

# CAUTION

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



## Encode<sup>®</sup> 500 WG

Herbicide

ACTIVE CONSTITUENT:

### 500 g/kg BUTROXYDIM

GROUP

1

HERBICIDE

For the control of certain grasses in a range of broadacre crops as per the directions for use.

Formulation type  
Water Dispersible  
Concentrate

WG



## ADAMA

adama.com

NET CONTENTS: 500 g – 20 kg

#### DIRECTIONS FOR USE

##### RESTRAINTS

DO NOT treat weeds that are not actively growing or are growing under stress. Under such circumstances the biological processes of the weeds slow down and ENCODE 500 WG transport in the weed can be drastically reduced, resulting in an incomplete kill or suppression only of the weeds.

DO NOT allow annual grass weeds to reach the late tillering stage before application.

DO NOT apply at flowering stage of weeds.

DO NOT apply under conditions of prolonged high or very low temperature (frosts), moisture stress (waterlogging or drought), low humidity, poor fertility or stress from previous herbicide application.

DO NOT apply at flowering stage of crop.

CROP	WEEDS CONTROLLED	WEED STAGE	STATE	RATE /ha	CRITICAL COMMENTS
Chickpeas Faba beans Field peas Lentils Linseed Lucerne Lupins Vetches ( <i>Vicia</i> spp.) White and Subterranean Clover and Medic pastures	Annual ryegrass ( <i>Lolium rigidum</i> ), Barley grass ( <i>Hordeum</i> spp.), Wild oats ( <i>Avena</i> spp.)	2 leaf to early tillering Zedoks 12-23	All States	40 to 90 g	Always apply with oil spray adjuvant at 1 L/100 L of spray solution. For aerial application apply oil spray adjuvant at a rate of 1 L/ha.  Use the lower rates for younger weeds growing actively under ideal conditions. Use the higher rates for weeds that are: - predominantly at early tillering, or - present in dense populations, or - growing in poor growing conditions, or - where weed resistance to Group 1 herbicides is suspected.  Due to extreme variations in cross resistance present in annual ryegrass populations there is no guarantee ENCODE 500 WG will always provide consistently high levels of control but trials have shown higher rates may be expected to perform better than lower rates.
	Annual ryegrass ( <i>Lolium rigidum</i> )  together with any of the following grasses:  Annual phalaris ( <i>Phalaris</i> spp.), Barley grass ( <i>Hordeum</i> spp.), Brome grass ( <i>Bromus</i> spp.), Volunteer cereals -Wheat ( <i>Triticum aestivum</i> ) -Barley ( <i>Hordeum vulgare</i> ) -Oats ( <i>Avena sativa</i> ) -Triticale (x <i>Triticosecale</i> ), Wild oats ( <i>Avena</i> spp.)			40 to 90 g  # plus an effective rate of a fop herbicide containing fl-uazifop, haloxyfop, propaquizafop or quizalofop	Always apply with oil spray adjuvant at 1 L/100 L of spray solution. For aerial application apply oil spray adjuvant at a rate of 1 L/ha.  ENCODE 500 WG has good activity on barley grass and wild oats but is weaker on brome grass and volunteer cereals so the addition of a partner fop herbicide is generally recommended where any of these other weeds occur together with annual ryegrass. For the partner herbicide use rates at the lowest end of the range recommended for the particular grass weed. Guidance can also be obtained from labelled tank mixes of the partner herbicide with other dim herbicides.  # Refer to the label of the partner herbicide for rates and specific directions for use.

