

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

ALLFIRE ALPHA 100 INSECTICIDE

ACTIVE CONSTITUENT:
100 g/L ALPHA-CYPERMETHERIN
SOLVENT:
735g/L LIQUID HYDROCARBONS

GROUP	3A	INSECTICIDE
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CONTROLS INSECT PESTS OF CEREALS, COTTON, GRAIN LEGUMES, OILSEEDS, PASTURES, POME AND STONE FRUITS, TREES & ORNAMAENTALS, TOBACCO
& VEGETABLES AS SPECIFIED IN THE DIRECTIONS FOR USE TABLE

IMPORTANT: READ THE ATTACHED BOOKLET BEFORE USE

5,20,200 Litres

ALLFIRE ENTERPRISES PTY. LTD

1/61 DOWD ST
WELSHPOOL, WA, 6106
PH: 08 92585755
FX: 08 92585766
ABN: 37 097 970 280

PROTECTION OF LIVESTOCK

Dangerous to bees. DO NOT spray on any plants in flower while bees are foraging. ALPHA 100 is known to have a deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in early morning and late evening while bees are not foraging.

PROTECTION OF WILDLIFE, FISH, CRUSTACEAN AND ENVIRONMENT

Dangerous to fish and aquatic invertebrates such as yabbies. DO NOT contaminate dams, rivers, drains or streams with the chemical or used containers. Drift and run-off from treated areas may be hazardous to fish in adjacent sites.

STORAGE AND DISPOSAL

Do not store below 4°C. Store in the closed, original container, in a dry well-ventilated area, as cool as possible out of direct sunlight. Store in a locked room or place away from children, animals, food, foodstuffs, seed and fertilisers. Triple or (preferably) pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on-site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, puncture or bury empty container below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt

If the container is a returnable/refillable type, when empty, or contents no longer required, return the container to the point of purchase. This type of container remains the responsibility and property of Allfire Enterprises Pty Ltd.

SAFETY DIRECTIONS

Harmful if swallowed. Will irritate the eyes and skin. Facial skin contact may cause temporary facial numbness. Avoid contact with eyes and skin. Avoid inhaling vapour and spray mist. When preparing spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and a face shield or goggles. If product in eyes, wash it out immediately with 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 or goggles and contaminated clothing.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre (Ph.131 126). If swallowed, do NOT induce vomiting. Give a glass of water.

MATERIAL SAFETY DATA SHEET

Additional information is listed in the Material Safety Data Sheet, which is available from Allfire Enterprises Pty Ltd.

CONDITIONS OF SALE

The use of ALPHA 100 Insecticide being beyond the control of the manufacturer, no warranty expressed or implied is given by Allfire Enterprises Pty Ltd. regarding its suitability, fitness or efficiency for any purpose for which it is used by the buyer, whether in accordance with the directions or not and Allfire Enterprises Pty Ltd. accepts no responsibility for any consequence whatsoever resulting from the use of this product.

UN NO. 3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (CONTAINS ALPHA-CYPERMETHRIN) MARINE POLLUTANT
PG III	HAZCHEM 2W

Insert Miscellaneous Dangerous Goods 9 Diamond and Marine Pollutant symbol.

NRA Approval No:

Batch Number:

Date of Manufacture:

