**DANGEROUS POISON** 

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





Active Constituents: 360 g/L ETHION (An anti-cholinesterase compound) 20 g/L ZETA-CYPERMETHRIN Solvent: 528 g/L LIQUID HYDROCARBON

GROUP	1B	3A	INSECTICIDE
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For control of *Helicoverpa spp.* in cotton as per the Directions for Use

20 / 110 / 200 / 1000 Litres

F M C<sup>®</sup> FMC International A.G. Suite 3, 3 Belbora Road Shailer Park Qld 4128

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Directions for Use

**Restraints**:

Do NOT apply unless the first flush of tailwater/stormwater (up to 25 mm of rainfall) can be retained in the tailwater dam after application.

Do NOT apply to cotton within 300 metres of permanent watercourses, EXCEPT when spraying downwind of these watercourses.

Do not apply if rainfall is expected within 6 hours.

Do not apply more than two sprays per crop per season.

Do not apply the second spray within 10 days of initial application.

CROP	PEST	STATE	RATE	CRITICAL COMMENTS
Cotton	Native budworm ( <i>Helicoverpa</i> <i>punctigera</i> ) Cotton bollworm ( <i>Helicoverpa</i> <i>armigera</i> )	QId, NSW & WA only	2 to 2.5 L/ha	Apply as indicated by field checks from mid flowering onwards and in accordance with the Insecticide Resistance Management Strategy. Application should be timed to coincide with egg hatch and when small larvae up to 5 mm are present. Use the higher rate when pest pressure is high, conditions favour pest development and when increased residual protection is required. Efficacy could be diminished if rain falls within 6 hours of application.

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

WITHHOLDING PERIOD:

Cotton: DO NOT HARVEST FOR 4 WEEKS AFTER APPLICATION.

### Ancillary Panel

## GENERAL INSTRUCTIONS

Mustang<sup>®</sup> Insecticide 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 pests. Best results are obtained when Mustang is applied before pest populations build up to damaging levels.

### MIXING

Add the required quantity of Mustang to water or oil in the spray tank depending on the type of application and mix thoroughly. Maintain agitation during mixing and application.

## APPLICATION

Spray drift may occur under adverse meteorological conditions or from certain spray equipment. DO NOT allow spray to drift onto sensitive areas, including (but not limited to) natural streams, rivers or waterways and human dwellings.

Notwithstanding the above prohibition, the following information may be used as a general guide.

### FOR SITUATIONS NEAR SENSITIVE AQUATIC ENVIRONMENTS

## AERIAL APPLICATION

DO NOT apply Mustang Insecticide by air if sensitive aquatic environments (eg natural wetlands, billabongs and marshes, small natural creeks, streams or rivers) are within 2 km downwind UNLESS the following large droplet placement (LDP) best management practices are implemented:

- Select large orifice hydraulic nozzles that generate a droplet diameter (VMD) greater than 250 microns (eg 8010, D8-46, CP straight stream). Apply using minimum water volume of 30L/ha.
- Ensure that all nozzles are directed backwards parallel with the airflow
- Ensure boom lengths are 70% or less of the aircraft wingspan
- Ensure aircraft are calibrated to deliver the required application rate at an optimum flight lane separation
- Apply when the wind speed is less than 15kph (8 knots)
- DO NOT spray at all within 500m of the downwind sensitive area

## APPLICATION IN WATER FROM THE GROUND

DO NOT apply Mustang Insecticide by ground rig if sensitive aquatic environments (eg natural wetlands, billabongs and marshes, small natural creeks, streams or rivers) are within 300m downwind. For all other situations, see below.

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## Ancillary Panel (cont)

# APPLICATION - FOR ALL OTHER SITUATIONS

Only apply Mustang Insecticide through suitably calibrated spray equipment. Thorough coverage of the crop is essential. For optimum results follow the application directions listed below:

## Application in Water from the Ground or Air

- Apply a minimum spray volume of 50 –100L/ha by ground rig or at least 10L/ha by aircraft.
- Use nozzle configurations which produce droplets with a volume median diameter (VMD) of 150-250 microns. Under conditions of low humidity and high temperatures adjust spray volume and droplet size upward. Do not spray when the temperature exceeds 28°C or when relative humidity is less than 40%. Best results are achieved when the temperature is below 25°C and the relative humidity is greater than 65%.
- **DO NOT** apply when conditions are unsuitable for water based spray applications. Do not apply in high temperature, strong winds, inversion conditions, imminent rain or any other conditions that may reduce the quality of spray coverage or result in drift from the area to be treated.
- A strategy to minimise spray drift must be employed at all times when aerially applying sprays. Such a strategy is illustrated by the cotton industry's Best Management Practice Manual.

**ULV**: Dilute the required rate of Mustang Insecticide in a suitable oil such as Ampol DC-Tron or suitable equivalent and use 4-5L/ha of total spray volume.

