Vic, WA only	6.0L/ha or 60mL/100m <sup>2</sup>		Lightly water following application. Apply as late in the day as possible.
	Argentine Stem Weevil	NSW, Vic, Tas, SA, WA only	4.0L/ha or 40mL/100m <sup>2</sup>		Use sufficient water to give even coverage. Apply as late in the day as possible.
	Blackheaded Pasture Cockchafer		900mL/ha or 9mL/100m <sup>2</sup>		Apply when pests first appear.
Brown Pasture Looper		700mL/ha or 7mL/100m <sup>2</sup>			



**ORNAMENTALS, TURF AND MISCELLANEOUS:**

<b>CROP</b>	<b>PEST</b>	<b>STATE</b>	<b>RATE</b>	<b>WHP</b>	<b>CRITICAL COMMENTS</b>
<b>TURF</b> (continued)	Pasture Webworm	NSW, Vic, Tas, SA, WA only	700mL/ha or 7mL/100m <sup>2</sup>	2G Days	Spray at first sign of damage. Apply with ground-rig boom or mister. Apply as late in the day as possible.
	Lawn Armyworm	Qld, NSW, Vic, SA, WA only			Spray over total lawn area when infestation is present. When pests are moving treat strip over and in advance of infestation. Apply follow up treatments as required.
	Sod Webworm	All States	700mL/ha or 7mL/100m <sup>2</sup>		Apply as soon as pests appear. Repeat as required.
	Underground Grass Grub	NSW, Vic, SA, WA only	900mL/ha or 9mL/100m <sup>2</sup>		Apply when caterpillars are actively feeding. Spray before noticeable damage has occurred. Apply as late in the day as possible
	Crickets	Qld only	20mL/20L water		Apply as required preferably late in the day.
<b>DOMESTIC, COMMERCIAL AND INDUSTRIAL AREAS</b>	Argentine Ants	Vic, Tas, SA, NSW only	1.0L/100L water	N/A	Spray ant tracks, nests and other active areas. Apply to paths in continuous 30cm bands. Apply to base of buildings, walls, fences, rock work, trunks of trees and shrubs and other hard surfaces to height of 30cm.
<b>DOMESTIC AREAS</b>		WA only			<b>NOTE IN WA:</b> For domestic use only. All occurrences of Argentine Ants are to be reported to WA Dept. of Agriculture.

## **WITHHOLDING PERIODS:**

G = grazing, H = harvest

**Grain Sorghum, Lucerne** : DO NOT apply later than 2 days before harvest or graze or cut for stock food for 2 days after treatment.

**Turf** : DO NOT graze or cut for stock food for 2 days after treatment.

**Tomatoes** : DO NOT apply later than 3 days before harvest.

**Cole Crops, Curcurbits** : DO NOT apply later than 5 days before harvest.

**Avocado, Cotton, Sugarcane** : DO NOT apply later than 7 days before harvest.

**Cereals (except Grain Sorghum), Rice, Maize** : DO NOT apply later than 10 days before harvest or graze or cut for stock food for 2 days after treatment.

**Asparagus, Bananas, Celery, Citrus, Custard Apples, Grapes, Kiwi Fruit, Pome Fruits, Stone Fruits** : DO NOT apply later than 14 days before harvest.

**Mango** : DO NOT APPLY LATER THAN 21 DAYS BEFORE HARVEST.

**Cereals, Forage Crops, Grain Sorghum, Oilseeds, Pasture, Sugarcane** : DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 2 DAYS AFTER TREATMENT.

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

DO NOT graze or cut for stockfood for 4 weeks after application.

## **GENERAL INSTRUCTIONS:**

**MIXING:** Add the required amount of David Grays Chlorpyrifos 500 to water in the spray tank while stirring or agitating. Agitate while spraying.

**PREPARATION OF BRAN BAIT:** Add 10ml of product per kilogram of bran mixing with sufficient water to give a moist crumb structure. Allow to stand 3-4 hours before application.

**PREPARATION OF CRACKED WHEAT/SORGHUM BAITS:** Add 40ml of product and 50ml of sunflower oil per kilogram of cracked wheat or sorghum. Mix thoroughly. Gloves should be worn when preparing and applying baits.

## **APPLICATION:**

**GROUND:** When a per hectare rate is given, apply in sufficient water to give good coverage.

**AIRCRAFT:** For application by aircraft, apply in 10-50L of water per hectare.

**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 into the furrow at closure. Use a minimum of 20L of water/hectare. Use the higher rate under extreme pest pressure.

## **PRECAUTIONS:**

Seed treated with Chlorpyrifos 500 must not be used for human consumption, or be allowed to contaminate seed intended for human consumption.

## **RE-ENTRY PERIOD:**

**(a) 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.

**(b) Greenhouses:** Do not allow entry into greenhouses until spray deposits have dried and treated areas are adequately ventilated. If prior entry is required, limit duration of entry and wear cotton overalls buttoned to the neck and wrist (or equivalent clothing), chemical resistant gloves and half-facepiece respirator. 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:** Seed treated with Chlorpyrifos 500 must not be used for animal consumption or be allowed to contaminate seed intended for animal consumption. Seed should not be left exposed on the ground (particularly during sowing). Dangerous to Bees. DO NOT spray on any plants in flower while bees are foraging.

**PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT:** DO NOT feed or expose treated seed or bait to wildlife and domestic animals, particularly birds. Dangerous to fish. DO NOT contaminate dams, rivers, streams, ponds, waterways or drains with the chemical, used containers or bags which have held treated seed.

**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 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.

Options 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.

<b>SITUATION</b>	<b>RECOMMENDED BUFFER DISTANCE (M)</b>
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 25mm rain storm should be captured on farm for two days after application.

**INSECTICIDE RESISTANCE WARNING:**

<b>GROUP</b>	<b>1B</b>	<b>INSECTICIDE</b>
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For insecticide resistance management David Grays Chlorpyrifos 500 Insecticide is a Group 1B insecticide. Some naturally occurring insect biotypes resistant to David Grays Chlorpyrifos 500 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 David Grays Chlorpyrifos 500 Insecticide or other Group 1B insecticides are used repeatedly. The effectiveness of David Grays Chlorpyrifos 500 Insecticide on resistant individuals could be significantly reduced. Since occurrence of resistant individuals is difficult to detect prior to use, David Gray & Co. Pty. Ltd. accepts no liability for any losses that may result from the failure of David Grays Chlorpyrifos 500 Insecticide to control resistant insects.

David Grays Chlorpyrifos 500 Insecticide may be subject to specific resistance management strategies. For further information contact your local supplier or David Gray & Co. Pty. Ltd. representative.

**STORAGE AND DISPOSAL:** Store in the closed, original container, in a dry, well ventilated area, as cool as possible. DO NOT store for prolonged periods in direct sunlight. Keep away from foodstuffs. Treated seed, when stored, should be kept apart from other seed and the containers clearly marked to indicate that the contents have been treated with Chlorpyrifos 500. Containers which have held treated seed or bait should not be used for any other purpose. Triple or (preferably) pressure rinse containers before disposal. Add rinsings to the spray tank. Do not dispose of undiluted chemicals on-site. Break, crush or puncture and bury empty containers in a local authority landfill. If not available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, vegetation and roots. Empty containers and product should not be burnt.

**SAFETY DIRECTIONS:** Product is poisonous if absorbed by skin contact, inhaled or swallowed. Repeated minor exposure may have a cumulative poisoning effect. Obtain an emergency supply of atropine tablets 0.6mg. Avoid contact with eyes and skin. Will irritate the eyes and skin. Do not inhale vapour or spray mist. When opening the containers, preparing spray or using the prepared spray wear cotton overalls buttoned to the neck and wrist, washable hat, elbow-length PVC gloves and face shield or goggles. If product on skin, wash the area immediately with soap and water. After use and before eating, drinking or smoking wash hands, arms and face thoroughly with soap and water. After each days use wash gloves, face shield or goggles and contaminated clothing.

**FIRST AID:** If poisoning occurs contact a doctor or Poisons Information Centre. Ph. 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. 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 David Grays Chlorpyrifos 500 Insecticide, which is available from David Gray & Co. Pty. Ltd. on request, phone (08) 9337 4933 or refer their website [www.davidgray.com.au](http://www.davidgray.com.au).

NRA Approval Number: 42284/0901  
Batch Number:  
D.O.M.

Bar Code//////////

David Gray & Co. Pty. Ltd.  
2 Rawlinson Street  
O'CONNOR WA 6163  
Phone/ (08) 9337 4933  
ACN 008 671 127

**COMPATIBILITY:** As formulations of other manufacturer's products are beyond the control of David Gray & Co. Pty. Ltd. all mixtures should be tested prior to mixing commercial quantities.

**Chlorpyrifos 500 Insecticide** is compatible with the following products:

**Herbicides:** Atrazine, bromoxynil, Chlorsulfuron, Diclofop-methyl, Diuron, Flamprop-methyl, Fluometuron, Glyphosate, Paraquat + Diquat, Pendimethalin, Trifluralin.

**Insecticides and Miticides:** Acephate, Azinphos-methyl, Carbaryl, Cypermethrin, Deltamethrin, Demeton-S-Methyl, Diazinon, Dichlorvos, Dicofol, Dimethoate, Endosulfan, Fenvalerate, Maldison, Methidathion, Methomyl, Monocrotophos, Oils, Oxythioquinox, Parathion, Phosalone, Phosmet, Tetradifon, Winter Oil.

**Fungicides:** Benomyl, Chlorothalonil, Dodine, Thiram, Triadimefon.

**Fertilisers:** Diammonium Phosphate, Limestone, Monoammonium Sulphate, Potash, Sulphur Coated Urea, Triple Superphosphate, Urea.

**Chlorpyrifos 500 Insecticide** is incompatible with the following products:

**Herbicides:** Dicamba, MCPA, Tordon 50-D, Tordon 242 and 2,4,D.

**Fungicides:** Fixed Coppers, Liquid and Organic Coppers, Wettable Sulphur.

**Fertilisers:** Iron Sulphate, Manganese Sulphate, Zinc Sulphate.