



Product Name: COMMAND 480 EC HERBICIDE
APVMA Approval No: 49604/127877

Label Name:	MAGISTER COMMAND 480 EC HERBICIDE
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Signal Headings:	POISON KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
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Constituent Statements:	480 g/L CLOMAZONE 450 g/L HYDROCARBON LIQUID
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Mode of Action:	GROUP Q HERBICIDE
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Statement of Claims:	For the control of certain annual broad leaf weeds in Cucurbits, Green Beans, Navy Beans, Potatoes, Poppies, Rice and Tobacco as per the Directions for Use Table.
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Net Contents:	1L -110L
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Restraints:	<p>REGISTERED CROPS RESTRAINTS: DO NOT apply by aircraft or through irrigation equipment. DO NOT apply more than a combined total of 2L/ha on any one paddock in any 12 month period. DO NOT apply in fog or in conditions conducive to fog. DO NOT apply to soil intended for seedling transplants, with the exception of tobacco. DO NOT mechanically incorporate Command into soil. DO NOT apply to soils with both organic carbon content less than 2% and clay content less than 15%, excluding poppy and tobacco crops which have a higher crop tolerance to clomazone at label rates.</p> <p>How to use tables: 1. Select rate, or rate range, for use in your crop from Table 1. 2. Check crop tolerance using crop tolerance soil type (Table 2) of the soil that your crop is to be grown in, to determine maximum crop tolerance range. Crop damage may occur if using rates higher than shown in Table 2.</p>
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Note: Use lower rate (500 mL/ha) in combination with other post plant pre – emergent herbicides to broaden weed spectrum.

RICE

RESTRAINTS:

DRILL AND PASTURE SOD SOWN RICE – APPLICATION PRIOR TO PERMANENT WATER

Restrains:

DO NOT apply from the air by helicopter or fixed wing aircraft.

DO NOT use in crops other than rice.

DO NOT apply Stam* within 14 days of applying insecticides to avoid serious damage to rice.

DO NOT apply to the variety Illabong.

DRILL, SOD SOWN, DRY BROADCAST AND AERIAL SOWN RICE – APPLICATION AT INUNDATION

Restrains:

DO NOT apply by air by helicopter or fixed wing aircraft.

DO NOT apply with a boom spray.

DO NOT use in crops other than rice.

DO NOT apply to the variety Illabong established by the following methods - drill, sod or dry sown prior to permanent flood water.

DRY BROADCAST AND AERIAL SOWN RICE – FLOODED BAY – PRIMER TREATMENT IN A SPLIT APPLICATION

Restrains:

DO NOT apply Command tank mixes into permanent flood water by helicopter or fixed winged

aircraft fitted with a conventional multi nozzle boom.

DO NOT apply with a boom spray.

DO NOT use this application sequence with Saturn* on long grain rice varieties.

DO NOT use in crops other than rice.

DO NOT apply to the variety Illabong established by dry broadcast sowing prior to permanent flood water.

DRY BROADCAST AND AERIAL SOWN RICE – FLOODED BAY - SINGLE APPLICATION

Restrains:

DO NOT apply into permanent flood water by helicopter or fixed-winged aircraft fitted with a conventional multi nozzle boom.

DO NOT apply with a boom spray.

DO NOT use in crops other than rice.

DO NOT apply to the variety Illabong established by dry broadcast sowing prior to permanent flood water.

Directions for Use:

Other Limitations:

Withholding Periods:

RICE

HARVEST: NOT REQUIRED WHEN USED AS DIRECTED

GRAZING: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 3 MONTHS AFTER APPLICATION.

