

CAUTION

KEEP OUT OF REACH OF CHILDREN

READ SAFETY DIRECTIONS BEFORE OPENING OR USING



syngenta®

ACTIVE CONSTITUENTS: 800 g/L PROSULFOCARB
120 g/L S-METOLACHLOR

GROUP	J	K	HERBICIDE
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For control of Annual Ryegrass (*Lolium rigidum*) and other grass and broadleaf weeds in Barley and Wheat

Syngenta Crop Protection Pty Limited
Level 1, 2-4 Lyonpark Road, Macquarie Park NSW 2113

In a transport emergency dial 000, Police or Fire Brigade
For specialist advice in an emergency only, call 1800 033 111 (24 hours)

APVMA Approval No: 61234/52854

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DIRECTIONS FOR USE

Restrictions

DO NOT apply to waterlogged soils

DO NOT apply if heavy rains or storms that are likely to cause runoff are forecast within 2 days of application

Crop	Weeds	Rate/ha	Critical Comments
Barley, Wheat	Annual Ryegrass (<i>Lolium rigidum</i>) including control of Group D resistant populations, Silver Grass (<i>Vulpia</i> spp.), Stone Crop (<i>Crassula</i> spp.) Suppression of Barley Grass (<i>Hordeum</i> spp.)	2.5 L	Apply pre-emergent and incorporate mechanically by sowing operation (IBS). Application should be made to a moist seedbed up to 7 days prior to sowing and sufficient rain to thoroughly wet the top 3 to 4 cm of soil should occur within 10 days after spraying. Avoid soil throw into adjacent seeding rows or sites where furrow walls may collapse. Refer to crop tolerance, incorporation and tillage requirements under General Instructions. Barley Grass management Where a high weed density is expected, delay application and sowing until after the emergence of the first Barley Grass germination following planting rains. Control with cultivation or the application of a registered non-selective herbicide such as Touchdown HiTech [®] Herbicide. Where sowing following a pasture phase, it is recommended that spray topping with Gramoxone [®] 250 Herbicide or glyphosate is carried out in the previous year to reduce Barley Grass seed set.
	Annual Ryegrass (<i>Lolium rigidum</i>), Paradoxa Grass (Canary Grass), <i>Phalaris</i> spp, Red and White Fumitory, Sand Fescue, Silver Grass (<i>Vulpia</i> spp.), Stone Crop (<i>Crassula</i> spp.), soil surface Wild Oats, Wireweed (Hogweed) Suppression of Barley Grass (<i>Hordeum</i> spp.), Brome Grass, Deadnettle, Rough Poppy, Yellow Burr Weed	1.5 to 2.5 L plus 0.8 to 1.5 L of a 480 g/L trifluralin	DO NOT use less than 2.5 L/ha BOXER GOLD where Group D resistance is confirmed or suspected. Use of BOXER GOLD below 2.5 L/ha alone or in a tank mix WILL NOT be effective in the control of Group D resistant Annual Ryegrass nor to delay the onset of herbicide resistance development. Refer to Tank Mixes under General Instructions. Apply pre-emergent and incorporate mechanically by sowing operation (IBS). Application should be made to a moist seedbed up to 24 hours prior to sowing and sufficient rain to thoroughly wet the top 3 to 4 cm of soil should occur within 10 days after spraying. Avoid soil throw into adjacent seeding rows or sites where furrow walls may collapse. Use 1.5 L/ha of a 480 g/L trifluralin in minimum tillage knife/blade point systems only as per trifluralin label. Attention to sowing speed and soil throw is important to ensure crop safety. This is especially critical at higher use rates. Risk of crop injury may increase where greater than 1 L/ha trifluralin 480 g/L is applied with 2.5 L/ha BOXER GOLD. Always refer to use recommendations on trifluralin label regarding soil type restrictions and incorporation timing and rate selection under different tillage systems. This mixture is recommended for control or suppression of additional weeds, on sandy soils where product movement into the seeding zone poses a crop safety risk or where good soil moisture cannot be assured. Refer to crop tolerance, incorporation and tillage requirements under General Instructions.