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& VEGETABLES AS SPECIFIED IN THE DIRECTIONS FOR USE TABLE

DIRECTIONS FOR USE BOOKLET

ALLFIRE ENTERPRISES PTY. LTD

1/61 DOWD ST
WELSHPOOL, WA, 6106
PH: 08 92585755
FX: 08 92585766
ABN: 37 097 970 280

DIRECTIONS FOR USE

Restrains: DO NOT APPLY IF RAINFALL IS EXPECTED WITHIN 6 HOURS OF APPLICATION

Crop	Pest	State	Rate	Withholding Period	Critical Comments
Cabbages, Cauliflowers, Brussels Sprouts, Broccoli, Kale, Kohl Rabi, Chinese Cabbage, Turnips	Cabbage White Butterfly (<i>Pieris rapae</i>) Cabbage Moth (<i>Plutella xylostella</i>) * <i>Helicoverpa</i> spp.	All States	Low Volume 400 mL/ha	1 day (Harvest)	Apply when pest populations indicate. When reinfestation is continuous, treatment every 7-10 days may be required. Add a non-ionic surfactant at its label rates. LOW VOLUME: Ground rig application: Apply in 100 to 600 L water per hectare as a fine spray with droplet size of 100 to 200 microns. For aerial application, apply in 20 to 60L water/ha with a droplet size of 100 to 150 microns. HIGH VOLUME: Use a droplet size of 200 to 400 microns. Apply 600 L spray mixture per hectare just after transplanting and increase gradually to 1000L/ha toward maturity. ULTRA LOW VOLUME: see ULV application section in this label. <i>Helicoverpa armigera</i> In Qld and NSW – follow the application directions for the pest above. Apply as required for pest incidence. Thorough and frequent crop checks are essential. Preferably apply to eggs. Apply to larvae only if they are less than 5mm long.
	Cluster Caterpillar (<i>Spodoptera litura</i>)	NSW, Vic, WA & ACT	High Volume 50 mL/100L Ultra Low Volume 400 mL/ha		
Canola	Native Budworm (<i>Helicoverpa punctigera</i>)	NSW, Vic, Tas, SA & WA only	200 or 300 mL/ha	21 days (cutting for harvest or stock feed or grazing)	DO NOT use more than a total of 400 mL/ha per season. For ULTRA LOW VOLUME use. See ULV application in this label. Inspect the crop regularly during and immediately after flowering. Apply when damaging pest numbers first appear on the crop. For aerial application, use a total volume of 30-35 L/ha and apply in the cooler part of the day. Use the higher rate if larvae larger than 10mm are present. Crops should be inspected as they emerge. Border sprays are required to control invading adults. Apply when cotyledons and leaves are being eaten or the plant lopped. Repeat as necessary. Apply according to pest incidence. Pre-emergence: Apply by ground rig only. Treat infested paddocks after sowing but prior to crop emergence when soil is moist. Monitor red legged earth mite numbers and re-treat if necessary. Do NOT apply as a ULV application. Apply when mite numbers reach damaging levels. DO NOT apply as a pre-emergence treatment. Do NOT apply as a ULV application.
	Tobacco Looper (<i>Chrysodeixis argentifera</i>)	NSW, Tas, SA, & Vic only			
	Vegetable Weevil (<i>Listroderes difficilis</i>)	NSW, ACT, Vic, Tas, SA & WA only	400 mL/ha		
	Cabbage White Butterfly (<i>Pieris rapae</i>), Cabbage Moth (<i>Plutella xylostella</i>)				
	Redlegged Earth Mite (<i>Halotydeus destructor</i>)	All States except NT & Qld	100 mL/ha		
	Redlegged Earth Mite (<i>Halotydeus destructor</i>) Blue Oat Mite (<i>Penthaleus major</i>)		50 mL/ha		
Cotton	Native Budworm (<i>Helicoverpa punctigera</i>)	Qld, NSW, WA & NT only		14 days (harvest)	For ULTRA LOW VOLUME use. See ULV application in this label. Apply as indicated by field checks using rates appropriate for the infestation level determined. Application should be timed to coincide with egg hatching and before larvae are in protected feeding sites. Apply when there are up to 75 eggs and/or up to 5 larvae less than 5mm long per 100 terminals. Apply when there are up to 150 eggs and/or up to 10 larvae less than 5mm long per 100 terminals and/or when larvae between 5 & 10mm are present. Apply when there are up to 150 eggs and/or more than 10 larvae less than 5mm long per 100 terminals and/or when larvae longer than 10mm are present. Preferably apply to eggs. Apply to larvae only if they are less than 5mm long. Apply when there are up to 75 eggs and/or up to 5 larvae less than 5mm long per 100 terminals. Apply when there are up to 150 eggs and/or up to 10 larvae less than 5mm long per 100 terminals. Apply when there are up to 150 eggs and/or more than 10 larvae less than 5mm long per 100 terminals. Apply when an average of 2 or more larvae are present per 100 bolls. It is essential to detect and treat infestations in the early stages before larvae are established or concealed in bolls deep in the canopy. Use the higher rate if larvae greater than 10mm are present. Best results are obtained by applying at egg hatch.
			300 mL/ha		
			400 mL/ha		
			500 mL/ha		
	* Cotton Bollworm (<i>Helicoverpa armigera</i>)	Qld, NSW, WA & NT only			
			300 mL/ha		
			400 mL/ha		
	Rough Bollworm (<i>Earias huegeli</i>)	NSW, NT, Qld, WA only			
			300 mL/ha		
			400 mL/ha		