ALL OTHER CROPS

	<p>HARVEST: Not required when used as directed. GRAZING: Do not graze or cut for stock food until after harvest.</p>
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Trade Advice:	
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General Instructions:	
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Resistance Warning:	<p>RESISTANT WEEDS WARNING GROUP Q HERBICIDE</p> <p>Magister Command is a member of the Isoxazolidinone group of herbicides. Magister Command has the inhibitors of carotenoid biosynthesis mode of action. For weed resistance management Magister Command is a Group Q Herbicide. Some naturally occurring weed biotypes resistant to Magister Command and other Group Q herbicides may exist through normal genetic variability in any weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by Magister Command or other Group Q Herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, FMC Australasia Pty Ltd. accepts no liability for any losses that may result from the failure of Magister Command or other Group Q Herbicides.</p>
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Precautions:	
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Protections:	<p>PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS DO NOT apply under meteorological conditions or from spray equipment, which could be expected to cause spray drift onto nearby susceptible plants (including residential and other gardens), adjacent crops, crop lands or pastures.</p> <p>PROTECTION OF WILDLIFE, FISH, CRUSTACEANS, AND ENVIRONMENT DO NOT contaminate dams, streams, rivers or waterways with Command or used container.</p> <p>DO NOT DRAIN RICE WATER INTO REGIONAL DRAINS WITHIN THE WITHHOLDING PERIOD, AFTER COMMAND OR COMMAND TANK MIX APPLICATION (MINIMUM 28 DAYS FOR TAIPAN), AS DEFINED BY THE LOCAL IRRIGATION AUTHORITY AND/OR THE NSW ENVIRONMENT PROTECTION AUTHORITY OR FOR 10 DAYS, WHICHEVER IS THE GREATER.</p>
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Storage and Disposal:	<p>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. Refillable containers Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.</p>
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Safety Directions:	SAFETY DIRECTIONS Harmful if inhaled or swallowed. Will irritate the eyes and skin. Avoid contact with eyes and skin. DO NOT inhale vapour. When opening the container and preparing spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing), elbow length nitrile gloves and face shield or goggles. When using the prepared spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and elbow length nitrile gloves. If product in eyes, wash out immediately with water. Wash hands after use. After each day's use, wash gloves, face shield or goggles and contaminated clothing.
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First Aid Instructions:	If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26, New Zealand 0800 764 766. If swallowed, do NOT induce vomiting.
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First Aid Warnings:	
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DIRECTIONS FOR USE FOR - REGISTERED CROPS EXCEPT RICE

CROP	WEEDS CONTROLLED	RATE	CRITICAL COMMENTS
Cucumber, Pumpkins, Kabocha squash, Rockmelons, Watermelon, & Zucchini	Apple of Peru (<i>Nicandra physalodes</i>),	0.5 – 1L/ha	DO NOT apply to soil intended for cucurbit seedling transplants. Watermelons are sensitive to Magister Command. Only the minimum suggested rate should be used.
	Blackberry Nightshade (<i>Solanum nigrum</i>), Fat hen (<i>Chenopodium album</i>),		Apply post plant pre-emergence before weeds emerge. Some cucurbit varieties may show differing levels of tolerance to Magister Command. See section on SYMPTOMS. Use lower rates in combination with other post plant pre-emergent herbicides to broaden weed spectrum.
Green Beans (French beans)	Pig Weed (<i>Portulaca oleracea</i>),	0.5 – 1L/ha	Apply post plant pre-emergence before weeds emerge. Magister Command can be used in tank mix with other post plant pre-emergent herbicides. Use lower rates in combination with other post plant pre-emergent herbicides to broaden weed spectrum.
Navy Bean	Potato Weed (<i>Galinsoga parviflora</i>),	0.5 – 1L/ha	Apply post plant pre-emergence before weeds emerge. Magister Command can be used in tank mix with other post plant pre-emergence herbicides. Use lower rates in combination with other post plant pre-emergent herbicides to broaden weed spectrum.
Poppies (Tas only)	Amaranth (<i>Amaranthus powellii</i>) (Suppression only)		Apply post emergence to actively growing weeds as early as the 2 leaf stage of the crop through to the 8 leaf stage. Magister Command is compatible with other poppy herbicides. To broaden weed spectrum, Magister Command can be used in tank mixes or in a multiple spray strategy with other poppy herbicides. Use higher rates on heavier soil types and lower rates on sandy, low organic matter soils. Use in accordance with advice from contracting Company's Advisory Officers.
Poppies (Tas only)	Amaranth (Suppression only)	0.5- 1 L/ha	Use the lower rate for small weeds cotyledon to 2 leaf in size. Use the higher rate for high weed pressure or weeds 4-6 leaf in size.
	Fat Hen		Use the lower rate for small weeds cotyledon to 2 leaf in size. Use the higher rate for high weed pressure or weeds 2-4 leaf in size.
	Hogweed (<i>Polygonum aviculare</i>)	0.25 - 0.5 L/ha	Use the lower rate for small weeds cotyledon 2 leaf in size. Use the higher rate for high weed pressure or weeds 2-4 leaf in size.
	Stagger Weed (<i>Stachys arnensis</i>)	0.5 L/ha	Apply at the cotyledon to 4 leaf stage.
	Wild radish (<i>Raphanus raphanistrum</i>) (Suppression only)	1 L/ha	Apply at the cotyledon to 4 leaf stage. Useful suppression only may be achieved. If weed population is high or weeds are greater than 4 leaf in size, use a dedicated wild radish herbicide.
Potatoes (Tas only)	Apple of Peru, Blackberry nightshade, Fat hen,	0.5 L/ha	Apply Magister Command in tank mixes with other post plant pre-emergence herbicides to broaden weed spectrum. Apply post plant pre-emergence before weeds emerge. Do not apply to emerged potatoes as crop injury may occur.
Tobacco (Transplanted tobacco only. Do not use on seedling beds.)	Pig Weed, Potato Weed, Amaranth (Suppression only)	1-2 L/ha	Apply pre transplant or up to 7 days post transplant before weeds emerge. If weeds have emerged before application can be made, cultivate shortly before or at the time of treatment, or if prior to planting use in a tank mix with a knockdown herbicide. Use higher rates when high weed pressure is expected or in heavier soil types. Use lower rates on sandy, low organic matter soils.