Crop	Weeds	Rate/ha	Critical Comments
Barley, Wheat <i>continued</i>	Toad Rush (<i>Juncus bufonius</i>)	1.25 to 2.5 L	DO NOT use less than 2.5 L/ha BOXER GOLD where Group D resistant Annual Ryegrass is confirmed or suspected. Use of BOXER GOLD below 2.5 L/ha WILL NOT be effective in the control of Group D resistant Annual Ryegrass nor to delay the onset of herbicide resistance development. Refer to Tank Mixes under General Instructions. Apply pre-emergent and incorporate mechanically by the sowing operation (IBS). Application should be made to a moist seedbed up to 7 days prior to sowing and sufficient rain to thoroughly wet the top 3 to 4 cm of soil should occur within 10 days after spraying. Avoid soil throw into adjacent seeding rows or sites where furrow walls may collapse. Use upper label rate where longer residual control is required or in situations where crop competition is minimal. Refer to crop tolerance, incorporation and tillage requirements under General Instructions.
Wheat	Annual Ryegrass (<i>Lolium rigidum</i>), Silver Grass (<i>Vulpia</i> spp.), Stone Crop (<i>Crassula</i> spp.), Wild Turnip Suppression of Barley Grass, Brome Grass	2.5 L plus 25 g Monza* Herbicide	Apply pre-emergent and incorporate mechanically by sowing operation (IBS). Application should be made to a moist seedbed prior to sowing and sufficient rain to thoroughly wet the top 3 to 4 cm of soil should occur within 10 days after spraying. Avoid soil throw into adjacent seeding rows or sites where furrow walls may collapse. Refer to crop tolerance, incorporation and tillage requirements under General Instructions. Observe crop rotation guidelines detailed on Monza label.

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

WITHHOLDING PERIODS

Barley, Wheat

Harvest: NOT REQUIRED WHEN USED AS DIRECTED

Grazing: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 10 WEEKS AFTER APPLICATION

GENERAL INSTRUCTIONS

BOXER GOLD is a short residual, soil applied, pre-emergent herbicide that is absorbed by the roots and shoots (coleoptile) of germinating seedlings with inhibition of growth in the meristematic region. Foliar uptake is possible but of lower effect. Upstream translocation in the plant occurs but movement in the phloem is very unlikely. Best activity can be expected from applications before or shortly after the germination of target weeds.

The product should be applied to a moist smooth seedbed free of soil clods and emerged weeds. Product efficacy may be reduced by improper incorporation, high levels of crop or trash residues, stones or foreign matter and in areas of extremely high weed seed density such as header rows. For optimal efficacy and crop safety avoid shallow seeding and ensure accurate seed placement that avoids placement of seed in the herbicide band. Avoid water repellent soils, soils subject to water logging or where furrow walls are likely to collapse. Duration and effectiveness of weed control will depend on use rate, soil type and rainfall or irrigation after application. Adequate rainfall should occur within 10 days of application, as this herbicide requires sufficient available soil moisture to ensure soil movement and uptake by emerging weed seeds.

Crop Tolerance

The selectivity of BOXER GOLD in cereals is a combination of positional and physiological selectivity. Positional selectivity must be maintained by sowing at adequate depth below the herbicide band. The physiological selectivity of BOXER GOLD is given by the ability of cereals to metabolise the herbicide to inactive compounds more rapidly than susceptible weed species. Environmental factors such as rainfall events following application and soil type will influence product movement into the seed zone. Crop injury may occur when used in sandy soils with high leaching potential or in all soil types when heavy rainfall is received between sowing and emergence. Crop injury may also result from tank mixes with other herbicides or in the event of crop stresses including frost. Risk of crop damage may be exacerbated where varieties with short coleoptile length are planted in conjunction with the use of some fungicide seed treatments.