Crop	Pest	State	Rate	Withholding Period	Critical Comments								
Field Peas	Native Budworm (<i>Helicoverpa punctigera</i>)	WA only	160 mL/ha	4 weeks (harvest)	For ULTRA LOW VOLUME use, see ULV application in this label. Apply to open, less dense crops when damaging numbers of newly hatched larvae first appear on the crop and repeat if necessary.								
		NSW, ACT, Tas, Vic, SA & WA only	200 or 300 mL/ha		Apply when damaging pest numbers first appear on the crop and repeat if necessary. Use the higher rate if larvae longer than 10mm are present. Best results are obtained by applying at egg hatch.								
	Pea Weevil (<i>Bruchus pisorum</i>)	NSW, ACT, Vic, SA & WA only	160 or 200 mL/ha		Apply during flowering prior to egg laying when adult weevil population reaches 1 or more per 25 sweeps of a sweep net. Use the higher rate for longer residual control.								
			75 mL/ha		Check emerging and established crops in the late afternoon and evening for caterpillars crawling on the soil surface and feeding on the seedlings. Apply product in late afternoon or evening.								
	Cutworm (<i>Agrotis spp.</i>)	NSW, Vic, Tas, SA & WA only	100mL/ha		Pre-emergence: Apply by ground rig only. Treat infested paddocks after sowing but prior to crop emergence when soil is moist. Monitor red legged earth mite populations and re-treat as necessary. DO NOT use as a ULV application.								
	Redlegged Earth Mite (<i>Halotydeus destructor</i>)		50 mL/ha		Apply when mites reach damaging levels. DO NOT apply as a pre-emergence treatment. DO NOT use as a ULV application.								
Grapevines (non-bearing)	Pink Cutworm (<i>Agrotis munda</i>) Apple Weevil (Curculio beetle) (<i>Otiorynchus cribricollis</i>) Garden Weevil (<i>Phlyctinus callosus</i>)	NSW, Vic, Tas, SA & WA only	100mL / 100 L	-	Monitor young vines during Spring and early Summer and apply at the first sign of leaf damage. Spray the leaves, canes and the soil around each vine to a diameter of 30cm, 70-80 mL of dilute spray should be sufficient for each vine. If pest infestation persist, a second application may be required after three weeks.								
			Lettuce	<i>Helicoverpa</i> spp.	All States	Low Volume 400mL/ha High Volume 50mL/100L	3 days (harvest)	Thoroughly and regularly check the crop. Apply at first sign of pest activity. Preferably apply to eggs. Apply to <i>H. armigera</i> ONLY if larvae are less than 5mm long. Repeat according to pest incidence.					
								Linola	Native Budworm (<i>Helicoverpa punctigera</i>)	WA only	160 or 200 mL/ha	12 weeks (harvest)	DO NOT apply more than a total of 400 mL/ha per season to any one crop. For ULTRA LOW VOLUME use. See ULV application in this label. Inspect the crop regularly during and immediately after flowering. Apply when damaging pest numbers first appear on the crop. For aerial application, apply during the cooler part of the day in a total volume of 30-35 L/ha. Use the higher rate if larvae longer than 10mm are present. Refer to application section for water rates.
													Linseed
Cutworms (<i>Agrotis spp.</i>)	NSW, ACT, SA, Tas only	75 mL/ha	Check emerging and establishing crops in the late afternoon and evening for caterpillars crawling on the soil surface and feeding on the seedlings. Apply product in late afternoon or evening.										
Lucerne (Seed and Forage crops)	Native Budworm (<i>Helicoverpa punctigera</i>)	NSW, Vic, Tas, SA & WA only	160 mL/ha	14 days (grazing or cutting for stock feed)	For ULTRA LOW VOLUME use, see ULV application in this label. DO NOT apply more than one application per cut or grazing for animal feed. Apply when pest populations reach economically damaging levels. Apply to larvae less than 5mm in length.								
	Green Mirid (<i>Creontiades dilutus</i>)				Do NOT apply more than one application per cut or grazing for animal feed. Apply when pest populations reach economically damaging levels.								

Crop	Pest	State	Rate	Withholding Period	Critical Comments
Lupins	Native Budworm (<i>Helicoverpa punctigera</i>)	NSW, ACT, Vic, SA only	200 or 300 mL/ha	4 weeks (harvest)	DO NOT apply more than a total of 600mL/ha per season to any one lupin crop. For ULTRA LOW VOLUME use. See ULV application in this label. Apply when damaging pest numbers first appear on the crop and repeat if necessary. Use the higher rate if larvae longer than 10mm are present. Best results are obtained by spraying at egg hatch.
		WA only	120ml or 200 mL/ha		Spraying should be timed to precede the first visible damage to the pods. Use the higher rate when the infestation is severe, or when residual activity is required.
	Cutworm (<i>Agrotis spp.</i>)	NSW, ACT, Vic, Tas, SA & WA only	75 mL/ha		Check emerging and establishing crops in the late afternoon and evening for caterpillars crawling on the soil surface and feeding on the seedlings. Spray in the late afternoon or evening.
	Common Armyworm (<i>Mythimna convecta</i>) Southern Armyworm (<i>Persectania ewingii</i>)	NSW & ACT only	240 mL/ha		Spray in the cool of the day (late afternoon) when larvae are most active.
	Redlegged Earth Mite (<i>Halotydeus destructor</i>)	NSW, Vic, Tas, SA & WA only	100mL/ha		Pre-emergence: Apply by ground rig only. Treat infested paddocks after sowing but prior to crop emergence when soil is moist. Monitor red legged earth mite numbers and re-treat if necessary. Do NOT apply as a ULV application.
	Redlegged Earth Mite (<i>Halotydeus destructor</i>) Blue Oat Mite (<i>Penthaleus major</i>)		50 mL/ha		Apply when mite numbers reach damaging levels. Do NOT apply as a pre-emergence treatment. Do NOT use as a ULV application.
Maize	Corn Earworm (<i>Helicoverpa armigera</i>)	Qld, NSW, ACT, Vic, NT only	300 or 400 mL/ha	7 days (harvest)	For ULTRA LOW VOLUME use. See ULV application in this label. Thoroughly and regularly check the crop. Apply from early silking according to pest incidence. Use the higher rate if larvae longer than 10mm are present . In Qld, NSW & NT, preferably apply to eggs or apply to larvae only if they are less than 5mm long.
	Native Budworm (<i>Helicoverpa punctigera</i>)	All states			Thoroughly and regularly check the crop. Apply when the infestation reaches economically damaging levels and repeat as required. Best results will be obtained by apply at egg hatch. Use the higher rate if larvae longer than 10mm are present.
Beans (Mung and Navy)	Native Budworm (<i>Helicoverpa punctigera</i>)	Qld,NSW, ACT & NT only	300 or 400 mL/ha	7 days (harvest)	For ULTRA LOW VOLUME use. See ULV application in this label. Thoroughly and regularly check the crop. Small larvae are easier to kill than large larvae. Apply when the number of larvae feeding on flowers or pods reaches 1 to 2 per metre of row. Repeat as required. Best results will be obtained by apply at egg hatch. Use the higher rate if larvae longer than 10mm are present or when canopy is dense.
	* Corn Earworm (<i>Helicoverpa armigera</i>)				Thoroughly and regularly check the crop. Apply when the infestation reaches economically damaging levels and repeat as required. Preferably apply to eggs. In NSW & Qld, apply to larvae only if they are less than 5mm long. Use the higher rate when pest pressure is high.