DIRECTIONS FOR USE FOR - RICE

DRILL AND PASTURE SOD SOWN RICE – APPLICATION PRIOR TO PERMANENT WATER

CROP	WEEDS CONTROLLED	RATE	CRITICAL COMMENTS
Rice Application prior to PERMANENT WATER to drill or sod sown crops.			<p>Application prior to Permanent Water: Rice seed should be sown shallow to encourage rapid emergence which will allow permanent water to be applied earlier. In a sod sown situation the pasture must be properly controlled before the Magister Command tank mixes are applied. Apply the tank mixes by boom spray to give uniform and thorough coverage of the soil and weeds – refer to directions in Application section.</p>
	Barnyard grass <i>Echinochloa spp.</i> Silver top grass <i>Leptochloa fusca</i>	500 to 600 mL/ha plus Paraquat (250 g/L) 800 mL/ha	<p>Apply to dry soil after the first flush but prior to crop emergence when grass weeds are up to 1 leaf in size. Use of the higher rate will provide slightly longer residual control of grass weeds but may increase early crop effect. A second flush irrigation or rainfall is required within 5 days to activate the Magister Command. Permanent water needs to be applied within 2 weeks of application to minimise likelihood of late germinations of barnyard grass. Carefully inspect bays prior to permanent flooding for late germinations of barnyard grass and re-treat with an alternate product if required. Refer to the paraquat product label before applying this mixture.</p>
	Barnyard grass <i>Echinochloa spp.</i> Silver top grass <i>Leptochloa fusca</i>	500 to 600 mL/ha plus Stam* 7.5 L/ha	<p>Apply prior to permanent water to emerged rice and barnyard grass up to 4 leaf in size. Allow 1 to 5 days between application and flooding by permanent water. To assist weed control fully submerge grass weeds with permanent water for as long as the rice will tolerate before allowing flood levels to abate. Warm day temperatures after application eg 25-26°C are required for effective results. Refer to the Stam label before applying this mixture. Transient bleaching, yellowing or leaf burn of rice seedlings can occur following application of this mix. In most cases seedlings usually recover rapidly.</p>

DRILL, SOD SOWN, DRY BROADCAST AND AERIAL SOWN RICE – APPLICATION AT INUNDATION

CROP	WEEDS CONTROLLED	RATE	CRITICAL COMMENTS
Rice Application AT INUNDATION to permanent flood water in drill or sod sown, dry sown and aerial sown crops.	Barnyard grass <i>Echinochloa spp.</i>	600 mL/ha	Application at Inundation: Optimum control is achieved by ensuring seedbed is free of germinated grasses prior to flooding. Dilute Magister Command in water and apply as a drip at inundation to permanent flood water using a constant head siphon up to the 4 leaf rice stage. Refer to general instructions for application and water management details. Apply to weeds up to 2 leaf in size (or up to the 4 leaf stage in dry sown and aerial sown crops).
	Silver top grass <i>Leptochloa fusca</i>	600 mL/ha	Apply to weeds up to 2 leaf in size.