Tillage System

IBS with knife or blade points: Working speed should ensure adequate incorporation of product but avoid soil throw into the adjacent seeding row. Use of presswheels will minimise potential for herbicide to be dragged back into seeding rows. Weed control may be reduced in seeding rows as a result of concentration of herbicide in crop inter-rows. A knife or blade point is defined as being <12 mm in width, having no wings, inverted T or blade and is generally on a minimum 200 mm row spacing.

Full disturbance or conventional cultivation, including trailing harrows/prickle chain: Care should be taken to ensure seed placement below the herbicide band as crop damage may result where seed is sown too shallow. Consult trifluralin label for tank mix rate selection.

PRODUCT MUST BE INCORPORATED INTO THE SOIL WITHIN 7 DAYS OF APPLICATION

Mixing

BOXER GOLD is an emulsifiable concentrate that mixes readily with water. Fill the spray tank to one quarter full. Add BOXER GOLD and continue adding water to make up to the final spray volume. Agitate while mixing and spraying.

When tank mixing wettable powder or water dispersible granule formulations should be added to the tank first followed by suspension concentrates (flowables), water soluble salts then BOXER GOLD or other emulsifiable concentrate formulations. Maintain thorough agitation during mixing and application. Agitate tank mixes vigorously if allowed to stand. Note: Tank mix spray solutions should NOT be left standing in the vat overnight.

Sprayer Clean Up

After using BOXER GOLD, empty the tank completely and drain the whole system. Thoroughly wash inside the tank using a pressure hose, drain the tank and clean any filters in the tank, pump, line and nozzles.

To rinse: After cleaning the tank as above, quarter fill the tank with clean water and circulate through the pump, lines, hoses and nozzles. Drain and repeat the rinsing procedure twice.

Compatibility

BOXER GOLD is compatible with any 1 of the following herbicides: 2,4-D ester, Hammer*, glyphosate, Logran[®] 750 WG Selective Herbicide, Logran[®] B-Power[®] Herbicide, metsulfuron methyl, Monza Herbicide, oxyfluorfen, Spray.Seed[®] 250 Herbicide and trifluralin. DO NOT tank mix with 2,4-D amine. **Always refer to plant back restrictions on the label of the tank mix partner.**

BOXER GOLD is compatible with any 1 of the following insecticides: alpha cypermethrin, bifenthrin, chlorpyrifos, dimethoate, Karate[®] with Zeon[®] Technology Insecticide and Supracide[®] 400 Emulsifiable Concentrate Insecticide.

BOXER GOLD is compatible with liquid Urea Ammonium Nitrate (UAN) fertilisers provided the spray solution is under constant high agitation.

As formulations of other manufacturers' products are beyond the control of Syngenta and water quality varies with location, all mixtures should be tested prior to mixing commercial quantities.

Application

Apply by ground rig only in a minimum of 50 L water/ha. Water rate selection should be based on soil type and stubble load. Stubble loads above 40 to 50% ground coverage can reduce weed control below acceptable levels. Water volumes greater than 70 L/ha are recommended in order to reduce the impact of stubble in direct drill or minimum tillage systems. Use a nozzle delivering spray quality in the medium to very coarse spray range. DO NOT apply by air.

Resistant Weeds Warning

GROUP	J	K	HERBICIDE
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BOXER GOLD Herbicide is a member of the thiocarbamates and chloroacetamides groups of herbicides. This product has the inhibitors of fat synthesis and inhibitors of cell division / inhibitors of very long chain fatty acids modes of action. For weed resistance management, this product is a Group J and Group K herbicide. Some naturally occurring weed biotypes resistant to this product and other Group J and/or Group K 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 J and/or Group K herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Syngenta Crop Protection Pty Limited accepts no liability for any losses that may result from the failure of this product to control resistant weeds. Advice as to strategies and alternative treatments that can be used should be obtained from your local supplier, consultant, local Department of Agriculture, Primary Industries Department or a Syngenta representative.