CROP	WEEDS CONTROLLED	WEED STAGE	STATE	RATE /ha	CRITICAL COMMENTS
Canola (conventional TT, "IMI" varieties)	<p>Annual ryegrass (<i>Lolium rigidum</i>)</p> <p>together with any of the following grasses:</p> <p>Annual phalaris (<i>Phalaris</i> spp.),  Barley grass (<i>Hordeum</i> spp.),  Brome grass (<i>Bromus</i> spp.),  Volunteer cereals  -Wheat (<i>Triticum aestivum</i>)  -Barley (<i>Hordeum vulgare</i>)  -Oats (<i>Avena sativa</i>)  -Triticale (x <i>Triticosecale</i>),  Wild oats (<i>Avena</i> spp.)</p>	2 leaf to early tillering Zedoks 12-23	All States	<p>40 g</p> <p># plus an effective rate of a fop herbicide containing fluazifop, haloxyfop, propaquizafop, or quizalofop</p>	<p>Always apply with oil spray adjuvant at 1 L/100 L of spray solution. For aerial application apply oil spray adjuvant at a rate of 1 L/ha.</p> <p><b>Warning:</b> Canola can be sensitive to ENCODE 500 WG. DO NOT use more than 40 g/ha on canola.</p> <p>To minimise risk of crop damage, do not apply to any variety before the majority of plants (80%) are at the true 4 leaf stage (4th leaf expanded, 5th leaf emerging). Apply no later than the end of leaf development (Stage 1*) and prior to the commencement of stem elongation (Stage 3*). Refer to Crop Safety section. Under certain conditions, all varieties may exhibit leaf symptoms and/or reduced early competitiveness. If this occurs, canola yield may be reduced. Avoid spraying stressed crops as crops growing under stress will show slower recovery.</p> <p>Avoid spraying practices that lead to over application such as double overlap, and spraying out corners. ENCODE 500 WG has good activity on barley grass and wild oats but is weaker on brome grass and volunteer cereals. The addition of a partner fop herbicide (eg. A product containing haloxyfop 520 g/L) is generally recommended where any of these other weeds occur together with annual ryegrass. Use the partner at the lower end of the range recommended for the particular grass weed. Guidance can also be obtained from labelled tank mixes of the partner herbicide with other dim herbicides.</p> <p># Refer to the label of the partner herbicide for rates and specific directions for use.</p>

CROP	WEEDS CONTROLLED	WEED STAGE	STATE	RATE /ha	CRITICAL COMMENTS
Lucerne Mung beans Navy Beans Peanuts Soybeans	<i>Echinochloa</i> species -Awnless barnyard grass ( <i>E. colona</i> ) -Barnyard grass ( <i>E. crus-galli</i> ) -Japanese millet ( <i>E. utilis</i> )	2 leaf to early tillering Zadoks 12-23	Qld, NSW, Vic & NT only	60 g or 90 g	Always apply with oil spray adjuvant at 1 L/100 L of spray solution. For aerial application apply oil spray adjuvant at a rate of 1 L/ha.
Cotton	<i>Digitaria</i> species -Crab grass ( <i>D. sanguinalis</i> ) -Summer grass ( <i>D. ciliaris</i> )  <i>Chloris</i> species -Feather top Rhodes grass ( <i>C. virgata</i> ) -Windmill grass ( <i>C. truncate</i> )  <i>Setaria</i> species -Dwarf setaria ( <i>S. italica</i> ) -Whorled pigeon grass ( <i>S. verticillate</i> )  <i>Brachiaria</i> species -Green summer grass ( <i>B. subquadriflora</i> ) -Velvet grass ( <i>B. windsorii</i> )  Volunteer Crops - Maize ( <i>Zea mays</i> ) -Sorghum ( <i>Sorghum bicolor</i> )		Qld & NSW only		Use the lower rate for the control of seedling grasses at the pre-tillering growth stage and growing under good conditions.  Use the higher rate for control of grasses at the early tillering (2 to 3 tillers) growth stage.  Aerial application - see Spraying Instructions.
Sunflowers	Crowsfoot grass ( <i>Eleusine indica</i> ), Dinebra ( <i>Dinebra reflexa</i> ), Early spring grass ( <i>Eriochloa pseudoacritricha</i> ), Johnson grass ( <i>Sorghum halepense</i> ) (seedling), Liverseed grass ( <i>Urochloa panicoides</i> ), Spiny burr grass ( <i>Cenchrus incertus</i> )		Qld, NSW & Vic only		
	Eragrostis species -Elastic grass ( <i>E. tenuifolia</i> ) -Mexican love grass ( <i>E. mexicana</i> ) -Stink grass ( <i>E. cilianensis</i> )	2 leaf to 5 leaf but prior to tillering	Qld, NSW & Vic only	60 g	Always apply with oil spray adjuvant at 1 L/100 L of spray solution. For aerial application apply oil spray adjuvant at a rate of 1 L/ha. For the control of pre-tillering grasses only. Do not apply to tillered grasses
	Volunteer cereals -Wheat ( <i>Triticum aestivum</i> ) -Barley ( <i>Hordeum vulgare</i> )	2 leaf to early tillering Zadoks 12-22, prior to stem elongation		90 g	Always apply with oil spray adjuvant at 1 L/100 L of spray solution. For aerial application apply oil spray adjuvant at a rate of 1 L/ha. For the control of grasses from 2 leaf to early tillering only (max. 2 tillers), prior to stem elongation or booting.
	Other Grasses Coast button grass ( <i>Dactyloctenium aegyptium</i> ), Grader grass ( <i>Themeda quadrivalvis</i> )	2 leaf to 5 leaf but prior to tillering		90 g	Always apply with oil spray adjuvant at 1 L/100 L of spray solution. For aerial application apply oil spray adjuvant at a rate of 1 L/ha. Use for suppression only of pre-tillered grasses. Do not apply to tillered weeds.