DRY BROADCAST AND AERIAL SOWN RICE – FLOODED BAY – PRIMER TREATMENT IN A SPLIT APPLICATION

CROP	WEEDS CONTROLLED	RATE	CRITICAL COMMENTS
Rice Application to PERMANENT WATER to crops established by aerial sowing or broadcast onto soil surface prior to permanent flood.	Barnyard grass <i>Echinochloa spp.</i> Silver top grass <i>Leptochloa fusca</i>		Application to Permanent Water: To achieve optimum control ensure seedbed is free of germinated grasses prior to flooding. Apply by SCWIIRT method direct to the floodwater of permanently flooded bays by tractor, 4WD motorbike, helicopter or fixed wing aircraft fitted with a Bickley boom. Apply to flood water from pre sowing up to the 2-leaf rice stage. Lock up bays prior to application to cease water movement. Refer to General Instructions for application and water management details.
		250-300 mL/ha + Taipan* 2 L/ha	1st Application – Pre-sowing Apply to newly flooded bays prior to weed germination. Use the low rate only under situations of low anticipated weed pressure. The higher rate will provide more reliable control where some weeds may have commenced germination or where weed levels are expected to be high. If silver top grass is expected to be a major problem use the full rate (600 mL/ha) of Magister Command – refer to the “Application into permanent water – single application” section in the general instructions. Refer to the Taipan label for full directions before applying this mixture.

		Saturn* 2.75-3.75 L/ha or Ordram* 2.5-3.75 L/ha	2nd Application – Post-sowing If following with Saturn refer to the Saturn label for full directions before applying. If using Saturn barnyard grass must be at the 0 to 3 leaf stage at application. Use of the higher rate may give slightly more reliable control of barnyard grass but may also increase crop effect. Use the lower rate of Ordram when barnyard grass is at the 0 to 2 leaf stage. Use the higher rate if barnyard grass is at the 1 to 4 leaf stage and silver top grass is up to 2 leaf stage. Refer to the Ordram label for full directions before applying this mixture.
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DRY BROADCAST AND AERIAL SOWN RICE – FLOODED BAY - SINGLE APPLICATION

CROP	WEEDS CONTROLLED	RATE	CRITICAL COMMENTS
Rice Application to PERMANENT WATER to crops established by aerial sowing or broadcast onto soil surface prior to permanent flood			Application to Permanent Water: To achieve optimum control ensure seedbed is free of germinated grasses prior to flooding. Apply by SCWIIRT method direct to the floodwater of permanently flooded bays by tractor, 4WD motorbike, helicopter or fixed wing aircraft fitted with a Bickley boom. Apply to flood water from pre sowing up to the 2-leaf rice stage. Lock up bays prior to application to cease water movement. Refer to General Instructions for application and water management details. PLEASE READ RICE SAFETY SECTION BEFORE APPLICATION
	Barnyard grass <i>Echinochloa spp.</i>	400 mL/ha	Apply to small weeds up to 2 leaf in size.
		500 mL/ha	Apply when high barnyard grass populations are expected or weeds up to 3 leaf in size.
		600 mL/ha	Use the highest rate when a range of weed sizes occur up to 4 leaf in size.
Silver top grass <i>Leptochloa fusca</i> (suppression only)	500 mL/ha	Apply to small weeds up to 1 leaf in size.	
	600 mL/ha	Use the higher rate when high silver top populations are expected or weeds are at the 2 leaf stage.	

