

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

Rygel

# Alpha-Cyber 100 EC Insecticide

Active Constituent: 100 g/L ALPHA-CYPERMETHRIN

Solvent: 735g/L LIQUID HYDROCARBON

For control of certain insect pests in Cereals, Rice, Cotton, Sunflowers, Sweetcorn, Maize, Soy, Navy and Mung beans, Sorghum and Tomatoes.

GROUP	<b>3A</b>	INSECTICIDE
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APVMA Approval No:

## RESISTANCE STRATEGY

*Helicoverpa armigera* (Heliopsis) resistance Northern New South Wales and Queensland. To help contain pyrethroid resistance in *Helicoverpa armigera*, the Summer Crop Insecticide strategy as developed by the Queensland Department of Primary Industries and the New South Wales Department of Agriculture and Fisheries should be adhered to. Failure to observe the strategy may result in widespread resistance affecting the future viability of summer cropping.

## EXCLUSION OF LIABILITY

Rygel Alpha-Cyber 100 EC contains the pyrethroid insecticide, alpha-cypermethrin. Some *Helicoverpa spp.* in Australia have been found resistant to pyrethroids including alpha-cypermethrin and resistance may also show in other insect pests. Resistance results in the loss of efficacy of the product and thus in yield losses. Since the occurrence of resistance cannot be foreseen, Rygel Australia Pty Ltd accepts no responsibility for any loss or damage to crops resulting from the failure of Rygel Alpha-Cyber 100 EC to control resistant strains. Where Rygel Alpha-Cyber 100 EC or other pyrethroid insecticides have previously been found to be ineffective in controlling the insect pests claimed in this label the Rygel Alpha-Cyber 100 EC should not be used. Advice as to alternative treatments should be sought in such cases.

## GENERAL INSTRUCTIONS

Rygel Alpha-Cyber 100 EC is a contact and residual insecticide. It can be used as a protective agent 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.

## GROUND APPLICATION

For low volume spraying off field crops with ground rigs, use a total volume of 500 or 200 L/ha except for sweet corn, tomatoes and tobacco - where higher volumes should be used. Drop arms should

Pack Size:

be used on ground rigs in row crops taller than 300 mm. The application should be made as a fine spray, preferably using hollow cone nozzles and a droplet size of 150 or 200 microns.

## AERIAL APPLICATION

Use at least 10 L/ha of total spray volume unless advised otherwise. If possible spray in a cross wind. Avoid spraying in calm conditions or when wind is light and variable.

## MIXING

Add the required quantity to water in the spray tank and mix thoroughly. Maintain agitation during mixing and application. Product is compatible with diesel dilution.

## PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

Dangerous to fish. **DO NOT** contaminate dams, ponds, rivers, waterways and drains with this chemical or used container. Do not spray directly onto humans, exposed food or food utensils.

## PROTECTION OF LIVESTOCK

Dangerous to bees. Do not spray any plant in flower while bees are foraging.

## STORAGE AND DISPOSAL

Store in the closed, original container in a cool, dry, well-ventilated area. Do not store for prolonged periods in direct sunlight or below 4°C. Triple or (preferably) pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. Break, crush, puncture and bury empty containers in a local 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 harmful if swallowed. Will irritate the eyes and skin. Facial skin contact may cause temporary facial numbness. Avoid contact with eyes

and skin. Do not inhale vapour or spray mist. When preparing spray, wear cotton overalls buttoned to the neck and wrist, a washable hat, elbow-length PVC gloves and face shield or goggles. If product in eyes, wash it out immediately with water. After use and before eating, smoking or drinking, 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. Phone Australia 13 11 26. If swallowed, do NOT induce vomiting. Give a glass of water.

#### **MSDS**

Additional information is listed in the Material Safety Data Sheet, which is available from the supplier.

#### **CONDITIONS OF SALE**

The use of Rygel Alpha-Cyber 100 EC Insecticide being beyond the control of the manufacturer, no warranty expressed or implied is given by Rygel Australia 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 Rygel Australia Pty Ltd accepts with no responsibility for any consequences whatsoever resulting from the use of this product.

APVMA Approval No.:

**In an Emergency Dial 000 Police or Fire Brigade**

## DIRECTIONS FOR USE

### RESTRAINT

DO NOT apply if rainfall is expected within 6 hours of spraying.