**Note:** Does NOT control winter grass (*Poa annua*), Silver grass (*Vulpia* spp.), Nutsedge (*Cyperus* spp.) and broadleaf weeds.

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

#### WITHHOLDING PERIODS

##### HARVEST

**NOT REQUIRED WHEN USED AS DIRECTED.**

##### GRAZING

**Canola, Chick peas, Clover, Faba beans, Field peas, Lentils, Linseed, Lucerne, Lupins, Medics, Mung beans, Navy beans, Peanuts, Soybeans, Sunflowers, Vetches: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 14 DAYS AFTER APPLICATION.**

**Cotton: DO NOT GRAZE OR CUT FOR STOCKFEED. DO NOT FEED COTTON TRASH TO LIVESTOCK.**

## GENERAL INSTRUCTIONS

### Stress conditions

Moisture stress is a particular problem, whether caused by drought or short term stresses, resulting from a combination of high temperatures and low humidity or by prior use of pre-emergence herbicides resulting in stunted root growth of weeds. An irrigation or effective rainfall must occur immediately before or after spraying if these conditions exist. Other stress conditions to avoid include use of pre-emergence herbicides resulting in stunted root growth of weeds, frost, waterlogging and extended cold conditions. Do not spray if any stress conditions are evident just prior to application.

### Mixing

Add the required amount of ENCODE 500 WG (see table) directly to the spray tank which should be 50% full with clean water. After the product is fully dispersed complete filling the tank. The agitation system should be running during mixing and spraying. If agitation ceases and settling occurs, resuspend contents thoroughly before spraying. Ensure that all in-line strainer and nozzle screens in the sprayer are 100 mesh or coarser.

Add any other product next.

An oil adjuvant is essential and should be added last to the spray tank.

The recommended adjuvant for ground application is 1 L/100 L of water. For aerial application, use a rate of 1 L/ha. The oil adjuvant must be added to at least 10 times its volume of water especially where a suction (filling) probe is used.

The area covered per measure pack will depend upon the application rate/ha according to the following table:

ENCODE 500 WG Herbicide Rate/ha	Hectares covered by					
	1 kg	2 kg	3 kg	4 kg	5 kg	10 kg
40 g	25	50	75	100	125	250
60 g	16.7	33.3	50	66.6	83.3	166.7
75 g	13.4	26.6	40	53.4	66.6	133.4
90 g	11.2	22.2	33.4	44.4	55.6	111.2

### Application

Time of application: ENCODE 500 WG is rainfast within 30 minutes. Do not apply ENCODE 500 WG if rain is expected within 30 minutes. To obtain the maximum benefits of this product, weeds should be sprayed when young and actively growing. Use the lower rates for grasses with up to 4 leaves. Use the higher rates for weeds with up to 3 tillers.

Unless otherwise specified in the Critical Comments application may be made at any stage of crop growth but allowing sufficient time for the prescribed withholding period.

**Method of application:** Good spray coverage is essential for maximum results. Spray equipment must be checked and calibrated accurately prior to application.

Ground application: Check height of boom above the target weeds to ensure the spray is evenly distributed and a double overlap pattern is obtained. An even distribution of droplets with a MEDIUM to COARSE spray droplet size category is recommended to maximise efficacy and minimise the likelihood of spray drift. Water volumes per hectare will depend on nozzle selection and ground speed but should be in the range of 50 -100 L/ha. 110° flat fan nozzles are preferred for use with this product. Use higher volumes of spray to achieve better coverage of dense, vigorous weed infestations. A minimum water volume of 80 L/ha is recommended where a COARSE spray quality is being used.

Aerial application: The product may be applied through boom or Micronair units in 20-30 L of water per hectare. The use of the higher volume is preferred due to more reliable results. Spray quality should be MEDIUM to COARSE and swath width should not be wider than recommended for type of plane and application unit. Weed control following aerial application may not be as good as from ground application.

### Sprayer clean-up or decontamination

Before spraying sensitive crops (which include canola, chickpeas, faba beans, field peas, lupins, lucerne, clover etc) thoroughly remove all traces of SU herbicides such as metsulfuron methyl, chlorsulfuron or triasulfuron or carfentrazone-ethyl from mixing and spray equipment immediately after use as recommended on the label for that herbicide.