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

REGISTERED CROPS

GENERAL INSTRUCTIONS

Magister Command® 480 EC Herbicide is primarily a soil applied herbicide for the control of certain annual weeds. Plant uptake of Magister Command occurs through both the roots and the foliage. The movement of the active constituent clomazone within the plant occurs upward and outwards to the leaf. Clomazone is not downward, systemic, or translocated from leaf to leaf. When using Magister Command as a post plant pre-emergence herbicide all emerged weeds should be controlled by application of a non-selective, non-persistent herbicide or by tillage. The soil surface should be left free of large clods of soil that might protect weed seedlings during emergence. Best weed control is achieved when overhead irrigation is used to grow the crop. Magister Command should not be mechanically incorporated into the soil as unacceptable crop injury and variable weed control may occur. When using Magister Command as a post emergence herbicide ensure weeds are young and actively growing.

Table 2 is a crop tolerance calculator for use with all crops with the exception of Poppies and Tobacco which have a higher crop tolerance to clomazone at label rates.

Table 2. Maximum crop tolerance recommended rates based on soil type (clay and organic carbon content).

Soil texture	Clay content	Organic Carbon Content			
		< 1%	1- <2%	2-3%	>3%
Sand, Loamy Sand, Silt	<15%	Only use in poppies and tobacco		500 mL	500 mL
Loam, Sandy Loam, Silt Loam, Sandy Clay loam	15 -30%	Only use in poppies and tobacco	500 mL	500 mL	1 L
Sandy Clay, Clay Loam, Silt Clay Loam, Silty Clay, Clay	>30%	500 mL	500 mL	1 L	1 L

SYMPTOMS

Clomazone, the active constituent Magister Command, inhibits the biosynthesis of photosynthetic pigments of both chlorophyll and carotenoids. Accordingly, the foliage of susceptible plants show signs of chlorosis (whitening or bleaching), followed by necrosis (browning). In some situations, one or more of the following conditions such as; higher use rates, sandy soils, soils of low organic matter, or soils of low pH, may cause an increase in the activity of Magister Command and crop damage may occur. Do not apply Magister Command on to soils with both organic carbon content less than 2% and clay content less than 15%, excluding poppy and tobacco crops, which have a higher crop tolerance to clomazone at label rates. Some crop varieties may show differing levels of tolerance to Magister Command. It is recommended to test on a small area to ensure tolerance is acceptable before adoption on a wider scale. For more specific information consult with your local dealer.

COMPATIBILITY

Magister Command® 480 EC Herbicide may be tank mixed with other post plant pre emergent herbicides to broaden the weed control spectrum compared to products applied alone. Lower rates of Magister Command may be used when tank mixing.

POPPIES - Magister Command® 480 EC Herbicide is compatible with Asulox*, Brodal* and Frontier*. Magister Command is not compatible with Trammat* and efficacy can be reduced in tank mixes using Starane*. Other herbicide combinations should be used with caution and in accordance to advice from contracting Company's Advisory Officers.

OTHER CROPS - when tank mixing with other herbicides (eg: Frontier*) refer to both product labels to ensure use patterns are compatible ie. post plant pre-emergence and observe all application precautions, rotational guidelines and replanting instructions of each product label.

MIXING

Add half the required volume of water in spray tank and start agitation. If tank mixing with wettable powders or Water Dispersible Granules add these first, Liquid Suspensions (ie. Flowables) are added next, and Magister Command is added last. Maintain good agitation at all times until spraying is completed.

APPLICATION

Inappropriate application techniques can result in highly visible symptoms of spray drift. Magister Command can be applied as a broadcast or banded application. Use conventional sprayers with either mechanical or by-pass agitation. Apply using flat fan nozzles producing medium to coarse droplets, Spray equipment should be properly calibrated to ensure correct application. To minimise off target movement use the lowest pressure and boom height which provides uniform coverage, using 150 to 400 litres per hectare. Do not apply to very wet soils or to soils with a rough surface.