Crop	Pest	State	Rate	WHP	Critical Comments
<b>CEREALS</b>					
Winter cereals	Cutworm ( <i>Agrotis spp</i> )	Qld, WA, NT, ACT, NSW,	75 mL/ha	7 days	Check emerging and established crops in the late afternoon and evening for caterpillars crawling on the soil surface and feeding on the seedlings. Spray in late afternoon or evening. In NSW do not spray before May or after August.
	Pasture Webworm ( <i>Hednota spp</i> )	W A			
	Common Armyworm ( <i>Mythimna convecta</i> ) Southern Armyworm ( <i>Persectania ewingii</i> )	Vic WA ACT Tas	160 mL per 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 the larvae are most active. Spray to achieve good crop penetration. This rate is effective against small (6 mm) and Large (20 mm) grubs. This rate is effective if added to 840 mL diesel and sprayed through Micronair equipment at a rate of 1 litre of mixture /ha.
		NSW			Spray in the cool of the day (late afternoon) when larvae are most active.
Redlegged earth mite ( <i>Halotydeus destructor</i> ) Blue oat mite ( <i>Penthaleus major</i> )	NSW Vic WA ACT Tas & SA	50 mL per ha	Spray seedling crops if silvering or whitening (bleaching) of the leaves occurs is causing a reduction in crop growth. If possible, spray on a calm mild morning when mites are actively feeding on crop leaves. <b>DO NOT</b> use as a bare earth treatment.		
Maize	Native budworm ( <i>Helicoverpa punctigera</i> ) Corn earworm ( <i>Helicoverpa armigera</i> )	Qld, NT, ACT, NSW Vic	300 or 400 mL/ha		Cob damage tolerated is variable according to market requirements. For fresh corn market spray at tassel emergence then at intervals at 5 to 8 days until silks wither. For processing corn and maize spray at early silking. Use the higher rate if larvae are present. To help contain pyrethroid resistance in <i>Helicoverpa armigera</i> in summer crops, do not apply to Corn earworm larvae >5 mm In Northern NSW & Qld.
Rice	Common Armyworm ( <i>Mythimna convecta</i> )	NSW	200 mL /ha		Do NOT use more than a total of 400 mL/ha per season. Apply to drained fields only. Inspect crop regularly for the presence of grubs. Apply by aircraft in 20 –30 Litres of water /ha. Spray In the cool at the day (early morning or late afternoon) when larvae are most active.
Sorghum	Native budworm ( <i>Helicoverpa punctigera</i> ) Corn earworm ( <i>Helicoverpa armigera</i> )	QLD, NSW, WA, NT	300 or 400 mL/ha		Apply when larval numbers exceed two / head. Use the higher rate if greater residual control is required. To help contain pyrethroid resistance in <i>Helicoverpa armigera</i> in summer crops, do not apply to Corn earworm larvae >5 mm In Northern NSW & Qld.
	Sorghum midge ( <i>Contarinia sorghicola</i> )		100 or 200 mL/ha	Spray when Midge numbers are one or two / head, from emergence to the completion of flowering. Use the higher rate if greater residual control is required.	