Crop	Pest	State	Rate	Withholding Period	Critical Comments
(Both legume & grass based pastures)	Wingless Grasshopper (<i>Phaulacridium vittatum</i>)	All States	160 mL/ha	3 days (grazing)	Do not use more than a total of 320 mL/ha per season. For ULTRA LOW VOLUME use. See ULV application in this label. Apply to infested areas and repeat as necessary. Spraying is most effective on newly emerged hoppers before they begin dispersing. Spray in the warmer parts of the day when hoppers are exposed. Later sprays should be applied before the start of egg laying. Good coverage is essential.
	Brown Pasture Looper (<i>Ciampa arietara</i>)	Vic,SA,Tas, WA,NSW only	50 mL/ha	14 days (cut for stock feed)	Apply when pest populations reach economically damaging levels.
	Blackheaded Pasture Cockchafer (<i>Aphodius tasmaniae</i>)	Vic,SA,Tas, & NSW only	100 mL/ha		Spraying is most effective when larvae are detected and treated early. Suspect paddocks should be dug after the first substantial rain in April/May and inspected to ensure grubs are present in sufficient numbers to warrant treatment. Spraying after June will give poorer results.
	Redlegged Earth Mite (<i>Halotydeus destructor</i>)	NSW,ACT,SA, WA,Vic,Tas only	100mL/ha		Pre-emergence: Apply by ground rig only. Treat infested paddocks after sowing but prior to crop emergence when soil is moist. Monitor red legged earth mite numbers and re-treat if necessary. Do NOT apply as a ULV application.
	Redlegged Earth Mite (<i>Halotydeus destructor</i>) Blue Oat Mite (<i>Penthaleus major</i>)		50 mL/ha		Apply when mite numbers reach damaging levels. DO NOT use as a ULV application. Autumn/Winter: Apply 4 to 7 weeks after the opening rains in late autumn / early winter when RLEM are present (2-3 weeks after egg hatch occurs). This product is rainfast after spray deposits have dried on the leaf surface. This product can be mixed with herbicides used in the winter cleaning of sub-clover pastures. See "compatibility" section of this label. Spring: If RLEM / BOM mite numbers increase in the spring, spray when damage is observed and again before diapause egg production begins. This product can be mixed with herbicides used for spray topping pastures. See "compatibility" section of this label. DO NOT apply as a pre-emergence treatment.
Pome Fruit: Apples Pears	Apple Weevil (<i>Otiorhynchus cribricollis</i>) Garden Weevil (<i>Phlyctinus callosus</i>)	NSW,Vic,SA & WA only	100 mL / 100L water	14 days (harvest)	Spray approximately 1-2 litres of solution onto the crotch, trunk and the soil at the base of each tree at peak weevil emergence. This is usually late October-late November for garden weevil and late November-mid December for apple weevil. Monitor weevil emergence using a single sided cardboard trunk band. Continue monitoring after spraying as a second spray 3-4 weeks later may be needed.
Rice (both aerial and drill sown rice)	Common Armyworm (<i>Mythimna convecta</i>)	NSW only	200 mL/ha	7 days	DO NOT apply more than 400mL/ha per season to any one crop. Inspect crop regularly for presence of grubs from flowering onwards. Apply when rice-damaging pest numbers first appear. Apply by aircraft in 20-30 litres water/ha to drained fields only. Spray in the cool of the day (early morning or late afternoon) when larvae are active. Monitor crops closely and re-treat if necessary. Poor control may occur in crops that have lodged. See application section for correct water rates.
Soybeans	Native Budworm (<i>Helicoverpa punctigera</i>)	Qld,NSW, ACT,WA & NT only	300 or 400 mL/ha	7 days	For ULTRA LOW VOLUME use, see ULV application in this label. Thoroughly and regularly check the crop. Apply when flower or pod feeding numbers reach 1-2 per metre of row. Repeat as required. Use the higher rate if larvae longer than 10mm are present. Best results are obtained by applying at egg hatch.
	Corn Earworm (<i>Helicoverpa armigera</i>)				Thoroughly and regularly check the crop. Apply when the numbers are sufficient to cause economic damage. Preferably apply to eggs. In NSW & Qld, apply to larvae only if they are less than 5mm long. Repeat as required. Use the higher rate when pest pressure is high.
Stone Fruit: Apricots Nectarines Peaches Plums	Apple Weevil (<i>Otiorhynchus cribricollis</i>) Garden Weevil (<i>Phlyctinus callosus</i>)	WA only	100 mL / 100L water	14 days (harvest)	Spray approximately 1-2 litres of solution onto the crotch, trunk and the soil at the base of each tree at peak weevil emergence. This is usually late October-late November for garden weevil and late November-mid December for apple weevil. Monitor weevil emergence using a single sided cardboard trunk band. Continue monitoring after spraying as a second spray 3-4 weeks later may be needed.

