

# CAUTION

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

## Matrix<sup>®</sup> 500 Herbicide



ADAMA  
ESSENTIALS

ACTIVE CONSTITUENT: 500 g/L ETHOFUMESATE

GROUP **J** HERBICIDE

*For selective weed control in beet crops, certain non-crop areas, onions, oilseed poppies, ryegrass pastures and seed crops and established turf as specified in the Directions for Use table.*

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CONTENTS: 5 L, 20 L

**DIRECTIONS FOR USE:**

**Restrains:** DO NOT apply if rain is imminent or falling.  
DO NOT rotate with crops other than beet crops for 6 months after application.

CROP OR SITUATION	WEEDS CONTROLLED	STATE	RATE	WHP	CRITICAL COMMENTS
Beet crops eg., Beetroot, Fodder Beet, Mangolds, Sugar Beet	Barley Grass, Chickweed, Cleavers, Fat-hen, Fumitory, Prairie Grass, Redshank ( <i>Amaranthus</i> spp.), Shepherd's Purse, Summer Grass, Winter Grass, Wireweed	Qld, NSW, ACT, Vic, Tas, SA only	4 or 6 L/ha	–	<p><b>Pre-emergence:</b> Apply before weeds or crop emerge, either pre- or post-sowing of crops. Use high rate on heavy soil or where <i>Amaranthus</i> spp., Prairie Grass or Wireweed are a problem. DO NOT re-treat area at these rates.</p> <p><b>Post-emergence:</b> <b>Crop Stage:</b> Apply at 2 to 4 leaf stage. <b>Weed Stage:</b> Apply when weeds are no larger than 2-4 leaf stage, either as a band spray or overall application. DO NOT spray beets using high pressure. DO NOT spray beet crops when foliage is wet.</p>
			2 L MATRIX 500 plus 5 L Betanal*/ha		
Oilseed Poppy	Barley Grass, certain broadleaved and grass weeds particularly Clovers, Cruciferous Weeds, Fat-hen, Fumitory, Winter Grass, Wireweed	Tas only	400 mL to 2 L/ha	–	The range of control is extended with spray programs in combinations with asulam, diclofop-methyl and diquat as recommended by poppy contracting companies or the Department of Primary Industry. DO NOT add wetting agent.
Onions	Barley Grass, certain broadleaved and grass weeds, Clovers, particularly Cruciferous Weeds, Fat-hen, Fumitory, Winter Grass, Wireweed		600 mL to 1.2 L/ha	13 weeks	<p>Apply after 2 leaf stage of crop. DO NOT add wetting agent. Follow up with spray programs using alternative herbicides as recommended by the Department of Primary Industry, or contracting companies for use in onions.</p> <p>This mixture, and follow-up spray programs with alternative herbicides should be used according to recommendations by the Department of Primary Industry or contracting companies. Apply after 2 leaf stage of crop. DO NOT add wetting agent to MATRIX 500.</p>
			1 L to 1.2 L plus 2.8 kg active constituent chlorpropham/ha		

CROP OR SITUATION	WEEDS CONTROLLED	STATE	RATE	WHP	CRITICAL COMMENTS
Ryegrass pasture and seed crops also, Non-Crop areas (stock camps, tree plantations, fence lines)	Barley Grass, Cleavers, emerged Brome Grass, seedling Chickweed, Shepherd's Purse, Storksbill, Winter Grass	Vic, Tas only	3 L/ha	7 days	Apply (April-July) to moist soil after main germination of Barley Grass. DO NOT apply once Barley Grass reaches green flowerhead stage. DO NOT treat pastures where clover production is important. Use this rate when: 1. Annual rainfall is 250-750 mm. 2. Barley Grass is at very early growth stage (April to May). 3. Pasture has been closely grazed (less than 5 cm high). 4. Soil is low in organic matter (less than 10%). 5. There is a high proportion of ryegrass in pasture.
			4 L/ha		Use this rate when: 1. Annual rainfall exceeds 750 mm. 2. Barley grass is at early vegetative growth stage (April-July). 3. Pasture has been closely grazed (5-10 cm high). 4. Dung accumulations are present.
			300 mL per 100 L water		<b>Spot Treatment:</b> Apply by handgun or knapsack sprayer. Thoroughly wet vegetation.
Established turf; bent grasses (including Brown Top Bent), Kentucky Blue-Grass, Kikuyu, Queensland Blue Couch, Ryegrass	Winter Grass ( <i>Poa annua</i> )	NSW, ACT, Vic, Tas, SA, WA only	800 mL in 400 to 600 L water/ha OR 8 mL in 4 to 6 L water per 100 m <sup>2</sup>	DO NOT GRAZE OR FEED TO ANIMALS	Apply first application one month before main Autumn germination (ie. apply in February to April but up to May in northern NSW). Repeat at monthly intervals for 3 to 4 months. In dry conditions, watering will improve residual action. After spraying, wait at least 12 hours before watering. Avoid flooding or ponding of treated turf. Preferably mow immediately before spraying, or leave as long as possible after spraying before next mowing (1 to 2 weeks if practicable). Water volume is not critical but avoid excessive overlapping and dripping from spray equipment onto turf. DO NOT add other herbicides or surfactants to this product for this use unless specifically recommended.