<b>COTTON</b>					
Cotton	Cotton Bollworm ( <i>Helicoverpa spp.</i> ) Native budworm ( <i>Helicoverpa punctigera</i> )	QLD, NSW, WA NT	300 mL/ ha	14 days	Apply to coincide with egg hatching as indicated by field checks: Spray BEFORE larvae are in protected feeding sites. Use when egg laying is light i.e. – 5 or 20 brown eggs / m or 2 or 5 newly hatched larvae per 100 terminals.
			400 mL/ha		Apply to coincide with egg hatching as indicated by field checks: Spray BEFORE larvae are in protected feeding sites. Use when egg laying is heavy and larvae < 5 mm long are present.
			500 mL/ha		Apply to coincide with egg hatching as indicated by field checks: Spray BEFORE larvae are in protected feeding sites. Use when egg laying is heavier and continuous, larvae < 5 mm long and residual control is required.
	Rough Bollworm ( <i>Earias huegeli</i> )	300 or 400 mL/ha	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 10 mm are present.		
<b>GRAIN LEGUMES</b>					
Lupins	Native budworm ( <i>Helicoverpa punctigera</i> )	Vic ACT SA NSW	200or 300 mL/ha	4 weeks	Inspect the crop regularly. Spray when damaging pest numbers first appear on the crop and repeat if necessary. Use the higher rate if larvae larger than 10 mm are present.
		WA	120 mL / ha		Check for caterpillars of 20 mm size and if damage to pods is imminent. When caterpillars are small, they do not damage the pods and numbers may reduce naturally.
	Cutworm ( <i>Agrotis spp</i> )	ACT WA NSW	75 mL/ha		Check for caterpillars (late afternoon or evening) when larvae are most active: Inspect crop regularly from emergence and spray at first sign at pest activity. Spray in the cool of the day (late afternoon).
	Common Armyworm ( <i>Mythimna convecta</i> ) Southern Armyworm ( <i>Persectania ewingii</i> )	ACT NSW	160 mL/ha		Spray in the cool of the day (late afternoon) when larvae are most active.
Peas (field)	Pea weevil ( <i>Bruchus pisorum</i> )	Vic WA ACT Tas NSW SA	160 or 200 mL/ha		Check crops for adult weevils every three to four days from beginning of flowering. Apply during flowering prior to egg laying when the population is one or more per 25 sweeps of the sweep net.
	Native budworm ( <i>Helicoverpa punctigera</i> )		160 mL/ha		Check crops for larvae every three to four days from beginning of flowering. Spray open, less dense crops. Spray when damaging pest numbers first appear on the crop and repeat if necessary.
			200 or 300 mL/ha		Check crops for larvae every three to four days from beginning of flowering. Spray when damaging pest numbers first appear on the crop and repeat if necessary. Use the higher rate if larvae are bigger than 10 mm and when greater residual control is required.
	Cutworm ( <i>Agrotis spp</i> )	WA ACT NSW	75 mL/ha		Check for caterpillars crawling on the soil surface (late afternoon) when larvae are most active: Inspect crop regularly from emergence and spray at first sign at pest activity. Spray in the cool of the day (late afternoon).
	Redlegged earth mite ( <i>Halotydeus destructor</i> ) Blue oat mite ( <i>Penthaleus major</i> )	Vic WA Tas NSW SA	50 mL/ha		Apply to established crops when mites reach damaging levels. <b>DO NOT</b> spray as a bare earth treatment.

Soybeans	Native budworm ( <i>Helicoverpa punctigera</i> ) Corn earworm ( <i>Helicoverpa armigera</i> )	Qld NT ACT NSW	300 or 400 mL/ha	7 days	Apply when flower or pod feeding numbers reach 1 or 2 or more present per metre of row. It is essential to detect and treat infestations in the early stages. When the canopy is dense, or greater residual control is required, use the higher rate. To help contain pyrethroid resistance in <i>Helicoverpa armigera</i> in summer crops, do not apply to Corn earworm larvae >5 mm in Northern NSW & Qld.
<b>GRAPEVINES (Non-bearing)</b>					
Grape Vines (non-bearing)	Pink Cutworm ( <i>Agrotis munda</i> ), Apple weevil ( <i>Curculio beetle</i> ) Garden weevil ( <i>Phlyctinus callosus</i> )	S A	100mL/100 L	-	Check young vines regularly during Spring to early Summer. Spray at the first signs of leaf damage. Apply the insecticide to the leaves, cane and soil (to a diameter of 30 cm) around each vine. Approx. 70 or 80 mL of the spray should suffice for each vine. If pests persist, a second application may be required in three weeks, please monitor the situation.
<b>OIL SEEDS</b>					
Canola	Native budworm ( <i>Helicoverpa punctigera</i> )	Vic WA Tas NSW	200 or 300 mL/ha	21 days	<b>DO NOT</b> use more than a total of 400 mL/ha per season. 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. A total volume of 30 or 35 L/ha should suffice. Use the higher rate if larvae larger than 10 mm are present.
	Tobacco Looper ( <i>Chrysodeixis argentifera</i> )	Vic WA Tas NSW S A			
	Vegetable weevil	W A	400 mL/ha		
Linola	Native budworm ( <i>Helicoverpa punctigera</i> )	Vic WA Tas NSW SA	160 or 200 mL/ha	12 Weeks	<b>DO NOT</b> use more than a total of 400 mL/ha per season. Inspect the crop regularly during and immediately after flowering. Apply when damaging pest numbers first appear on the crop. <b>For aerial application: Apply during the cooler part of the day. A total volume of 30 or 35 L/ha should suffice.</b> Use the higher rate if larvae larger than 10 mm are present.
Linseed	Native budworm ( <i>Helicoverpa punctigera</i> )	Vic WA	200 or 300 mL/ha	14 days	Check crops for insects every three to four days from beginning of flowering. Spray when damaging pest numbers first appear on the crop and repeat if necessary. Use the higher rate if larvae are bigger than 10 mm and when greater residual control is required. Check emerging and established crops in the late afternoon and evening for caterpillars crawling on the soil surface and feeding on the seedlings. Spray in late afternoon.
	Cutworm ( <i>Agrotis spp</i> )	NSW ACT	75 mL/ha		
Sun flowers	Native budworm ( <i>Helicoverpa punctigera</i> ) Corn earworm ( <i>Helicoverpa armigera</i> )	Vic NT Tas NSW Qld	300 or 400 mL/ha	21 days	Apply when larval numbers average two or three / head, or where larvae are damaging plants. Apply to coincide with egg hatching. Use the higher rate if greater residual control is required. To help contain pyrethroid resistance in <i>Helicoverpa armigera</i> in summer crops, do not apply to Corn earworm larvae >5 mm in Northern NSW & Qld.