Crop	Pest	State	Rate	Withholding Period	Critical Comments
Sorghum	Corn Earworm (<i>Helicoverpa armigera</i>) Native Budworm (<i>Helicoverpa punctigera</i>)	Qld, NSW, ACT, & NT only	300 or 400 mL/ha	7 days (harvest)	For ULTRA LOW VOLUME use. See ULV application in this label. Crop checking should commence when the head emerges from the boot and continue at daily intervals until the end Of flowering for midge and at weekly intervals until maturity for <i>H. armigera</i> . DO NOT apply to tight head varieties. Apply when there are 2 or more actively feeding larvae per head, or when numbers Are sufficient to cause economic damage. Use the higher rate if longer residual control is required. Preferably apply to eggs. Apply to <i>H. armigera</i> larvae only if they are less than 5mm long. Repeat as required.
	Sorghum Midge (<i>Contarinia sorghicola</i>)		100 or 200 mL/ha		Apply when midge numbers reach 1-2 per head, from emergence to completion of flowering. Repeat as required. Use the higher rate for increased residual protection.
Sunflowers	Native Budworm (<i>Helicoverpa punctigera</i>)	Qld, NSW, NT, Vic, & ACT only	300 or 400 mL/ha	21 days (harvest)	TO PROTECT BEES and ensure adequate pollination, application during flowering should be avoided. If application is necessary at flowering, apply early morning or late afternoon when bees are not actively foraging. For Ultra Low Volume use, see ULV application section of this label. Crop checking should be aimed to detect larvae as they hatch. Small larvae are easier to kill than large larvae. Apply when an average of 2-3 larvae are present per head or when economic damage is occurring. Repeat as required. Apply before the heads turn downwards to ensure adequate coverage. Use the higher rate when larvae longer than 10mm are present. Best results will be obtained by applying at egg hatch.
	Corn Earworm (<i>Helicoverpa armigera</i>)				Thoroughly and regularly check the crop. Apply when numbers are sufficient to cause economic damage. Preferably apply to eggs. In NSW and Qld apply to larvae only if they are less than 5mm long, repeat as required. Use the higher rate under heavy pest pressure.
	Grey Cluster Bug (<i>Nysius clevelandensis</i>) Rutherglen Bug (<i>Nysius vinitor</i>)				Apply from budding when adult numbers per plant reach 10 to 15 in dry-land crops, and 20-25 in irrigated crops. After flowering, apply when adult numbers on the face of the head reach 20 to 25. Repeat as required. The higher rate should be used when the numbers are very high.
	Rutherglen Bug (<i>Nysius vinitor</i>)	Vic, Tas, WA only	250 mL/ha		Apply from budding when adult numbers per plant reach 10 to 15 in dry-land crops, and 20-25 in irrigated crops. After flowering, apply when adult numbers on the face of the head reach 20 to 25. Repeat as required.
Sweet Corn	Corn Earworm (<i>Helicoverpa armigera</i>) Native Budworm (<i>Helicoverpa punctigera</i>)	All states	300 or 400 mL/ha	7 days (harvest)	For ULTRA LOW VOLUME use. See ULV application in this label. Thoroughly and regularly check the crop. Cob damage tolerated is variable according to market requirements. For fresh market corn, spray at tassel emergence, then at intervals of 5 to 8 days until silks wither. For processing corn and maize apply at early silking. Larvae in protected feeding sites within the cob are not effectively controlled. Apply before this situation occurs. Best results will be obtained by applying at egg hatch. Use the higher rate if larvae longer than 10mm are present. To help contain pyrethroid resistance in <i>Helicoverpa armigera</i> in summer crops, do NOT apply to corn earworm longer than 5mm.
Tobacco	Native Budworm (<i>Helicoverpa punctigera</i>) Tobacco Budworm (<i>Helicoverpa armigera</i>)	Vic & WA only	30 or 40 mL/100L	7 days (harvest)	Apply from just after transplanting on a 7 to 10 day schedule, according to pest incidence. Apply as a medium to fine spray using hollow and/or solid cone nozzles. The spray volume should be gradually increased as the plants grow, from 200L/ha just after transplanting to 1000L/ha at maturity. Use the higher rate when larvae longer than 10mm are present or when egg laying is intense.

