

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

Smart Butroxydim 250 WG

HERBICIDE

ACTIVE CONSTITUENT: 250 g/kg BUTROXYDIM

GROUP A HERBICIDE

Butroxydim is for the control of certain grasses in a range of broadacre crops as per the Directions for Use.



Contents: 5Kg

IMPORTANT:
READ THE ATTACHED LEAFLET BEFORE
USING THIS PRODUCT

Crop Smart
better crop protection



APVMA: 90002/126988

Contents: 1kg to 50kg

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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 Smart Butroxydim 250 WG Herbicide transport in the weed can be drastically reduced, resulting in an incomplete kill or suppression only of the weeds.

DO NOT apply to annual grass weeds after mid-tillering.

DO NOT apply at flowering stage of weeds.

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

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 Zadoks 12-23	All States	80 to 180 g *	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 where denser populations are present or under less than ideal growing conditions or where some weed resistance to Group A herbicides is suspected. Because of the extreme variation of cross resistance present in annual ryegrass populations there is no guarantee that SMART BUTROXYDIM 250 WG will always provide consistently high levels of control but trials have shown that higher rates may be expected to perform better than lower rates. For all crops apply in not less than 50 L water/ha.
	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.)			80 to 180 g * # plus an effective rate of a fop herbicide containing fluazifop, haloxyfop, propaquizafop, or quizalofop	# Refer to the label of the partner herbicide for rates and specific directions for use. Smart Butroxydim 250 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.

<p>Canola (conventional, TT, "IMI" varieties)</p>	<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 (<i>x Triticosecale</i>) Wild oats (<i>Avena</i> spp.)</p>	<p>2 leaf to early tillering Zadoks 12-23</p>	<p>All States</p>	<p>80 g*</p> <p># plus an effective rate of a fop herbicide containing fluazifop, haloxyfop, propaquizafop, quizalofop</p>	<p>Warning Canola can be sensitive to Smart Butoxydim 250 WG. DO NOT use more than 80 g/ha on canola. To minimise leaf symptoms 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). Under certain conditions, all varieties may exhibit leaf symptoms and/or reduced early competitiveness. If this occurs canola yield is usually unaffected but in some instances may be reduced. Avoid spraying stressed crops as crops growing under stress will show slower recovery. Avoid spraying practices that lead to over application such as double overlap, and spraying out corners. # Refer to section above for control of additional grasses.</p>
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Lucerne Mung beans Navy beans Peanuts Soybeans	Echinochloa species - Awnless barnyard grass (<i>E. colona</i>) - Barnyard grass (<i>E. crus-galli</i>) - Japanese millet (<i>E. utilis</i>) Digitaria species - Crab grass (<i>D. sanguinalis</i>) - Summer grass (<i>D. ciliaris</i>)	2 leaf to early tillering g Zadok s 12- 23	Qld, NSW, Vic & NT only	120 g or 180 g *	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.
Cotton	- Feather top Rhodes grass (<i>C. virgata</i>) - Windmill grass (<i>C. truncate</i>)		Qld & NSW only		
Sunflowers	Setaria species - Dwarf setaria (<i>S. italica</i>) - Whorled pigeon grass (<i>S. verticillate</i>) Brachiaria species - Green summer grass (<i>B. subquadriflora</i>) - Velvet grass (<i>B. windersii</i>) Volunteer Crops - Maize (<i>Zea mays</i>) - Sorghum (<i>Sorghum bicolor</i>) Crowsfoot grass (<i>Eleusine indica</i>) Dinebra (<i>Dinebra reflexa</i>) Early spring grass (<i>Eriochloa pseudoacrotricha</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		120g *	
	Volunteer cereals - Wheat (<i>Triticum aestivum</i>) - Barley (<i>Hordeum vulgare</i>)	2 leaf to early tillering g Zadok s 12-22, prior to stem elongat		180 g *	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		180g *	Use for suppression only of pre-tillered grasses. Do not apply to tillered weeds.

* Always apply with oil spray adjuvant at 1L/100L of spray solution. For aerial application apply oil spray adjuvant at a rate of 1 L/ha.

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 Smart Butroxydim 250 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.

Oil adjuvant at 1L/100L of water is the only recommended adjuvant for ground application. For aerial application use Oil adjuvant at a rate of 1 L/ha.

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:

SMART BUTROXYDIM 250 WG	Hectares					
	1 kg	2 kg	3 kg	4 kg	5 kg	10 kg
80 g	12.5	25	37.5	50	62.5	125
100 g	1	20	30	40	50	100
150 g	6	13.3	20.0	26.7	33.3	66.7
180 g	5	11.1	16.7	22.2	27.8	55.6

Application

Time of application: Smart Butroxydim 250 WG is rainfast within 30 minutes. Do not apply Smart Butroxydim 250 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.

