

Smart

Metribuzin 750 WG

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

HERBICIDE

ACTIVE CONSTITUENT: 750g/kg METRIBUZIN

Group **C** Herbicide

For selective weed control in cereals, pastures and other crops, including vegetables, as indicated in the Directions for Use.



IMPORTANT:
READ THE ATTACHED LEAFLET BEFORE USE.

Crop Smart
better crop protection

APVMA APPROVAL NO: 60935/0506

CONTENTS: 5 & 10kg

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DIRECTION FOR USE

RESTRAINTS:

DO NOT apply to crops that are stressed by any cause (such as severe weather conditions, waterlogging, drought, excessive soil acidity or alkalinity, poor nutrient status, disease, nematode or insect damage) as crop injury may result.

CROP/SITUATION	WEEDS CONTROLLED	STATE	RATE/Ha	CRITICAL COMMENTS
Barley	Capeweed, Catsear, Charlock, Chickweed, Common Cotula, Corn Gromwell (Sheepweed, White Ironweed), Corn Spurry, Creeping Speedwell, Crown Beard (Dogweed), Deadnettle (Henbit <i>Lamium spp.</i>) Dock seedlings, Fat Hen, Field Madder, Fumitory, Hare's Ear (Treacle Mustard), Heliotrope, Hogweed (Wireweed), Horehound, Indian Hedge Mustard, Lesser Swinecress, Mouse-ear Chickweed, Mountain Sorrel, (Purple Calandrinia), Rough Poppy, Scarlet Pimpernel, Scrub Nettle (Stinging Nettle), Shepherds Purse, Sorrel seedlings, Sowthistle, Spiny Emex (Doublegee, Threecornered Jack(s)), Storksbill, Toad Rush, Wild Radish, Wild Turnip, Winter Grass, Yellow Burrweed	Vic & Tas only	180g (Light sandy soils, ie, sandy loams to loamy sands) 280g (Medium soils, loams, silt plus clay 40-60%) 380g (Heavy soils, clay loams, silt plus clay over 60%)	Apply to moist soils while weeds are young and actively growing and barley plants are at the 5-leaf stage. DO NOT use on Barley grown on alkaline light sandy soils with pH over 7. DO NOT use on Barley grown on light sandy soils (Tas).
Barley	Buxbaum's Speedwell, Powell's Amaranth, Stagger weed, Sun Spurge, Great Brome	Tas only		
Barley All varieties excluding Morrell	Capeweed, Common Cotula, Doublegee, Fumitory, Indian Hedge Mustard, Toadrush, Wild Radish, Wild Turnip, Wireweed. Brome grass (<i>Bromus diandrus</i> & <i>B.rigidus</i>) Annual Ryegrass, Barley grass	WA only Sandy-sandy loam soils	135-150g plus Trifluralin 480 at 1L/ha and incorporated by sowing (IBS)	DO NOT apply to Morell barley. Use the lower rate in lighter soils, and the higher rate in heavier soils. Apply to moist soil for best efficacy Seed below herbicide band at 5cm. Reduced control may occur under high weed burdens (>100/m ²). Ensure Smart Metribuzin 750 WG Herbicide is fully dispersed in the boom spray tank prior to the addition of trifluralin 480. Refer to the application section of this and the trifluralin label for complete instructions on product use.