Crop	Pest	State	Rate	WHP	Critical Comments	
Tomatoes (Bush and Trellis)	Native Budworm (<i>Helicoverpa punctigera</i>)	All States	ULTRA LOW VOLUME: 300 or 400 mL/ha	1 day (harvest)	Do NOT apply to trellis tomatoes by aircraft. Apply on a 7 day schedule while pests are active. Use the middle rate when pest activity is high and/or larvae between 10 and 20mm in length are present. Use the highest rate when larvae longer than 20mm are present and/or when interruption of the schedule enables a very severe infestation to develop. ULTRA LOW VOLUME: see ULV application section of this label. LOW VOLUME: By Ground Rig: apply in 100 to 400L of water per hectare as a fine spray. By Aircraft: apply in a minimum of 10L of water per hectare as a fine spray of 100 to 150 microns VMD. HIGH VOLUME: Apply as a medium to fine spray. Gradually increase the spray volume as the plant grows, from 200L/ha just after transplanting establishment to 1000L/ha at maturity.	
	Tomato Grub (<i>Helicoverpa armigera</i>)	Vic, Tas, SA, WA only	LOW VOLUME: 200, 300 or 400 mL/ha			
	Cluster Caterpillar (<i>Spodoptera litura</i>)	Qld,NSW,WA, ACT & NT only	HIGH VOLUME: 20, 30 or 50mL/100L			
	Tomato Grub (<i>Helicoverpa armigera</i>)	Qld, NT, NSW only	ULTRA LOW VOLUME: 300 mL/ha LOW VOLUME: 300mL/ha HIGH VOLUME: 30mL/100L			Thoroughly check the crop at 2-3 day intervals from transplanting / emergence. Apply according to incidence. Preferably apply to eggs. Apply to larvae only if they are less than 5mm long. Apply using the methods described for native budworm above.
	Plague Thrips (<i>Thrips imaginis</i>)	Qld,NSW,Vic, Tas,WA,ACT & NT only	ULTRA LOW VOLUME: 130 mL/ha LOW VOLUME: 130 mL/ha HIGH VOLUME: 18mL/100L			The crop should be frequently checked when it is flowering for the presence of the pest. Apply when the infestation reaches an economically damaging level using the application methods as described above.

Crop	Pest	State	Rate	Withholding Period	Critical Comments
Winter cereals	Cutworms (<i>Agrotis spp.</i>)	NSW, ACT, Vic, SA and WA only	75mL/ha	7 days (harvest) 14 days (stubble grazing)	DO NOT apply more than a total of 540mL/ha per season to any one crop. For ULTRA LOW VOLUME use, see ULV application section in this label. Check emerging and establishing crops in the late afternoon and evening for caterpillars crawling on the soil surface and feeding on the seedlings. Spray in the late afternoon or evening.
		Qld only	75 or 150 mL/ha		
	Pasture Webworm (<i>Hednota spp.</i>)	NSW, Vic, SA & WA only	75 mL/ha		In Qld use the higher rate when the infestation is severe, or when there are larvae longer than 10mm, or when longer residual activity is required.
	Redlegged Earth Mite (<i>Halotydeus destructor</i>)	NSW, ACT, Vic, SA, Tas & WA only	100mL/ha		DO NOT apply as a ULV application. Pre-planting: May be applied pre-planting with knockdown herbicides. Apply from the last week of May when larvae have emerged. Do Not apply to dense pasture. All pasture should be closely grazed prior to application to ensure adequate spray penetration. Apply in a minimum of 100L of water per hectare. Apply at first sign of pest infestation. Repeat as necessary. Post crop emergence: Inspect crop regularly from emergence and spray at first sign of pest activity. Repeat as required.
	Redlegged Earth Mite (<i>Halotydeus destructor</i>) Blue Oat Mite (<i>Penthaleus major</i>)		50 mL/ha		Pre-emergence: Apply by ground rig only. Treat infested paddocks after sowing but prior to crop emergence when soil is moist. Monitor red legged earth mite numbers and re-treat if necessary. Do NOT apply as a ULV application.
	Aphids (<i>Rhopalosiphum spp.</i>) (barley yellow dwarf virus Vectors)		125 mL/ha		Apply when mite numbers reach damaging levels. Spray seedling crops if silvering or whitening (bleaching) of leaves is causing a reduction in crop growth. If possible, spray on a calm, mild morning when mites are actively feeding on crop leaves. DO NOT apply as a pre-emergence treatment. DO NOT use as a ULV application.
	Common Armyworm (<i>Mythimna convecta</i>) Southern Armyworm (<i>Persectania ewingii</i>)	All States	240 mL/ha		To control aphids, spray should be applied at 3 and 7 weeks after emergence to reduce aphid colonization and spread of Barley Yellow Dwarf virus. This will also reduce the effect of feeding aphid damage.
Eucalypts	Adults and larvae of Eucalyptus Leaf Beetle (<i>Chrysophtharta bimaculata</i>)	Tas only	250 mL/ha		Apply before "head lopping" occurs when larval numbers exceed two or more per square metre. Spray in the cool of the day (late afternoon) when larvae are most active. Spray to achieve good crop penetration. This rate is effective against larvae up to 20mm in length. Monitor crops regularly and re-treat if necessary. Poor control may occur in crops that have lodged. See application section for correct water rates.
Banksias Ornamentals	Banksia Moth (<i>Danima banksiae</i>)	WA only	20 mL/100L		Apply by fixed wing aircraft or by helicopter using hydraulic nozzles or micron-air equipment to the crowns of eucalypt trees. Micron-air application in 5 litres of water/ha has proved effective. Apply before insect damage causes severe defoliation. Treatment will control small and large larvae as well as adult beetles. For ULTRA LOW VOLUME use. See ULV application in this label. Apply on a regular program at 2 week intervals at early flower development. Commence spraying when blooms are immature and continue until flowers are fully developed.