Band spray rate

The rate of Magister Command for band spraying per hectare of crop is calculated from the broad area rates as follows · -

$$\frac{\text{Band width (cm)} \times \text{Broadcast Rate (L)}}{\text{Row spacing (cm)}} = \text{Band Rate (L) per hectare of crop for band spraying}$$

OFF TARGET WHITENING

Magister Command can cause whitening of sensitive plants (ie. some species of trees, shrubs, flowers, agronomic crops and fruit and vegetables) by either spray drift or volatilisation. The application and recommendation for the use of this product should be undertaken only by persons adhering to the following requirements:

Precautions to be taken to minimise potential off-target effects:

- DO NOT spray within 100 metres of residential or industrial properties or homes on neighboring properties,
- Where it is proposed to spray within 100 metres of a neighbouring property which is used for primary production, the owner of the property must be given written notice of the intention to spray and information which includes the name of the product being sprayed and its effects on susceptible plant species,
- Ensure that when the product is being diluted prior to application that it is done away from desirable plants,
- DO NOT empty or clean sprayers near homes and sensitive plants,
- DO NOT apply by aircraft, or through irrigation equipment, and
- Remove contaminated clothing before entering areas where sensitive plants exist e.g. homes, nurseries, greenhouses and other crops.

Application equipment/calibration:

- Use coarse nozzles with pressure not exceeding 35PSI/250 kPa (2.5 bar) with boom height no greater than 60 cm above the target, and
- Apply only with calibrated equipment.

Minimisation of product volatilisation:

- Apply to dry soils in 150-400L water per hectare,
- DO NOT apply to wet soils and or wet plants,
- DO NOT spray poppy crops beyond the 8 leaf stage,

- DO NOT apply in wind gusts over 12km/hr or when weather conditions favor the formation of inversion layers,

- Weather resulting in warm, high moisture soils increase the volatility potential of Magister Command.

Sunlight may also heat the soil surface, evaporating soil moisture and causing an inversion effect. This inversion effect causes the product to move to the soil surface where it is more subject to volatilisation, and

- DO NOT apply in fog or in conditions conducive to fog.

RICE

GENERAL INSTRUCTIONS

Magister Command® Herbicide is a short residual, water applied herbicide for the control of certain grass weeds in direct seeded rice crops. Plant uptake of Magister Command occurs through both the roots and the foliage. The movement of the active constituent clomazone within the plant occurs upward and outwards to the leaf. Clomazone is not downward systemic, nor translocated from leaf to leaf.

Minimum Recropping Intervals For Magister Command

Minimum Recropping INTERVAL (months after application)						
Other crops						
Rate	0	3	6	9	12	15
0.5 L/ha or less	Poppies Potatoes Cucurbits Beans Tobacco Rice		Barley Oats Wheat Lucerne Rye grass Onions Canola Sub-clover	All other crops		
1 L/ha	Potato Cucurbits Beans Tobacco Rice	Poppies		Barley, Oats Wheat Lucerne Rye grass Onions Canola Sub-clover	All other crops	
2 L/ha	Cucurbits Beans Tobacco	Potato Poppies Rice			Barley, Oats Wheat Lucerne Rye grass Onions Canola Sub-clover	All other crops

Tolerance of other crops (grown through to maturity) should be determined on a small scale before sowing into larger areas. Cover crops, however may be planted anytime but stand reductions may occur in some areas. Do not graze, or harvest for food or feed, cover crops.

Replanting: If initial seedlings fail to produce a stand, the crop maybe replanted in fields treated with Magister Command alone. Do not retreat field with a second application of Magister Command. Do not replant treated fields with any crop at intervals, which are inconsistent with the rotational crop guidelines on this label. When tank mixing observe all application precautions, rotational guidelines and replanting instructions of each product label.

OFF TARGET WHITENING

The effects may last a few weeks and plants usually grow out of it with no long term effect. This phenomenon is unlikely to occur following application into permanent water in rice. However, drift could occur following aerial application through the Bickley boom or by ground application when used prior to permanent water. The following general steps should be taken to minimise the likelihood of this whitening occurring: -refer to the specific use patterns for more detailed recommendations.

General:

1. Ensure that when the product is being diluted prior to application that it is done away from desirable plants such as roses, ornamentals and vines.
2. DO NOT empty or clean application equipment near homes or sensitive plants.
3. Remove contaminated clothing before entering areas where sensitive plants exist e.g. homes, nurseries or green houses.
4. Apply only with calibrated equipment.
5. DO NOT apply with a boom spray except when applying as per the **Application prior to permanent water:** situation.

Application prior to permanent water:

1. Do not spray within 100 metres of residential or industrial properties or homes on neighbouring properties.
2. Do not apply by air.
3. Apply only with calibrated equipment.
4. Apply as a broadcast spray using flat fan nozzles producing medium to coarse droplets with pressure not exceeding 250 kPa and with boom height no greater than 60 cm above the target.
5. Apply to dry soils in 100-150 L water per hectare.
6. Do not apply to wet soils and/or wet plants.

Application to permanent water:

1. Apply only with calibrated equipment.
2. Refer to Application section for specific details. Apply as a drip at inundation using a constant head siphon or
3. Apply to flooded bays using the standard SCWIIRT method by tractor, 4 wheel agricultural motorbike or helicopter using 5-10 litres of water per hectare or
4. Apply as an aerial SCWIIRT method by fixed wing aircraft fitted with a Bickley boom, using 10 to 20 litres of water per hectare. For application by fixed-winged aircraft only use the Bickley boom SCWIIRT method.
5. Bays should always be sprayed downwind from susceptible crops or properties or environmentally sensitive areas.
6. Do not spray within 300 m upwind or 50 m downwind of susceptible crops or properties or environmentally sensitive areas.
7. Do not spray right to ends and sides of bays to be treated.
8. Ensure nozzles are shut off before leaving last bay to be treated.

MIXING**APPLICATION**

Inappropriate application techniques can result in highly visible symptoms of spray drift.

Magister Command can be applied:

- prior to permanent water by ground boom spray only, and
- to permanent water by drip applicator at inundation of the permanent flood water, or by SCWIIRT application direct to the water surface of permanently flooded bays, via a properly equipped and calibrated ground sprayer, helicopter or fixed wing aircraft fitted with a Bickley boom. Refer to the following relevant sections for more detailed information.

Application prior to permanent water: Always apply Magister Command with either Shirquat* or with Stam* as per the Critical Comments. Apply as a broadcast spray using flat fan nozzles producing medium to coarse droplets with pressure not exceeding 250 kPa and with boom height no greater than 60 cm above the target. To minimise off-target movement use the lowest pressure and boom height that provides uniform coverage using 100 – 150 litres per hectare. Do not apply to wet soils or wet plants. Do not spray within 100 metres of residential or industrial properties or homes on neighbouring properties.

Application at inundation: For drip treatment, dilute Magister Command at the ratio of 3 litres to 17 litres of clean tap water and apply this solution at a rate of 4 L/ha. A constant head siphon with a single CP4916 TeeJet flow regulator fitted with a disk orifice plate is recommended to apply the drip treatment into the floodwater at inundation. Refer to a Magister Command calibration chart to guide selection of the appropriate orifice plate. The preferred method of inundation is to drip into individual bays or by a backfill system utilising a side channel, rather than top filling or flooding through the upper bays.

Application into permanent water – primer treatment in a split application: It is essential that both the 1st and 2nd applications are applied. The 1st (pre-sowing) application suppresses weed germinations allowing the rice to develop to the secondary root stage at which time the 2nd (post-sowing) application is required for the control of emerging weeds, completing the herbicide program. If one application is applied without the other the technique will result in unsatisfactory weed control. For the 1st application follow the application directions in the section **Application into permanent water – single application.**

Application into permanent water – single application: Apply by the SCWIIRT method using a tractor, 4 wheel agricultural motorbike, helicopter or fixed wing aircraft fitted with a Bickley boom. Apply to flood water from pre-sowing, up to the 2 leaf rice stage. Because of the solubility of clomazone and redistribution in water, Magister Command does not need to be applied right to the edges of the bay. Ground / helicopter application: Dilute the required amount of Magister Command in water (5 to 10 litres/ha) and apply to flooded bay at a distance of 20 to 30 metres between runs. Position dripper nozzles no more than 50 cm from the water surface and maintain pressure at or below 200 kPa (30 PSI or 2 bar). Fixed wing (Bickley boom) application: Magister Command must only be applied from a fixed wing aircraft fitted with a Bickley boom which comprises the following:

Two nozzles mounted on droppers, one either side with droppers positioned just outside the first boom hanger (28 – 35% of wingspan); Dropper length approximately 40-60 cm or lower below the trailing edge of the wing; Solid stream nozzles with bore sufficient to apply desired volume at a pressure of 240 to 310 kPa (35 to 45 psi); Nozzles orientated rearwards and parallel to the airstream; Check valves (Spraying Systems diaphragm type 12328, 3/4 inch) located behind nozzle to eliminate “trailing” after shut off; Spray at a maximum wheel height of 2m above the field surface. Swath widths of approximately 25 m are recommended.