Boom spraying: 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 fine spray quality (measured with water to ASAE S572 standard) is desirable for maximum efficacy. The inclusion of Supercharge coarsens the spray quality when applied through a TeeJet XR11002 nozzle such that a Medium spray quality results which will help reduce the likelihood of drift.

Broadacre use: Water volumes per hectare will depend on nozzle selection and ground speed but should be in the range of 50-100L/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 and/or if the nozzles used produce coarser than a Fine spray quality (measured with water). The use of air induction nozzles is not recommended until further trial data is available.

Aerial application: The product may be applied through boom or Micronair units in 20-30L of water per hectare. The use of the higher volume is preferred due to more reliable results. Spray quality should be Fine (measured with water to ASAE S572 standard) 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 cleanup 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 Smart Metsulfuron 600 WG, Smart Chlorsulfuron 750 WG or Smart Triasulfuron 750 or Smart Carfentazone 240 EC from mixing and spray equipment immediately after use as recommended on the label for that herbicide.

Compatibility

The following recommendations are based on results from field and laboratory tests with Smart Butroxydim 250 WG plus 1% Supercharge. Compatibility is defined as acceptable physical mixing, nil or generally transient crop effect and grass control within 10% of that from Smart Butroxydim 250 WG alone. Performance of any tank mix will be better if the maximum rate of Smart Butroxydim 250 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.

Smart Butroxydim 250 WG is compatible with any one of the following herbicides for the crops specified:

Canola – Smart Atrazine 900WG, Smart Simazine 900 WG, Smart Clopyralid 300, Smart Haloxyfop 520 EC, fluazifop, Smart Quizalofop, propaquizafop.

Pasture, clover based (not brome grass) - Smart Flumetsulam 800 WG, bromoxynil, Smart LVE MCPA 570, (max rate 0.5 L/ha; some clover vigour reduction possible), Bromoxynil/Diflufenican, Smart Haloxyfop 520 EC, Smart Simazine 900 WG, fluazifop, Smart Quizalofop, propaquizafop.

Smart Butroxydim 250 WG Herbicide is compatible with any one of the following insecticides for the crops specified:

Pulses, canola, pasture – Smart Ace 100, phosmet, lambda-cyhalothrin, pirimicarb, dimethoate, methidathion.

Smart Butroxydim 250 WG Herbicide is compatible with any one of the following fungicides for the

crops specified: **Pulses** – procymidone.

Smart Butroxydim 250 WG Herbicide is compatible with any one of the following trace elements for the crops specified:

Canola, Pulses, Pasture - EDTA chelates of Cu, Mn, Zn; sulphates of Cu, Mn, Zn.

Smart Butroxydim 250 WG Herbicide is not compatible with Smart Chlorpyrifos 500 (reduced grass weed control); Smart Diflufenican 500SC, or metosulam (increased crop effect).

DO NOT tank mix Smart Butroxydim 250 WG Herbicide 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. Do not tank mix with other products or trace elements without reference to a Crop Smart representative.

Resistant Weeds Warning

GROUP	A	HERBICIDE
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Smart Butroxydim 250 WG Herbicide is a member of the Cyclohexanedione (DIM) group of herbicides. The product has the inhibitors of acetyl coA carboxylase mode of action. For weed resistance management, the product is a Group A herbicide.

Some naturally occurring weed biotypes resistant to the product and other Group A 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 A herbicides.

Since the occurrence of resistant weeds is difficult to detect prior to use, Crop Smart Pty Ltd 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 Smart Butroxydim 250 WG Herbicide.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

Highly toxic to algae and aquatic plants. DO NOT contaminate streams, rivers or watercourses 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.

Bottles

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.

Bags

Shake and empty contents into spray tank. Do not dispose of undiluted chemicals on site. 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

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 131 126; New Zealand 0800 764 766.

SAFETY DATA SHEET

Additional information is listed in the Safety Data Sheet (SDS), which is available from the supplier.

NOTICE TO BUYER

Crop Smart Pty Ltd shall not be liable for any loss, injury, damage or death whether consequential or otherwise whatsoever or howsoever arising whether through negligence, use under abnormal conditions or otherwise in connection with the sale, supply, use or application of this product. The supply of this product is on the express condition that the purchaser does not rely on Smart's skill or judgment in purchasing or using the product and every person dealing with this product does so at their own risk.

Batch No.

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