CROP/ SITUATION	WEEDS CONTROLLED	STATE	RATE/Ha	CRITICAL COMMENTS
Chick peas, Faba Beans, Lentils, Vetch	Refer to the barley section	SA, VIC & WA only	180 g (Light sandy soils, i.e, sandy loams to loamy sands) 280g (Medium soils, loams, silt plus clay 40- 60%) 380g (Heavy soils, clay loams, silt plus clay over 60%)	Crop: ONLY apply post-sowing, pre-emergence at least 5 cm deep. DO NOT apply post-emergence as crop injury will occur. Weeds: Weeds should be from pre-emergence to 3 leaf stage except Wireweed (Hogweed) which should not be beyond the cotyledon stage. Best results for grass and Wireweed control are obtained when rain or irrigation follows within a few days of spraying.
Lupins	Capeweed, Doublegee, Wild Radish	WA only	100-150g plus 100mL Brodal®	For use on varieties Gunurru, Meritt, Myallie and Kayla only. DO NOT use on Danja, Kiev mutant or Albus lupins. Suppression of larger Doublegee only. Wild Radish weed size up to 250mm only. Apply to the actively growing lupins from the 3-4 leaf stage onwards. Use higher rates for heavy weed burden and larger weed size. Apply before weeds are covered by crop canopy. DO NOT apply wetting agents or spray oils with this mixture. Some transient leaf burn may occur after application, but this will not effect yield. Best results are obtained if good soil moisture exists at, and is received soon after application. Results may be less effective south of the Great Eastern Highway. Refer to critical comments section on the Brodal® label.
Peas (Field and Green) (Not Snow Peas)	Refer to Barley section plus: Buchan Weed, Ball Mustard, Fog Grass (SA only), Dwarf Nettle (Tas only) Suppression only- Subclover and Docks (Broadleaved Dock – Tas only), Wild Oats	NSW, Vic, SA & Tas only	180g (Light sandy soils, ie, sandy loams to loamy sands) 280g (Medium soils, loams, silt plus clay 40-60%) 380g (Heavy soils, clay loams, silt plus clay over 60%) 470g (Kooweerup swamp and volcanic soils)	Crop: Sow crop 3-4cm deep. Apply after rain when crop is pre-emergence to 3-node stage For post-sowing pre-emergence application allow soil to settle for 2-3 days after sowing before spraying. For post-emergence apply to moist soil within 6 weeks of sowing while weeds are young and actively growing, DO NOT spray crops affected with collar or stem rot. Weeds: Weeds should be from pre-emergence to 3-leaf stage except Wireweed (Hogweed) which should not be beyond the cotyledon stage. Best results for grass and Wireweed control are obtained when rain or irrigation follows within a few days of spraying.

CROP/ SITUATION	WEEDS CONTROLLED	STATE	RATE/Ha	CRITICAL COMMENTS
Peas (Field and Green) (Not Snow Peas) continued	Refer to Barley section plus: Buchan Weed, Ball Mustard, Fog Grass (SA only), Dwarf Nettle (Tas only)	QLD only	470g	Apply to medium soils
			700g	Apply to soils high in clay or organic matter content when grass weeds are a problem.
Green Peas (Post emergence) (NOT Snow Peas)	Suppression only- Subclover and Docks (Broadleaved Dock – Tas only), Wild Oats	WA only	370-470g	Refer to Critical Comments for Peas (Field and Green)
Potatoes		ACT, NSW, VIC, SA, Tas & WA only	470g	Apply after rain or irrigation when crop has no more than 6 leaves or is no more than 10 cm high (many plants may be smaller). CROPS HILLED OR MOLDED UP -Hill or mold up as the crop emerges. Apply 1-4 weeks later as soon as weed seedlings have emerged. If surface crusting is not a problem no further cultivation should be necessary. CROPS NOT HILLED AT OR SOON AFTER PLANTING -Spray when weeds seedling have emerged. No cultivation should be necessary until crop is ready for final hilling. Additional cultivation may be necessary when surface crusting is a problem.
			700g	Where summer grasses are a problem.
		Vic, Bellarine Peninsula only	280-370g	Apply to winter crops on light soils only.
		Qld only (Winter crop)	470g	Apply at first emergence of potatoes to control broadleaf weeds.
		South Qld only (Summer crop)	470g - 950 g	Where summer grasses such as <i>Echinochloa crus galli</i> , <i>Eleusine</i> , <i>Digitaria</i> and <i>Panicum spp.</i> are a problem.
		Atherton Tablelands (QLD only)	950g	Apply to summer crops at first emergence of potatoes to control broadleaved weeds and more troublesome grasses such as <i>Eleusine</i> , <i>Digitaria</i> and <i>Panicum spp.</i>
Irrigated Soybeans	Apple of Peru, Cobbler's Pegs, Pigweed, Noogoora Burr, Common Thornapple, Summer Grass, Caltrop	ACT, NSW, NT only	500g	Apply pre-plant incorporated. Where grass weeds other than summer grass are a problem apply in combination with trifluralin 480. (Refer to label for directions for use and incorporation techniques). Use only on soils classified as silty clay-heavy clay.