Resistance Management

Large numbers of healthy surviving weeds can be an indication that resistance is developing. Efforts should be made to prevent seed set of the surviving weeds. DO NOT make more than 1 application of a Group J or Group K herbicide with the inhibition of fat acid synthesis mode of action to a crop in the same season.

If the user suspects that the target weed population is resistant to herbicides with this mode of action, BOXER GOLD or other Group J or Group K herbicides should not be used. Strategies to minimise the risk of herbicide resistance are available. The above recommendations should be incorporated into an Integrated Weed Management (IWM) Program that uses a diverse range of options to manage grass weeds and avoids over reliance on any 1 method of control. Consult your farm chemical supplier, consultant, local Department of Agriculture or Primary Industries, or local Syngenta representative for details.

Tank Mixes

Application of BOXER GOLD at less than 2.5 L/ha when tank mixing for Annual Ryegrass control WILL NOT be effective in the control of Group D resistant populations nor to delay the onset of herbicide resistance development. Tank mixing of herbicides is only effective in managing resistance where a lethal dose rate of each herbicide is applied. Whilst a tank mixture of 2 herbicides of differing modes of action at sub-lethal dose rates may still provide a high level of weed control, the risk of developing resistance to multiple modes of action is increased. Tank mixtures of BOXER GOLD with trifluralin are only recommended where targeting additional weed species, on sandy soils where soil moisture is limiting or where product movement into the seeding zone poses a crop safety risk.

PRECAUTION

Re-entry Period: DO NOT allow entry into treated areas until the spray has dried unless wearing cotton overalls (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each day's use.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

DO NOT sow susceptible crops within 9 months of herbicide application.

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

DO NOT allow spray to drift onto adjacent fallow land.

DO NOT apply on or near shrubs, trees, lawns or crops other than wheat or barley.

DO NOT drain or flush equipment on or near desirable trees or other plants, where their roots may extend, or in situations where by movement of soil or by seepage absorption of the herbicide may occur.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

HIGHLY TOXIC TO AQUATIC ORGANISMS. DO NOT contaminate streams, rivers or waterways with the chemical or used containers.

DO NOT apply under meteorological conditions or from spraying equipment which could be expected to cause spray to drift onto adjacent areas, particularly wetlands, waterbodies or watercourses.

STORAGE AND DISPOSAL

Store in the closed, original container in a cool, well ventilated area. DO NOT store for prolonged periods in direct sunlight.

Returnable containers

Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

Other containers

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.

SAFETY DIRECTIONS

Will irritate the eyes and skin. Avoid contact with eyes and skin. When opening the container and preparing spray wear:

- cotton overalls, over normal clothing, buttoned to the neck and wrist
- washable hat
- elbow-length chemical resistant gloves
- face shield or goggles

When using the prepared spray wear:

- cotton overalls, over normal clothing, buttoned to the neck and wrist
- washable hat
- elbow-length chemical resistant gloves

If product on skin, immediately wash area with soap and water. If product in eyes, wash it out immediately with water. After each day's use wash gloves, face shield or goggles and contaminated clothing. Wash hands after use.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone 131 126.

MATERIAL SAFETY DATA SHEET

If additional hazard information is required, refer to the Material Safety Data Sheet. For a copy phone 1800 067 108 or visit our website at www.syngenta.com.au

MANUFACTURER'S WARRANTY AND EXCLUSION OF LIABILITY

Syngenta has no control over storage, handling and manner of use of this product. Where this material is not stored, handled or used correctly and in accordance with directions, no express or implied representations or warranties concerning this product (other than non-excludable statutory warranties) will apply. Syngenta accepts no liability for any loss or damage arising from incorrect storage, handling or use.

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