### CROP SAFETY

The progression of Canola plants beyond leaf development (Stage 1<sup>#</sup>) to Stem extension (Stage 3<sup>#</sup>) or side shoot development (Stage 2<sup>#</sup>) varies depending on the environmental conditions. Under dry, hostile conditions, Stage 1 can finish as early as the 4 leaf stage. To determine if Stage 3 has commenced, dissect young plants and expose the young growth point to determine if floral initiation or the formation of side shoots has commenced.

# Refers to BBCH growth guides from - Lancashire et al (1991). "A uniform decimal code for growth stages of crops and weeds". Ann. Appl. Biol. 119 (3): 561–601. (Note – Stage 2 is not applicable to describe the growth of many of the spring types grown in Australia)

### Compatibility

Avoid the use of water containing high levels of bicarbonates. Levels greater than 50 ppm have been demonstrated to reduce the efficacy of 'Dim' herbicides such as ENCODE 500 WG. Where water containing bicarbonates is being used; the addition of Nufarm Liase @ 2.0 % v/v may assist to ameliorate this issue.

The following recommendations are based on results from field and laboratory tests with ENCODE 500 WG plus 1% oil spray adjuvant. Compatibility is defined as acceptable physical mixing, nil or generally transient crop effect and grass control within 10% of that from ENCODE 500 WG alone. Performance of any tank mix will be better if the maximum rate of ENCODE 500 WG is used and the weed growth stages are according to the label. Always refer to the label of the partner product for rates and any specific guidelines and restraints for the crop or situation.

## Compatible Herbicides

Canola:	Farmozine®, Simanex®, Victory® 600, Firepower® 600, Platinum® Xtra 360 & other 240 g/L clethodim products (maximum rate of 375 mL/ha), Shogun®, Leopard®
Pasture, clover based (not brome grass):	Flumetsulam, Bronco® 200, MCPA LVE EC (max rate 0.5 L/ha; some clover vigour reduction possible), Legacy® MA, Colt®, Firepower® 900, Victory® 600, Simanex®, Shogun®, Leopard®

## Compatible Insecticides

Pulses, canola, pasture:	Alpha-Scud®, Imidan®, Matador with Zeon® (lambda-cyhalothrin), Aphidex®, Dimethoate 400.
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## Compatible Fungicides

Pulses:	Mancozeb, Spiral®
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## Compatible Trace Elements

Pulses, canola, pasture:	EDTA chelates of Cu, Mn, Zn (such as Agrichem Supa range); sulphates of Cu, Mn, Zn (good quality, such as Agrichem Balance range)
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ENCODE 500 WG is **NOT COMPATIBLE** with Strike-Out® 500 WP (reduced grass weed control); Bonanza® Elite or Eclipse\* (increased crop effect).

Do not tank mix ENCODE 500 WG plus oil spray adjuvant with more than one of the above products before doing a jar test beforehand. However, physical compatibility does not guarantee biological compatibility. For information on compatibility of products not listed, please refer to Adama Australia.

\* Registered product name.

## HERBICIDE RESISTANCE WARNING

ENCODE 500 WG is a member of the Cyclohexanedione (DIM) group of herbicides.

GROUP **1** HERBICIDE

The product has the inhibitors of acetyl coA carboxylase mode of action. For weed resistance management, the product is a Group 1 herbicide. Some naturally occurring weed biotypes resistant to the product and other Group 1 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 this product or other Group 1 herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Adama Australia accepts no liability for any losses that may result from the failure of this product to control resistant weeds.

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

DO NOT apply under weather conditions or from spraying equipment which may cause spray to drift onto nearby susceptible plants/crops, cropping lands or pastures.  
DO NOT plant cereal crops for a period of 4 weeks after application of ENCODE 500 WG.

## PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

Highly toxic to algae and aquatic plants. DO NOT contaminate dams, rivers or streams with the chemical or 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. Single rinse or shake remainder into spray tank. Do not dispose of undiluted chemicals on site. 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

Harmful if swallowed. Will irritate the eyes and skin. Avoid contact with eyes and skin. Avoid inhaling dust. When preparing product for use wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and goggles. If product on skin, immediately wash area with soap and water. If product 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 13 11 26.

## SAFETY DATA SHEET

Additional information is listed in the safety data sheet (SDS). A safety data sheet for ENCODE® 500 WG is available at adama.com or call Customer Service on 1800 423 262.

**CONDITIONS OF SALE:** The use of ENCODE® 500 WG HERBICIDE being beyond the control of the manufacturer, no warranty expressed or implied is given by Adama Australia, 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 accepts no responsibility for any consequence whatsoever resulting from the use of this product.

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\* Other registered trademarks

## NOT A DANGEROUS GOOD ACCORDING TO THE AUSTRALIAN DANGEROUS GOODS (ADG)

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