CROP/ SITUATION	WEEDS CONTROLLED	STATE	RATE/Ha	CRITICAL COMMENTS
Irrigated Soybeans (Variety Davis only)	Refer to weeds listed for soybeans plus Anoda weed, Awnless Barnyard grass. Suppression only of Bellvine	QLD, NT only	750g	Apply pre-plant incorporated. Where grass weeds other than summer grass are a problem apply in combination with trifluralin 480. (Refer to label for directions for use and incorporation techniques). Use only on soils classified as silty clay-heavy clay.
Tomatoes Inter-row spaces of furrow irrigated tomatoes	Refer to Peas section plus: Barnyard grass, Summer grass, Crowsfoot grass, Blackberry Nightshade, Pigweed, Black Pigweed, Bull's Head, Green Summer Grass		950g or 9.5g/100 m of row	Apply in a 1 metre band centered on the interrow either during or shortly after the formation of the final farrow. Apply to soil moist at the surface. DO NOT exceed spraying pressures of 200 kPa as excessive drift will occur.
Wheat (Blade only)	Capeweed, Common Cotula, Doublegee, Fumitory, Indian Hedge Mustard, Toad Rush, Wild Turnip, Wild Radish, Wireweed. Brome Grass (<i>Bromus diandrus</i> and <i>B. rigidus</i>) Annual Ryegrass, Barley Grass (refer to critical comments)	WA- Great northern region only Sandy-sandy loam soils	200g and incorporated by sowing (IBS) 200g/ha plus a trifluralin 480 at 1L/ha and incorporated by sowing (IBS)	Smart Metribuzin 750 WG Herbicide has increased crop safety and gives more reliable weed control when incorporated by sowing and trailing harrows. Reduced grass control may occur under high weed burdens (>100/m ²). To achieve good control of Annual Ryegrass and Barley grass add trifluralin 480 at 1L/ha. Ensure Smart Metribuzin 750 WG Herbicide is fully dispersed in the boom spray tank prior to the addition of trifluralin 480. Refer to the application section of this and the trifluralin label for complete instructions on product use.
Wheat and Barley	Toad Rush	Vic, ACT, NSW, SA only	100g	Toad rush should be sprayed at the 2-4 leaf stage for optimum control.
Oats		Vic only		Spray when soil moisture is plentiful and soil is moist to the surface. Take advantage of dew on the soil surface.

White Lupins	Buchan Weed, Capeweed, Charlock, Chickweed, Deadnettle (<i>Lamium spp.</i>), Fat Hen, Fumitory (Common and Wall Fumitory- Tas), Wireweed (Hogweed), Lesser Swincross, Purple Calandrinia, Scarlet Pimpernel, Spiny Emex, Corn Spurry (Spurry-Tas), Stinging Nettle (Dwarf Nettle-Tas), Toad Rush, Winter grass, Heliotrope, Wild Oats, Wild Turnip, Wild Radish. Suppression only: Subclover and docks (Broadleaved dock-Tas)	Tas only	400g	Spring application – Apply after sowing but before crop emerges.
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**NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THIS LABEL
UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION.**

WITHHOLDING PERIOD

TOMATOES

DO NOT APPLY LATER THAN 21 DAYS BEFORE HARVEST.

BARLEY

DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 14 DAYS AFTER APPLICATION.

OTHER CROPS

NOT REQUIRED WHEN USED AS DIRECTED.

GENERAL INSTRUCTIONS:

Smart Metribuzin 750 WG Herbicide is non-corrosive to equipment, non-flammable and non-volatile. The degree of weed control and duration of effect will vary with the amount of herbicide applied, soil texture, rainfall and other conditions.

RESISTANT WEEDS WARNING

GROUP	C	HERBICIDE
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Smart Metribuzin 750 WG Herbicide is a member of the Triazines group of herbicides. Smart Metribuzin 750 WG Herbicide has the inhibitors of photosynthesis at photosystem II mode of action. For weed resistance management Smart Metribuzin 750 WG Herbicide is a Group C herbicide.