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

WITHHOLDING PERIOD

Broccoli, Brussels Sprouts, Cabbages, Cauliflowers, Chinese Cabbage, Kale, Kohlrabi, Tomatoes, Turnips: Do not harvest for 1 day after application.

Lettuce: Do not harvest for 3 days after application.

Sorghum, Soybeans, Mung Beans, Navy Beans, Sweet Corn, Maize, Rice & Tobacco: Do not harvest for 7 days after application.

Winter Cereals: Do not harvest for 7 days after application. Do not graze treated stubble for 14 days after application.

Lucerne: Do not graze or cut for stock feed for 14 days after application.

Cotton, Linseed, Stone & Pome fruit: Do not harvest for 14 days after application.

Canola: Do not cut and windrow for harvest for 21 days after application. Do not graze or cut for stockfeed for 21 days after application.

Sunflowers: Do not harvest for 21 days after application.

Field Peas & Lupins: Do not harvest for 4 weeks after application.

Linola: Do not harvest for 12 weeks after application.

Pastures: Do not graze for 3 days after application. Do not cut for stock feed for 14 days after application.

GENERAL INSTRUCTIONS

ALPHA 100 is a contact and residual insecticide. It can be used as a protective treatment when applied at regular intervals or as a knockdown treatment to control existing larvae. Best results will be obtained by spraying at egg hatch. Thorough coverage is essential to ensure adequate control. Apply during the cooler parts of the day or night.

The product can be applied mixed either with water carrier or oil based bulking agents such as DC Tron Cotton Spray Oil or compatible ULV Products.

MIXING:

Low Volume and High Volume applications by ground rig or aircraft when ALPHA 100 is applied with water carrier: Add the required quantity of ALPHA 100 to water in the spray tank and mix thoroughly. Maintain agitation during mixing and application.

Ultra Low Volume (ULV) applications by aircraft when ALPHA 100 is applied with oil based bulking agents: This product can be mixed with DC Tron Cotton Spray Oil or other compatible products (See COMPATIBILITY Section). First add the mixing partner to the spray tank and then, with the agitator in motion, add the required quantity of ALPHA 100 direct to the spray tank. DO NOT mix with water and ensure that no water is in the spraying system.

APPLICATION:

Low Volume and High Volume applications by ground rig or aircraft when ALPHA 100 is applied with water carrier: ALPHA 100 can be applied by ground or aircraft with a water carrier. Thorough coverage is essential to ensure adequate control. Always apply with a non-ionic surfactant unless detailed on the label of a tank mix partner. Apply during the cooler parts of the day or night.

Ground Application – (water carrier): For low volume spraying of field crops with ground rigs, use a total volume of 50-200 L/ha except for sweet corn, tomatoes and tobacco where higher volumes should be used. Drop arms should be used on ground rigs in row crops taller than 300mm. The application should be made as a fine spray, preferably using hollow cone nozzles and a droplet size of 150-200 microns.

Aerial Application – (water carrier): DO NOT apply to trellis tomatoes by aircraft. Use a minimum spray volume of 20L/ha. For spring/early summer application to cereals, linola, canola, rice and to other dense crops, apply in a total spray volume of 30 to 35 L/ha. If possible, spray in a crosswind. Avoid spraying in calm conditions or when wind is light and variable direction. Apply as a spray of 100-150 microns VMD.

Ultra Low Volume (ULV) application by aircraft: ALPHA 100 mixed with DC Tron Cotton Spray Oil or other compatible products should be applied in a minimum total spray volume of 1.5 L/ha. It should only be applied by aircraft with suitable equipment to provide a droplet size of approximately 80-100 microns VMD. Applications should be made during the cooler parts of the day or at night. Avoid application in calm or very windy conditions. Preferably apply in light to moderate crosswinds.