PASTURES					
Lucerne (seed & forage)	Native budworm ( <i>Helicoverpa punctigera</i> )	Vic SA Tas NSW WA	160 mL/ha	14 days	<b>DO NOT use more than a total of 160 mL/ha per cut. Apply when damaging pest numbers appear on the crop in economic proportions.</b>
	Green Mirid ( <i>Creontiades dilutis</i> )	Vic SA Tas			
Pasture (legume and grass)	Wingless grasshopper ( <i>Phaulacridium vittatum</i> )	Vic SA Tas NSW WA	50 mL/ha	3 days graz.	DO NOT use more than a total of 320 mL/ha per cut. Apply when hoppers appear on the pastures. Spray areas infected before insects disperse. If mature populations appear, spray before egg laying.
	Brown pasture looper ( <i>Ciampa arietaria</i> )			14 days (cut for stock feed)	Apply when the damaging pest numbers appear on the crop in economically damaging proportions.
	Blackheaded cockchafer ( <i>Aphodius tasmaniae</i> )	Vic SA NSW	100 mL/ha		Inspect the pasture regularly. Take soil samples after the first significant rain in April – May. Spray when damaging pest numbers first appear in sufficient numbers to warrant treatment. Spraying after June will give poor results.
	Redlegged earth mite ( <i>Halotydeus destructor</i> ) Blue oat mite ( <i>Penthaleus major</i> )	Vic ACT Tas WA SA NSW	50 mL/ha		Insecticide can be mixed with most herbicides used for cleaning legume pastures or pasture topping. <b>Autumn/Winter:</b> Apply 2 or 3 weeks after the opening rains, when egg hatching occurs. Insecticide is rainfast after spraying deposits have dried on the leaf surface. <b>Spring:</b> Spray before dialectica egg production if RLEM / BOM numbers increase.
POME AND STONE FRUIT					
Apples Pears Apricots Nectarines Peaches Plums	Garden weevil ( <i>Phlyctinus callosus</i> )  Apple weevil ( <i>Ortiorhynchus cribricollis</i> )	W A	100 mL / 100 L water	14 days	Check weevil emergence using a single sided cardboard trunk band in late Oct – late Nov. (garden weevil) and late Nov. or mid Dec (apple weevil). Apply 1 or 2 L of solution on the trunk & crotch of the tree, as well as the soil at its base at peak weevil emergence. A second spray may be required as determined by continued monitoring.
TREES & ORNAMENTALS					
Eucalyptus	Tasmanian Eucalyptus leaf beetle ( <i>Chrysophtharta bimaculata</i> )	Tas	250 mL/ha	-	Use aircraft or helicopter using either hydraulic or Micronair equipment. Micronair application in 5L of water / ha has proved effective. Apply insecticide to the crowns of trees before insects cause defoliation. Treatment will control from small larvae to adult beetle.
Banksia	Banksia moth ( <i>Anthrophora arcuatalis</i> )	WA	20 mL/ 100L		Regularly spray at 2 week intervals from early flower development until blooms are fully developed. Commence spraying when blooms are immature.
TOBACCO					
Tobacco	Native Budworm ( <i>Helicoverpa punctigera</i> ) Tobacco Budworm ( <i>Helicoverpa armigera</i> )	Vic	30 or 40 mL/ 100L	7 days	Apply on a 7 to 10 day schedule after transplanting, while pests are active, in a volume application of 200 to 1000 L/ha depending on crop height. Use a higher rate when egg laying is intense or if larvae are bigger than 10 mm. Apply as a fine spray using hollow cone nozzles.

VEGETABLES					
Bean (Mung & Navy)	Native budworm ( <i>Helicoverpa punctigera</i> ) Corn earworm ( <i>Helicoverpa armigera</i> )	Qld NSW ACT NT	300 or 400 mL/ha	7 days	Apply when flower or pod feeding numbers reach 1 or 2 or more present per metre of row. It is essential to detect and treat infestations in the early stages. When the canopy is dense, or greater residual control is required, use the higher rate. To help contain pyrethroid resistance in <i>Helicoverpa armigera</i> in summer crops, do not apply to Corn earworm larvae >5 mm in Northern NSW & Qld.
Cabbage Cauliflowers Brussels sprouts Broccoli Kale	<b>Helicoverpa spp</b>  Cabbage white butterfly ( <i>Pieris rapae</i> ) Cabbage Moth ( <i>Plutella xylostella</i> )	All States	Low vol: 400 mL/ha	1 day	Apply when pest populations indicate. When reinfestation is continuous, treatment every 7 to 10 days may be required. Add wetter (1,000 g/L) at a rate of 15 or 20 L / 100 L of spray mixture. <b>LOW VOLUME:</b> When applying by ground equipment use a fine spray with droplet size of 100 to 200 microns. Apply in 100 to 600 L water/ha. Aircraft Application: Use 20 or 60 L water /ha with a droplet size of 100 to 150 microns.
Turnips Chinese cabbage Kohlrabi	Cluster Caterpillar ( <i>Spodoptera litura</i> )	Vic ACT NSW WA	High vol: 50 mL/ha		<b>HIGH VOLUME:</b> Use a medium spray with droplet size of 200 to 400 microns. Apply 600L spray mixture per hectare just after transplanting and increase gradually to 1,000L/ha toward maturity.
Lettuce	<b>Helicoverpa spp</b>	ACT NSW	50 mL/ 100L or 400 mL/ha	3 days	Inspect the crop regularly. Spray when damaging pest numbers first appear on the crop and repeat if necessary. Please read RESISTANCE STRATEGY.
Sweet Corn	Corn earworm ( <i>Helicoverpa armigera</i> )	All States	300 or 400 mL/ha	1 day	Cob damage tolerated is variable according to market requirements. For fresh corn market spray at tassel emergence then at intervals at 5 to 8 days until silks wither. For processing corn and maize spray at early silking. Use the higher rate if larvae are present. To help contain pyrethroid resistance in <i>Helicoverpa armigera</i> in summer crops, do not apply to Corn earworm larvae >5 mm in Qld.
Tomatoes	Native Budworm ( <i>Helicoverpa punctigera</i> ) Tomato grub ( <i>Helicoverpa armigera</i> )	All States	<i>Programme Application:</i> Low vol: 200 or 300 mL/ha High vol: 20 or 30 mL/100 L	1 day	Do not apply to trellis tomatoes by aircraft. <b>Programme application:</b> Apply on a 1 to 10 day schedule while pests are active. Use the higher rate when egg laying is intense. Apply as a fine spray using hollow cone nozzles. For low volume application apply in 100 to 400 L / ha by ground or minimum of 10 L/ha by air. For high volume application apply 200 L of spray mixture per hectare after transplanting and increase gradually to 1,000 L/ha at maturity.
	Cluster Caterpillar ( <i>Spodoptera litura</i> )	Vic NT NSW Qld WA ACT	<i>Established Infestations:</i> Low vol: 400 mL/ha High vol: 50 mL/100 L		<b>Established Infestations:</b> Apply these rates to established infestations or escape situations. <b>DO NOT</b> apply to Tomato grub larvae > 5 mm in length.
	Plague Thrips ( <i>Thrips imuginis</i> )	Vic NT Tas NSW Qld WA ACT	Low vol: 130 mL/ha High vol: 18 mL/100 L		Apply as required using methods stated above in the critical comments section for control of Native budworm, tomato grub and Cluster caterpillar on tomatoes.

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

**WITHHOLDING PERIODS**

**Tomatoes & Crucifers:** Do not harvest for 1 day after application.

**Lettuce:** Do not harvest for 3 days after application.

**Winter cereals, Sweetcorn, Maize, Rice, Soybeans, Sorghum, Mung Beans, Navy Beans and Tobacco:** Do not harvest for 7 days after application.

**Sunflowers and Canola:** Do not harvest for 21 days after application.

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

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

**Pasture:** Do not graze for 3 days or cut for stock feed for 14 days after application.

**Field peas, Lupins:** Do not harvest for 4 weeks after application.

**Linola:** Do not harvest for 12 weeks after application.