Some naturally- occurring weed biotypes resistant to Smart Metribuzin 750 WG Herbicide and other Group C Herbicides may exist through normal genetic variability in any weed population. The resistant individuals can eventually dominate the weed population if these herbicides used repeatedly. These resistant weeds will not be controlled by Smart Metribuzin 750 WG Herbicide or other Group C herbicides.

Annual Ryegrass biotypes resistant to diclofop-methyl and other ryegrass specific herbicides may be resistant to Smart Metribuzin 750 WG Herbicide. Crop Smart Pty Ltd recommends resistance testing of the population to ensure susceptibility prior to use.

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 Smart Metribuzin 750 WG Herbicide to control resistant weeds. Large numbers of healthy surviving weeds can be an indication that resistance is developing. Efforts should be made to prevent seed set of the survivors.

DO NOT make more than one application of a Group C Herbicide to a crop in the same season, either pre-sowing incorporated by sowing or post crop and weed emergence. If the user suspects that Group C Herbicide resistant weeds are present, Smart Metribuzin 750 WG Herbicide or other Group C Herbicides should not be used.

Strategies to minimise the risk of herbicide resistance are available. Consult your farm chemical supplier, consultant, local Department of Agriculture or Primary Industries.

Crop Safety

DO NOT apply to crops that are stressed by any cause (such as severe weather conditions, waterlogging, drought, excessive soil acidity or alkalinity, poor nutrient status, disease, nematode or insect damage) as crop injury may result.

- Barley: DO NOT apply to crops grown on sandy soils or soils low in organic matter.
- Peas:
(field &
green) DO NOT apply to Laura, Pennant or White Brunswick varieties as phytotoxicity may occur.
DO NOT apply any later than the one node stage to Alma and Dinkum peas.
DO NOT spray pea crops in soil s or areas where collar or stem rot is likely to occur.
- Potatoes DO NOT apply to crops grown on sandy soils as injury to the crops may result, appearing as chlorosis or minor necrosis.
DO NOT apply to Kurell potatoes as phytotoxicity may occur.
DO NOT apply to Alantic and Ponitac varieties – WA only.
DO NOT use on dry-grown, non-irrigated crops.

- Soybeans: DO NOT use on varieties Cannapolis, Hill and Semstar as crop injury may occur.
DO NOT use on soils with a calcareous surface layer as crop injury may occur.
DO NOT apply over atrazine residues as crop injury may result.
DO NOT apply in combination with soil applied organophosphate insecticides as crop injury may result.
DO NOT apply to soils with less than 0.5% organic matter as crop injury may result.
DO NOT apply to dryland soybeans.
DO NOT apply to soils of pH greater than 8 that are prone to waterlogging as crop injury may occur.
- Lupins DO NOT apply to varieties Danja, Kiev Mutant or Albus Lupins.
DO NOT apply to Lupin crops that have received 2.5 litres or more of Simazine pre-seeding, or lupin crops that are showing symptoms of Simazine or Atrazine damage.

MIXING AND APPLICATION COMPATIBILITY

Smart Metribuzin 750 WG Herbicide is compatible with the herbicides chloresulfuron, metsulfuron, glyphosate, pendimethalin, propargite, Brodal® Selective Herbicide and trifluralin 480.

MIXING:

General:

Smart Metribuzin 750 WG Herbicide is to be mixed with water and applied as a spray. Before spraying calibrate equipment to determine the quantity of water necessary to uniformly cover the measured area to be treated. Partially fill the tank with water. Measure the amount of herbicide required for the area to be sprayed, adding this amount of Smart Metribuzin 750 WG Herbicide to the spray tank with the agitation system engaged. Top up to the correct volume with water.

THE MATERIAL MUST BE KEPT IN SUSPENSION AT ALL TIMES BY CONTINUOUS AGITATION.

In tank mixes Smart Metribuzin 750 WG Herbicide must be in suspension before adding the companion herbicide or liquid fertiliser.

Pre-planting Incorporation Treatment:

Smart Metribuzin 750 WG Herbicide plus trifluralin 480:

Add Smart Metribuzin 750 WG Herbicide to water in spray tank with agitator running as above. Maintain agitation then add trifluralin 480 at the recommended rates (Refer to trifluralin 480 label).

APPLICATION

General:

Best results are obtained if treatment is made to moist soil and moisture is supplied by rainfall or sprinkler irrigation (6-12mm) within 2 weeks after application. If heavy rains occur soon after application, injury to the crop may result.

Aerial Application- (Qld only)

Peas-apply in a minimum of 20 litres water per hectare.

Potatoes- apply in a minimum of 50 litres water per hectare. Avoid overlapping of spray swath, Avoid spraying in still conditions and in wind likely to cause drift.

Pre-emergence and Post-emergence (To crop)

Smart Metribuzin 750 WG Herbicide should not be applied when weeds are in the young seedling stage (no more than 3 true leaves). Under dry conditions there is no root uptake of Smart Metribuzin 750 WG Herbicide and results against grass weeds and Wireweed (Hogweed) will be poor. Except for small areas, use fixed boom power sprayers set at 200-300kPa (for tomatoes do not exceed 200kPa) and fitted with fan nozzles. Apply a minimum of 80L-100L prepared spray/ha. Openings in screens should be equal to or larger than 50 mesh. Agitate by mechanical or hydraulic means in spray tank. When spraying avoid overlapping. Shut off spray booms whilst starting turning, slowing or stopping otherwise crop injury may result.

Pre-plant incorporated - Soybeans only

Smart Metribuzin 750 WG Herbicide alone or in combination with trifluralin 480.

Spray anytime from 4 week before sowing until just before sowing. Use fixed boom power sprayers set at 200-300 kPa and fixed with fan nozzles. Use 120-500 litres water per hectare. Openings in screens should be equal to or larger than 80 mesh. Agitate by mechanical or hydraulic means in the spray tank. When spraying avoid overlapping. Shut off spray booms while starting, turning, slowing and stopping otherwise crop injury may result.

Smart Metribuzin 750 WG Herbicide alone

If possible spray and incorporate within the same operation. If not possible incorporate spray within 24 hours of application using Go-devil or Lilliston cultivators set to work 5 cm deep.

Smart Metribuzin 750 WG Herbicide plus trifluralin 480

After spraying mix soil within 4 hours. Spray and incorporate during the one operation if possible. (Refer to trifluralin 480 label for specific incorporation details).

Sprayer Cleanup

Thoroughly clean all traces of Smart Metribuzin 750 WG Herbicide and /or trifluralin 480 from application equipment immediately after use. Flush tank, pump, hoses and boom with several changes of water after removing nozzle tips and screens (clean these parts separately).

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

DO NOT apply (except as recommended for crop use) or drain or flush equipment on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots, as injury or loss may occur.

DO NOT plant treated area to sensitive crops such as brassicas, sunflowers, beetroot, cucurbits, lettuce or onions for at least 6 months following application of Smart Metribuzin 750 WG Herbicide as crop injury may result. Thoroughly work the soil prior to planting of these crops.

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

Tomatoes

DO NOT plant follow-on crops of cucurbits or capsicums when applying Smart Metribuzin 750 WG Herbicide to autumn plantings.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

DO NOT contaminate streams, rivers or waterways by cleaning of equipment, disposal of wastes or used containers.

STORAGE AND DISPOSAL:

Store in the closed, original container in a dry, well ventilated area, as cool as possible.

Do not store for prolonged periods in direct sun light. Keep from contact with fertilisers, insecticides, fungicides and seeds.

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 500mm 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.

SAFETY DIRECTIONS

Harmful if swallowed. May irritate the eyes and skin. Avoid contact with eyes and skin. DO NOT inhale dust or spray mist. Wash hands after use.

FIRST AID

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

MATERIAL SAFETY DATA SHEET

For further information, refer to the Material Safety Data Sheet (MSDS) which is available from the supplier.

CONDITION OF SALE

Crop Smart Australia Limited ("Crop Smart") shall not be liable for any loss, injury, damage or death whether consequential or otherwise whatsoever, or howsoever arising through negligence or otherwise in connection with the sale, supply, use or application of this product. The supply of this product is on the express conditions that the purchaser does not rely on Crop Smart's skill or judgement in purchasing or using the same and every person dealing with this product does so at his own risk absolutely. No representative of Crop Smart has any authority to alter these conditions.