COMPATIBILITY

Low Volume and High Volume Application by ground rig or aircraft when ALPHA 100 Insecticide is applied with water as a carrier.

This product is compatible with, D-C Tron Cotton Spray Oil, Dithane¹ M-45, dicamba, Kocide¹, Nudrin¹ 225, Parathion 500EC, Parathion¹ M500, Predator¹ 300, Ridomil¹, Select¹, dimethoate, diquat, glyphosate, Tigrex¹, Jaguar¹, simazine, Spinnaker¹, 2,4-D Amine, 2,4-D Ester, 2,4-DB, MCPA, paraquat,

Do NOT mix this product with wettable powders and water dispersible granules BEFORE addition to the spray tank. This product can be mixed with Dithane WDG providing the mixture is agitated efficiently and used immediately.

Ultra Low Volume by aircraft.

This product should only be mixed with specific ULV formulations or other insecticides eg. Predator 300, and PBO synergists, when mixed according to the directions on the PBO synergist labels.

RESISTANCE WARNING

GROUP	3A	INSECTICIDE
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For insecticide resistance management ALLFIRE ALPHA 100 Insecticide is a Group 3A insecticide.

Some naturally occurring insect biotypes resistant to ALLFIRE ALPHA 100 Insecticide and other Group 3A Insecticides may exist through normal genetic variability in any insect population. The resistant individuals can eventually dominate the insect population if ALLFIRE ALPHA 100 Insecticide or other Group 3A insecticides are used repeatedly. The effectiveness of ALLFIRE ALPHA 100 Insecticide on resistant individuals could be significantly Reduced.

Since occurrence of resistant individuals is difficult to detect prior to use, Allfire Enterprises Pty Ltd accepts no liability for any losses that may result from the failure of ALLFIRE ALPHA 100 Insecticide to control resistant insects. ALLFIRE ALPHA 100 Insecticide may be subject to specific resistance strategies. For further information contact your local supplier, Allfire Enterprises Pty Ltd representative or local agricultural department of agriculture agronomist.

In NSW and Qld, application of this product to *Helicoverpa armigera* larvae longer than 5mm may not only be ineffective but it may increase the level of synthetic pyrethroid resistance. This product should NOT be used to treat infestations that were not controlled by an earlier application of it or another synthetic pyrethroid. Infestations not controlled by this product should be treated with another insecticide from another chemical group. Application of this product with an insecticide from another chemical group such as Nudrin¹ will assist with the management of synthetic pyrethroid resistant *Helicoverpa armigera*.

PROTECTION OF LIVESTOCK

Dangerous to bees. DO NOT spray on any plants in flower while bees are foraging. ALPHA 100 is known to have a deterrent effect on foraging bees for a short period of time after spraying. Risk to bees is reduced by spraying in early morning and late evening while bees are not foraging.

PROTECTION OF WILDLIFE, FISH, CRUSTACEAN AND ENVIRONMENT

Dangerous to fish. DO NOT contaminate dams, rivers, drains or streams with the chemical or used containers. Drift and run-off from treated areas may be hazardous to fish in adjacent sites.

STORAGE AND DISPOSAL

Do not store below 4°C. Store in the closed, original container, in a dry well-ventilated area, as cool as possible out of direct sunlight. Store in a locked room or place away from children, animals, food, foodstuffs, seed and fertilisers. Triple or (preferably) pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on-site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, puncture or bury empty container below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt

If the container is a returnable/refillable type, when empty, or contents no longer required, return the container to the point of purchase. This type of container remains the responsibility and property of Allfire Enterprises Pty Ltd.

SAFETY DIRECTIONS

Harmful if swallowed. Will irritate the eyes and skin. Facial skin contact may cause temporary facial numbness. Avoid contact with eyes and skin. Avoid inhaling vapour and spray mist. When preparing spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and a face shield or goggles. If product in eyes, wash it out immediately with 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 or goggles and contaminated clothing.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre (Ph.131 126). If swallowed, DO NOT induce vomiting. Give a glass of water.

MATERIAL SAFETY DATA SHEET

Additional information is listed in the Material Safety Data Sheet, which is available from Allfire Enterprises Pty Ltd.

CONDITIONS OF SALE

The use of ALLFIRE ALPHA 100 Insecticide being beyond the control of the manufacturer, no warranty expressed or implied is given by Allfire Enterprises Pty Ltd. regarding its suitability, fitness or efficiency for any purpose for which it is used by the buyer, whether in accordance with the directions or not and Allfire Enterprises Pty Ltd. accepts no responsibility for any consequence whatsoever resulting from the use of this product.

IN A TRANSPORT EMERGENCY DIAL 000 POLICE OR FIRE BRIGADE

¹Not a trademark of Allfire Enterprises Pty Ltd.

NRA APPROVAL NO: