

Product Name: CYHELLA INSECTICIDE

APVMA Approval No: 65190/127156

Other Limitations:

Label Name:	abel Name: CYHELLA INSECTICIDE							
Signal Headings:	POISON							
	KEEP OUT OF REACH OF CHILDREN							
	READ SAFETY DIRECTIONS BEFORE OPENING OR USING							
0	OFO // LAMPRA OVIVALOTURIN							
Constituent Statements:	250 g/L LAMBDA-CYHALOTHRIN							
Mode of Action:	GROUP 3A INSECTICIDE							
Statement of Claims:	For the control of certain insect pests in Barley, Cotton, Wheat and various field crops as per the directions for use.							
Net Contents:	1L 5L							
Restraints:	RESTRAINT: DO NOT apply if rain is expected within 6 hours For ULV application: Cyhella can be bulked up with spraying oils for all uses except those indicated in the critical comments.							
Directions for Use:	This section contains file attachment.							

Mung Beans (if harvested green), Navy Beans (if harvested green), Tomatoes: DO NOT HARVEST FOR 1 DAY AFTER APPLICATION.

Cabbages, Cauliflowers, Broccoli, Brussels Sprouts: DO NOT HARVEST FOR 2 DAYS AFTER APPLICATION.

Canola, Chickpeas, Faba Beans, Field Peas, Lentils, Potatoes, Vetch: DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION.

Barley, Lucerne, Lupins, Onions, Mung Beans (if harvested dry), Navy Beans (if harvested dry), pasture, Sorghum, Wheat: DO NOT HARVEST FOR 14 DAYS AFTER APPLICATION.

Cotton, Soybeans: DO NOT HARVEST FOR 21 DAYS AFTER APPLICATION. Lemons, Oranges, Sunflowers: DO NOT HARVEST FOR 4 WEEKS AFTER APPLICATION.

GRAZING:

Mung Beans (if harvested green), Navy Beans (if harvested green): DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 1 DAY AFTER APPLICATION.

Forage Brassicas: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 2 DAYS AFTER APPLICATION.

Canola, Chickpeas, Faba Beans, Field Peas, Lentils, Vetch: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION.

Barley, Lucerne, Lupins, Mung Beans (if harvested dry), Navy Beans (if harvested dry), Pasture, Sorghum, Wheat: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 14 DAYS AFTER APPLICATION.

Soybeans: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 21 DAYS AFTER APPLICATION.

Trade Advice:

General Instructions:

GENERAL DIRECTIONS

MIXING: SHAKE WELL BEFORE USE

For ground or aircraft application with water: Cyhella mixes readily with hard or soft water. Add the required quantity of product to water whilst under agitation to ensure thorough mixing. Agitate while spraying. It is not advisable to allow the mixed solution to stand longer than 24 hours before use. In extremely alkaline water (pH 9) spray immediately after mixing.

For ULV (Ultra Low Volume) application with oil: It is recommended that Cyhella is mixed with a mineral spraying oil. See compatibility section for list of recommended mineral spraying oils. Add the required quantity of product to oil whilst under agitation to ensure thorough mixing. Agitate while spraying. It is not advisable to allow the mixed solution to stand longer than 24 hours before use.

APPLICATION:

Good Coverage is essential to ensure adequate control. The product may be applied by ground rig or aircraft.

Acceptable threshold values for eggs and larval numbers may vary according to the stage of the crop development and the pest management program under- taken. Alternative higher thresholds may be acceptable under certain circumstances.

Diluted with water: For ground rigs the volume of liquid applied should be 50 to 100 L/ha. Aerial application should be under conditions normally suitable for water based insecticides. Apply in at least 10 to 20 litres of water per hectare.

Mixed with oil: Apply the recommended rate of Cyhella bulked with oil to total volume of 3 to 5 L/ha for cotton, sorghum and sunflowers. The total volume for all other crops should be 1.5 litres per hectare.

TIMING: This product is a contact and residual insecticide. Best results will be obtained if Cyhella is applied as a protective treatment at regular intervals. However if spraying frequency is based on scouting, then for Helicoverpa spp application at egg hatch will give optimum results.

CROP CHECKING: Frequent and thorough checking of whole plants, terminals, squares, flowers, bolls or fruiting bodies as required, should be made over a random sample of plants, representative of the whole crop area.

Inspect crops after spraying to ensure a thorough kill has been obtained, however note that maximum kill may not be achieved until 48 hours after treatment. Then check at frequent intervals, not more than 2 days apart when insect pressure is heavy. Apply the recommended treatment as soon as a crop check indicates spraying is necessary.

COMPATIBILITY:

This product, when applied as a water based spray is compatible with the following actives: pirimophos methyl, procymidone, fluazifop-P-butyl, paraquat, pirimicarb, paraquat plus diquat, and glyphosate.

Resistance Warning:

For insecticide resistance management Cyhella is a Group 3A insecticide. Some naturally occurring insect biotypes resistant to Cyhella 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 Cyhella or other Group 3A insecticides are used repeatedly. The effectiveness of Cyhella on resistant individuals could be significantly reduced. Since occurrence of resistant individuals is difficult to detect prior to use, the proprietors and distributors of Cyhella accept no liability for any losses that may result from the failure of Cyhella to control insects.

Cyhella may be subject to specific resistance management strategies. For further information contact your local supplier, FMC Australia Pty Ltd representative or local agricultural department agronomist.

Helicoverpa armigera (Heliothis) resistance in Nth NSW and Qld: To help contain pyrethroid resistance in H. armigera, the Summer Crop Insecticide Strategy as developed by AIRAC, Qld Department of Primary Industries and the NSW 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.

Precautions:

PRECAUTION: Human flagging is not supported unless flaggers are protected by engineering controls such as vehicles with cabs.

RE-ENTRY PERIOD: Do not allow entry into treated fields/crops until the spray has dried. If prior entry is necessary, wear cotton overalls and chemical resistant gloves.

Protections:

PROTECTION OF WILDLIFE, FISH CRUSTACEANS AND ENVIRONMENT: Dangerous to fish and aquatic organisms. DO NOT contaminate streams, rivers or waterways with the product or the used containers. Tail waters which flow from treated areas should be prevented from entering river systems. A strategy to minimise spray drift should be employed at all times when aerially applying sprays near sensitive areas. Such a strategy is illustrated by the cotton industry's Best Management Practice Manual.

PROTECTION OF LIVESTOCK: Toxic to bees. DO NOT spray when bees are actively foraging. Risk is reduced by spraying in the early morning or late evening.

SMALL SPILL MANAGEMENT: Wear protective equipment (see safety directions). Apply absorbent material such as earth, clay granules or cat clumping litter to the spill. Sweep up the material for disposal when absorption is completed and contain in a refuse vessel for disposal (See Storage and Disposal). If necessary, wash the spill area with an alkaline detergent and water and absorb, as above, the wash liquid for disposal.

Storage and Disposal:

STORAGE AND DISPOSAL: Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. Triple-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, or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. Do not burn empty containers or product.

Safety Directions:

SAFETY DIRECTIONS: Harmful if inhaled or swallowed. Will irritate the eyes and skin. Repeated exposure may cause allergic disorders. Facial skin contact may cause temporary facial numbness. Avoid contact with eyes and skin. When opening the container, preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist, a washable hat, elbow-length PVC gloves and face shield. If product on skin, immediately wash area with soap and water. Wash hands after use. After each day's use, wash gloves, face sheild and contaminated clothing.

First Aid Instructions:

FIRST AID: If poisoning occurs contact a doctor or Poisons Information Centre (Phone Australia 131 126). If in eyes, hold open, flood with water for at least 15 minutes and see a doctor.

First Aid Warnings:

DIRECTIONS FOR USE:

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
Barley, Wheat	Blackhead Pasture Cockchafer (Aphodius tasmaniae)	NSW, Vic, Tas, SA, WA only	20 or 40 mL/ha	14 days (H/G)	Treat as soon as possible after the autumn rains stimulate egg hatching and activity of existing larvae. This can be ascertained by monitoring soil populations in known areas. For best results spray when larvae have surfaced to feed after rain. Preferably use a boom spray delivering 70 to 100L water/ha. Use the lower rate until early June and the higher rate after mid-late June. DO NOT USE ULV APPLICATION FOR THIS PEST
	Brown or Pink Cutworm (Agrotis munda) Common Cutworm	All States	12 or 18 mL/ha		For best results apply at first sign of infestation before larvae are 10mm long. If larvae are larger than 10mm use the higher rate. Use a minimum 50L water.
	(Agrotis infusa) Pasture Webworm (Hednota spp)	only NSW, Vic, Tas, SA, WA only	12 mL/ha		Pre-seeding: The product can be tank mixed with knockdown herbicides. Post-crop emergence: Inspect crop regularly from sowing. Spray at first sign of damage. Use a minimum 50L water/ha. Apply at first sign infestation before larvae are 10mm long.
	Redlegged Earthmite (Halotydeus destructor)		9 mL*/ha		If mites are present on an establishing crop, apply at first sign of crop emergence. Monitor crop regularly for reinfestation and respray if necessary.
	Aphids (Rospalosiphum spp) (Barley Yellow Dwarf Virus vectors)		12 or 18 mL/ha		To control aphids spray should be applied at 4 and 8 weeks after emergence to reduce aphid colonisation and supress Barley Yellow Dwarf Virus. Use the higher rate when greater than 15 aphids on 50% of tillers is expected during the season.
Broccoli, Brussels Sprouts, Cabbage, Cauliflowers, Forage Brassicas	Cabbage Cluster Caterpiller (Crocidolomia parvonana). Cabbage White Butterfly (Pieris rapae), Diamond Back Moth (Plutella xylostella)	All States	24 or 36 mL/ha plus non ionic spray adjuvant at 10 mL/100L spray volume.	2 days (HG)	Apply at first sign of infestation. For schedule spraying on a weekly basis, use the lower rate. For spraying as needed, use the higher rate for longer persistence. Use a minimum 500L water/ha.
Canola	Cabbage White Butterfly (Pieris rapae), Cabbage Moth/Diamond Back Moth (Plutella xylostella)	All States	24 mL/ha	7 days (HG)	Apply as soon as larvae reach threshold numbers. Check with local officer of the Department of Agriculture for thresholds applicable to the particular growth stage of the crop.
	Grey Cluster Bug. Rutherglen Bug (Nysius spp.)		36 mL/ha		Apply only near maturity when severe infestations are likely to downgrade yields.
	Native Budworm (Helicoverpa punctigera)	All states	24 or 36 mL/ha		For best results, apply at hatching or soon after. Use higher rate if the crop is dense or the larvae are larger than 10mm.
	Thrips (Thrips tabaci)	Qld, NSW, Vic, Tas, WA, NT	36 mL/ha		Apply only near maturity when severe infestations are likely to downgrade yields.
	Redlegged Earthmite (Halotydeus destructor)	NSW, Vic, Tas, SA, WA only	9 mL/ha		If mites are present on an establishing crop, apply at the first sign of crop emergence. Monitor the crop regularly for reinfestation and respray if necessary.
Chickpeas, Faba Beans, Lentils, Vetch	Native Budworm (Helicoverpa punctigera)	All states	24 or 36 mL/ha	7 days (H/G)	For best results apply at hatching or soon after. Use the higher rate if the crop is dense or the larvae are larger than 10mm.
	Redlegged Earthmite (Halotydeus	NSW, Vic, Tas,	9 mL*/ha		If mites are present on an established crop, apply at first sign of crop emergence. Monitor crop regularly for

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
	destructor)	SA, WA only			reinfestation and respray if necessary. Control of Lucerne Flea will not be obtained with application.
Cotton	Apple Dimpling Bug (Campylomma liebknechti), Brokenbacked bug (Taylorilygus pallidulus), Brown Mirid (C. pacificus), Cottonseed Bug (Oxycarenus luctuosus), Green Mirid (Creontiades dilutus), Leafhoppers (Austroasca viridigrisea, Amrasca terraereginae), Pale Cotton Stainer (Dysdercus sidae) Cotton Bollworm (Helicoverpa armigera), Native Budworm (Helicoverpa punctigera)	Qld, NSW, WA, NT only	60 mL/ha 60 mL/ha 70 mL/ha	21 days (H)	Apply when egg laying is light, less than 25 eggs/100 terminals and no larvae are present. Apply when egg laying is moderate, greater than 25 eggs/100 terminals and/or when. less than 12 newly hatched larvae/100 terminals are present. Apply when egg laying is moderate, greater than 25 eggs/100 terminals and/or when. less than 12 newly hatched larvae/100 terminals are present. Apply when egg laying is heavy and continuous and/or when <i>H.punctigera</i> larvae are greater than 10mm in length.
		211.25			For <i>H. amigera</i> , apply only to larvae less than 5mm in length.
	Pink-Spotted Bollworm (Pectinophora scutigera)	Qld, NT only	70 mL/ha		Controlled with the <i>Helicoverpa spp</i> program when used at this rate. If the Pink-Spotted Bollworm is the only pest present, apply when more than 10 adult moths are caught in pheromone traps on 2 consecitove nights.
Field peas	Native Budworm (Helicoverpa punctigera) Pea Weevil	All states	24 or 26 mL/ha 24 mL/ha	7 days (H/G)	For best results, apply at hatching or soon after. Use higher rate if the crop is dense or the larvae are larger than 10mm. SA only: Follow State Department of Agriculture
	(Bruchus pisorum)	SA only Vic, WA only	36 mL/ha		guidelines for controlling Pea Weevil. If these are unavailable, monitor the crops regularly once flowering commences and apply as soon as adult weevils are detected. Adults must be controlled before egg laying begins. Both Native Budworm and Pea Weevil populations can be easily monitored using a sweep net in the top section of the crop. WA only: Commence monitoring the crop for Pea Weevil presence using a sweep net prior to flowering. Spray when 1 weevil/100 sweeps is found for milling grade seed, or 1 weevil/25 sweeps for feed grade seed. Continue monitoring after spraying and respray if necessary. Use either a border spray (most cases) or whole crop. spray, depending on Pea Weevil penetration of the crop.
	Redlegged Earth Mite (Halotydeus destructor)	NSW, Vic, Tas, SA, WA only	9 mL*/ha		If mites are present on an establishing crop, apply at the first sign of crop emergence. Monitor crop regularly for reinfestation and respray if necessary. Control of Lucerne Flea will not be obtained with this application.
Lemons, Oranges	Fullers Rose Weevil (Asynonychus cervinus)	All States	300 mL/100L as a directed spray	4 weeks (H)	Firstly ensure that the trees are skirted and all weeds under the trees are removed. Apply 250mL spray solution to the tree trunk at about 300mm from the ground in a 100mm band. Deliver the spray through a U shaped wand fitted with 4 nozzels evenly spaced around

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
					the tree. Trees must be treated in the early stages of
Lucama	Disakhaad Dastura	NICVA	20 or 40	14 days	adult weevils emerging from the ground.
Lucerne	Blackhead Pasture Cockchafer (Aphodius tasmaniae)	NSW, Vic, Tas, SA, WA only	20 or 40 mL/ha	14 days (H/G)	Treat as soon as possible after the autumn rains stimulate egg hatching and activity of existing larvae. This can be ascertained by monitoring soil populations in known areas. For best results spray when the larvae have surfaced to feed after rain. Preferably use a boom spray delivering 70 to 100L water/ha. Use the lower rate until early June and the higher rate after mid-late June. DO NOT USE ULV APPLICATION FOR THIS PEST.
	Lucerne Leaf Roller (Merophyas divulsana)	All States	24 or 36 mL/ha		For best results apply at hatching or soon after. Use higher rate if the crop is dense or the larvae are larger than 10mm. Apply the first spray when about 30% of the terminals are rolled.
	Native Budworm (Helicoverpa punctigera)				For best results apply at hatching or soon after. Use higher rate if the crop is dense or the larvae are larger than 10mm.
	Pea Aphid		24 mL/ha		Good coverage, particularly the stems, is essential. Use hollow cone nozzles.
	Redlegged Earthmite (Halotydeus destructor)	NSW, Vic, Tas, SA, WA only	9 mL*/ha		If mites are present on an establishing crop, apply at first sign of crop emergence. Monitor crop regularly for reinfestation and respray if necessary. Control of Lucerne Flea will not be obtained with this application
Lupins	Brown Pasture Looper (Ciampa arietaria)	NSW, Vic, Tas, SA, WA only	12 mL/ha		Once crop has emerged, inspect regularly and apply at the first sign of damage. use a minimum of 50L water/ha. DO NOT USE ULV APPLICATION FOR THIS PEST.
	Native Budworm (Helicoverpa punctigera)	All states	24 mL/ha		For best results, apply at hatching or soon after when larvae are small. WA only: Environmental factors may cause populations of small caterpillars to decline, reducing damage potential. Spraying should commence once caterpillars are 12mm in length.
	Redlegged Earthmite (Halotydeus destructor)	NSW, Vic, Tas, SA, WA only	9 mL*/ha		If mites are present on an establishing crop, apply at the first sign of crop emergence. Monitor crop regularly for reinfestation and respray if necessary. Control of Lucerne Flea will not be obtained with this application.
Mung Beans, Navy Beans	Corn Earworm (Helicoverpa armigera) Native Budworm (Helicoverpa punctigera)	Qld, NSW, NT only	60 or 70 mL/ha	1 day (H/G) 14 days if dry harvested	Apply when flower or pod feeding larvae reach populations of 1 to 2/m of row in navy beans and 1/m of row in mung beans. Use the higher rate if pest numbers are high or if larvae are larger than 10mm. In Nth NSW and Qld where Corn Earworm has established resistance to pyrethroids DO NOT apply to Corn Earworm larvae larger than 5mm.
Onions bulb	Onion Thrips	All States	40 mL/ha	14 days (H)	Apply when thrips first appear. Apply via ground equipment in a minimum 300 L water/ha. DO NOT exceed a maximum of 4 applications per crop with a minimum retreatment interval of 7 days between consecutive sprays.
Pasture	Blackheaded Pasture Cockchafer (Aphodius tasmaniae)	NSW, Vic, Tas, SA, WA only	20 or 40 mL/ha	14 days (H/G)	Treat as soon as possible after the autumn rains stimulate egg hatching and activity of existing larvae. This can be ascertained by monitoring soil populations in known areas. For best results spray when the larvae have surfaced to feed after rain. Preferably use a boom

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
					spray delivering 70 to 100L water/ha. use the lower rate
					until early June and the higher rate after
	Brown Pasture Looper	All	12 mL/ha		DO NOT USE ULV APPLICATION FOR THIS PEST.
	(Ciampa arietaria)	States			
	Brown or Pink		12 to 18		For best results apply at first sign of infestation before
	Cutworm		mL/ha		larvae are 10mm long. If larvae are larger than 10mm,
	(Agrotis munda)				use the higher rate. Use a minimum of 50L of water.
	Common Cutworm	NSW			
	(Agrotis infusa)	only		_	
	Pasture Webworm	NSW,	12 mL/ha		Apply once larvae are present using adequate water to
	(Hednota spp)	Vic, Tas,		4	ensure good penetration.
	Redlegged Earth Mite	SA, WA	9 mL*/ha		If mites are present on an establishing crop, apply at first
	(Halotydeus	only			sign of crop emergence. Monitor crop regularly for
	destructor)				reinfestation and respray if necessary. Control of
					Lucerne Flea will not be obtained with this application.
Potatoes	Vegetable Jassid	All	24 mL/ha	7 days (H)	Apply only when numbers are excessive.
	(Austroasca	States			
C	viridigrisea)	Old	60 - 70	44 -1	Analysis to the section of a section 2 /h and the state of the section
Sorghum	Corn Earworm	Qld,	60 or 70	14 days	Apply when larval numbers reach 2/head. Use the higher
	(Helicoverpa armigera)	NSW,	mL/ha	(H/G)	rate if pest pressure is severe. Best results are achieved on small larvae.
	Corabum Midae	NT only	18 or 36	-	
	Sorghum Midge (Corntarinia		mL/ha		Apply when midge numbers reach 1 to 2/head. Use the higher rate for residual protection.
	sorghicola)		IIIL/IIa		fligher rate for residual protection.
Soybeans	Corn Earworm	Qld,	60 or 70	21 days	Apply when flower or pod feeding larvae reach a
Joybeans	(Helicoverpa armigera)	NSW,	mL/ha	(H/G)	population of 2/m of row in soybeans. Use the higher
	Native Budworm	Vic, NT	IIIL/III	(11/0)	rate if pest numbers are high or if larvae are larger than
	(Helicoverpa	only			10mm. In Nth NSW and Qld DO NOT apply to resistant <i>H</i> .
	punctigera)	J,			armigera larvae larger than 5mm length.
Sunflowers	Corn Earworm	Qld, Nth	60 or 70	28 days	Apply when an average of 2 to 3 larvae are present/head
	(Helicoverpa armigera)	NSW	mL/ha	(H)	or when larvae are damaging plants. Use the higher rate
	Native Budworm	only			if pest numbers are high and/or <i>H. punctigera</i> larvae are
	(Helicoverpa				larger than 10 mm in length.
	punctigera)				In Nth NSW and Qld, DO NOT apply to resistant H.
					armigera larvae larger than 5mm in length. General
					Comments: If flowering has started, application should
					be deferred unitl after flowering but before the heads
					turn down. If treatment is unavoidable during flowering
					and bees are actively foraging in the crop, there will be
					minimal effect in the colony if spraying occurs early
				4	morning or late afternoon.
	Grey Cluster Bug	All	36 mL/ha		Apply when numbers reach 10 to 15 adults per plant at
	Rutherglen Bug (Nysius	States			budding in dry land crops or 20 to 25 in irrigated crops. If
	spp)				Helicoverpa armigera are also present in Nth NSW or
Tomataca	Native Budworm	All	4 or 5	1 day (H)	Qld, use a minimum 60 mL product.
Tomatoes bush		States	mL/100L	I day (n)	Treat plants on a 7 to 14 day schedule. In Nth NSW and Qld DO NOT apply to <i>H. armigera</i> larvae larger than
Justi	(Helicoverpa punctigera)	States	or 30 or		5mm in length. In other areas for best results apply soon
	Tomato Grub	Vic, Tas,	36 mL/ha		after egg lay. To help contain resistance, alternate sprays
	(Helicoverpa armigera)	SA, WA	JO IIIL/IId		between different chemical groups. Check the crop
	(Hencoverpu diffiligera)	only			every few days and follow the Summer Crop Insecticide
		Qld,	4 mL	1	Strategy. There may be phytotoxicity with some
		NSW,	/100L or		varieties, especially Floradade.
		NT only	60 mL/ha		
Tomatoes	Native Budworm	All	4 or 5	1	
Trellis	(Helicoverpa	States	mL/100L		
- 	punctigera)		, =====		
	Tomato Grub				

^{*}Blue Oat Mites often co-occur with Redlegged Earth Mites and the 9mL/ha rates of Cyhella may be less effective against Blue Oat Mites

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