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

**WITHHOLDING PERIODS (WHP):**

**ONIONS:**

**DO NOT HARVEST FOR 13 WEEKS AFTER APPLICATION.**

**RYEGRASS PASTURE AND SEED CROPS:**

**DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION.**

**TURF:**

**DO NOT GRAZE TREATED AREAS OR FEED LAWN (TURF) CLIPPINGS FROM TREATED AREAS TO ANIMALS, INCLUDING POULTRY.**

## GENERAL INSTRUCTIONS RESISTANT WEEDS WARNING

MATRIX<sup>®</sup> 500 Herbicide is a member of the Benzofuran group of herbicides. MATRIX 500 is a herbicide with inhibitors of fat synthesis (not AACase inhibitors) mode of action. For weed resistance management MATRIX 500 is a Group J herbicide.

GROUP **J** HERBICIDE

Some naturally-occurring weed biotypes resistant to MATRIX 500, and other Group J herbicides may exist through normal genetic variability in any weed population. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by MATRIX 500 or other Group J herbicides.

Since the occurrence of resistant weeds is difficult to detect prior to use, Adama Australia Pty. Ltd. accepts no liability for any losses that may result from the failure of MATRIX 500 to control resistant weeds.

### GENERAL

The product is a pre- and post-emergence herbicide for control of certain broad-leaved weeds and grasses. For post-emergence applications, weeds should be at the seedling to 4 leaf stage. Prior to sowing any follow-up crops other than beet or ryegrass, those areas previously treated should be thoroughly tilled (including ploughing).

- 1. BEET CROPS:** Slight foliage distortion to beet may occur following treatment. These effects are short-lived and do not affect crop yield. Pre-emergence treatment with this product may be followed by post-emergence application of Betanal\* or a mixture of both.
- 2. USE OF MATRIX 500 IN MIXTURE WITH Betanal ON BEET CROPS:** Before using this mixture carefully read the Betanal label; note warning about use in temperatures above 30°C. For best results the interval between treatment and subsequent rainfall or irrigation should be at least six (6) hours. In Tasmania, this treatment should follow the use of a pre-emergence herbicide. This mixture is recommended to provide a wider spectrum of post-emergence weed control and longer residual activity than Betanal used alone. Weeds controlled include additional weeds listed on the Betanal label.
- 3. RYEGRASS:** This product will reduce clover stands by 40-60%. For best control of barley grass, apply to closely grazed pasture (3-5 cm high). Raw organic matter can reduce efficacy and retreatment may be necessary. Remove organic litter and harrow large dung pats before application. In areas of dense Barley Grass, drill or oversow with ryegrass as soon as possible after treatment.
- 4. TURF:** This selective herbicide should be applied before, or early after germination or emergence of Winter Grass (*Poa annua*) when it occurs in fine turf situations. It is selective in Ryegrass, Fescues, Kentucky Bluegrass, Queensland Blue Couch, Kikuyu, Bent grasses (including Brown Top Bent) and Couch, when applied as directed. Applications are made at monthly intervals for 3-4 months to control winter grass gradually, while allowing the desirable turf grasses to take over without unsightly bare patches of dead Winter Grass. Oversowing and reseeding should NOT take place within one month of spraying.

### MIXING

MATRIX 500 is a suspension concentrate which mixes easily with water. Prior to pouring, gently invert or roll container to ensure all active constituent is in suspension. Part-fill the spray tank with clean water. Add the correct amount of MATRIX 500 and top up with water to the required level. Thorough agitation of the mixture is necessary before spraying. Mix only enough chemical for immediate use. When using a mixture of MATRIX 500 and Betanal, half-fill spray vat with water then stir or agitate while adding the required quantities. Top up with water and stir again. Use as soon as possible after mixing. DO NOT add other herbicides or surfactants unless specifically recommended.

### APPLICATION

**Boom Spray:** Apply in a suitable volume of water to give good even coverage. When used pre-emergence, apply to moist soil surface. Ensure that the nozzles are set at the correct height to give even coverage ie. 50-60 cm above the pasture or crop. Use a nozzle and pressure combination to give a fine spray (200-300 kPa). Make sure nozzle tips are clean, undamaged and all the correct type and size. Impact nozzles or broadcast nozzle clusters should NOT be used. DO NOT use filter gauzes finer than 0.3 mm. After use, wash all equipment thoroughly with water containing liquid detergent. Spray out completely, then rinse twice with clean water. To allow air access, remove nozzles and open spray tank lid.

### PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

DO NOT apply weather conditions, or from spraying equipment, that may cause spray to drift onto nearby susceptible plants/crops, cropping lands or pastures.

### PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

DO NOT contaminate streams, rivers or waterways with this product or the used containers.

### STORAGE AND DISPOSAL

Store in the closed, original container in a cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight. It is recommended that the storage temperature never exceed 30°C. 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.

**For refillable containers,** empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

### SAFETY DIRECTIONS

May irritate the eyes and skin. Avoid contact with eyes and skin. Wash hands after use.

### FIRST AID

If poisoning occurs contact a doctor or Poisons Information Centre. Phone Australia 131126.

### MATERIAL SAFETY DATA SHEET

Additional information is listed in the material safety data sheet (MSDS). A material safety data sheet for MATRIX 500 is available from Adama on request. Call Customer Service on (02) 9431 7800.

**CONDITIONS OF SALE:** The use of MATRIX<sup>®</sup> 500 Herbicide being beyond the control of the manufacturer, no warranty expressed or implied is given by Adama 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 Adama Australia Pty. Ltd. accepts no responsibility for any consequence whatsoever from the use of this product.

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\* Other trademarks

**UN No 3082**  
**ENVIRONMENTALLY HAZARDOUS**  
**SUBSTANCE, LIQUID, N.O.S.**  
**HAZCHEM CODE: 3Z**  
**PACKAGING GROUP: III**



**NOT A DANGEROUS GOOD FOR ROAD AND RAIL**

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Date of Manufacture