#### RAINFASTNESS

Rain can wash Mustang Insecticide from treated plant surfaces and result in reduced insect control. Do not make spray applications when rain is expected within 6 hours of spraying.

## COMPATIBILITY

Mustang Insecticide may be mixed with appropriate ovicides, such as amitraz; miticides, such as propargite and plant growth regulators, such as mepiquat.

#### RESISTANCE

To help prevent the development of resistance to Mustang Insecticide follow the steps listed below:

- Use Mustang Insecticide strictly in accordance with the current Insecticide Resistance Management Strategy for cotton.
- Cultivate all cotton fields as soon as possible after picking to destroy over-wintering pupae of *Helicoverpa armigera*.

## RESISTANCE WARNING GROUP 1B 3A INSECTICIDE

For insecticide resistance management Mustang Insecticide is both a Group 3A and a Group 1B insecticide. Some naturally occurring insect biotypes resistant to Mustang Insecticide and other Group 3A and Group 1B insecticides may exist through normal genetic variability in any insect population. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly. The effectiveness of Mustang Insecticide on resistant individuals could be significantly reduced. Since occurrence of resistant individuals is difficult to detect prior to use, FMC International A.G. accepts no liability for any losses that may result from the failure of Mustang Insecticide to control resistant insects.

Mustang Insecticide may be subject to specific resistance management strategies. For further information contact your local supplier, FMC International A.G. representative or local agricultural department agronomist.

### **RE-ENTRY TO TREATED FIELDS/CROPS**

Do not allow entry into treated areas until the spray has dried. When prior entry is necessary, wear cotton overalls buttoned to the neck and wrist and a washable hat and chemical resistant gloves. Clothing must be laundered after each day's use.

### **PROTECTION OF LIVESTOCK**

Dangerous to bees. DO NOT spray any plants in flower when bees are foraging. Spray in the early morning when bees are not actively foraging.

## PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

- Dangerous to aquatic life. DO NOT contaminate dams, ponds, waterways, drains or any other waters with the chemical, used container or equipment rinsings (SEE application directions for situations downwind of sensitive aquatic environments).
- DO NOT allow irrigation water from treated paddocks to enter adjacent pastures, crops or any other waters (except tailwater dams).
- DO NOT apply in strong winds, inversion conditions or any other conditions that may result in drift onto adjacent pastures crops orother waters.

### Ancillary Panel (cont)

20L and 200L containers only

STORAGE, SPILLAGE AND DISPOSAL

Store in a locked room or place away from children, animals, food, feed stuffs, seed and fertilisers.

<u>Spillage</u> - In case of spillage, confine and absorb spilled product with absorbent material such as sand, clay or cat litter. Dispose of waste as indicated below or according to Australian Standard 2507 - Storage and Handling of Pesticides. Do NOT allow spilled product to enter sewers, drains, creeks or any other waterways.

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 or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers 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. Do not re-use empty containers.

110L and 1000L containers only

STORAGE, SPILLAGE AND DISPOSAL

Store in a locked room or place away from children, animals, food, feed stuffs, seed and fertilisers.

<u>Spillage</u> - In case of spillage, confine and absorb spilled product with absorbent material such as sand, clay or cat litter. Dispose of waste as indicated below or according to Australian Standard 2507 - Storage and Handling of Pesticides. Do NOT allow spilled product to enter sewers, drains, creeks or any other waterways.

Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

#### SAFETY DIRECTIONS

Product and spray are poisonous if swallowed. Repeated minor exposure may have a cumulative poisoning effect. Obtain an emergency supply of atropine tablets 0.6mg. Facial skin contact may cause temporary facial numbness. Will damage eyes and skin. Avoid contact with eyes and skin. When preparing and using the prepared spray, wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow length PVC gloves and goggles. If clothing becomes contaminated with product or wet with spray remove clothing immediately. If product or spray on skin, immediately wash area with soap and water. If product or spray 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, goggles and contaminated clothing.

## FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 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.

## MATERIAL SAFETY DATA SHEET

Additional information is listed in the **MSDS FMC/MUST/1**, which is available from the supplier.

#### WARRANTY

FMC makes no warranty expressed or implied, concerning the use of this product other than that indicated on the label. Except as so warranted the product is sold as is. Buyer and user assume all risk of use and/or handling and/or storage of this material when such use and/or handling and/or storage is contrary to label instructions.

UN 2902	PESTICIDES, LIQUID, TOXIC, NOS*
	(Contains 36% Ethion +
	2% Zeta-cypermethrin)
In a Transport Emergency	Specialist Advice
Dial 000	1800 066 355
Police or Fire Brigade	
PG III	HAZCHEM 2XE

BATCH NO.

DATE OF MANUFACTURE:

NRA Approval Number: 51352/1200

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