Dilute the required amount of Magister Command in water (10 to 20 Litres/ha) spray solution and apply to flooded bay. Before commencing aerial application to contoured bays evaluate the layout of the bays to be treated and select the optimum flight pattern to ensure all bays receive the recommended rate of Magister Command.

WATER MANAGEMENT

Application prior to permanent water in drill and sod sown rice:

Refer to the Critical Comments for more detailed information.

Application to permanent water:

It is essential to prevent water movement for at least 3 days after treatment of Magister Command. Floodwater must cover all ground to a sufficient depth at application to maintain water cover until water can be added after the 3 day period. Water levels should then be restored and a continuous uniform depth maintained to assist in weed control. For best results when applying by SCWIIRT, lock up bays prior to application to cease water movement.

Do not drain rice water into regional drains within the withholding period, after Magister or Magister tank mix application (minimum 28 days for Taipan*), as defined by the Local Irrigation Authority and/or the NSW Environment Protection Authority or for 10 days, whichever is the greater.

COMPATIBILITY: Magister Command may be tank mixed with other herbicides to broaden the weed control spectrum compared to products applied alone.

Magister Command is compatible with the herbicides containing:

Paraquat (eg FMC Paraquat 250)

Molinate (eg. Ordram) Propanil (eg. Stam

Thiobencarb (eg. Saturn*)

Bensulfuron (eg Londax*)

Benzofenap (eg. Taipan*)

Gator H2O

and the insecticides Dominex® Duo and chlorpyrifos.

SYMPTOMS

SAFETY

Transient bleaching of rice seedlings can occur in some circumstances particularly at the higher rates, in situations where rice seedlings protrude above the water level at time of application, and leaves are directly contacted by the concentrated emulsion or if the rice plant is under stress eg slime, salty or sodic soils or cold, deep or salty water. In most cases seedlings usually recover rapidly. The variety Illabong and Sempra are especially susceptible to bleaching. DO NOT apply to the variety Illabong established by the following methods - drill, sod or dry broadcast sown prior to permanent flood water.

Precautions for minimising risk of crop injury:

There are a number agronomic, climatic and edaphic factors that may increase crop injury after treatment with Magister Command Herbicide. These factors are often associated with general plant stress, which will lower the metabolism of the crop therefore making it more susceptible to the bleaching effect of Magister Command. These factors include:

- Water Management – design bay layout so to avoid irrigation water moving from bay to bay, as this may cause an accumulation of salts and soluble pesticides into the lower bays, therefore increasing rice injury in these bays. Areas where water may become stagnant can also increase the chances for elevated crop injury. A bank less channel design with irrigation supplying each bay independently is the preferred field layout for using Magister Command.
- Cooler than seasonal night time temperatures (eg: an unseasonal cold snap), causing the rice to become stressed which ultimately lowers the rice plant metabolism causing a predisposition for herbicidal injury
- Newly graded / levelled bays removes topsoil and organic matter, which may reduce adsorption of Magister Command to the soil, leading to higher concentration of Magister Command in the water profile.
- Soils classed as 'Sodic' (elevated soil sodium) will reduce the capacity for Magister Command to bind onto the soil. Therefore, a higher concentration of Magister Command will be present in the water profile.
- Deep, Muddy and/or Turbid water can affect absorption of Magister Command onto the soil surface, and also lower water temperatures
- High winds causing mechanical stress to the rice plant

If any of the above conditions (alone or in combination) are expected, consider using the lowest dose rate to avoid excessive bleaching of the crop. If the crop does become heavily bleached (eg. No signs of recovery within 1 week), refreshing the water usually allows the crop to make a full recovery with no impact on yield. In the case of refreshing water, ensure that the minimum lock up period is maintained before releasing into regional drains as defined in the WATER MANAGEMENT section of this label.