

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


BRUNO™
HERBICIDE

ACTIVE CONSTITUENT: 500 g/L CYANAZINE
ANTI-FREEZE: 40 g/L PROPYLENE GLYCOL

GROUP C HERBICIDE


A selective herbicide for the control of various weeds in field peas, processing peas, chickpeas, faba beans, lentils, vetches, onions, potatoes and sweetcorn as indicated in the DIRECTIONS FOR USE table.

IMPORTANT: READ THE ATTACHED LEAFLET BEFORE USING THIS PRODUCT



z elam

NET CONTENTS: 10 LITRES
APVMA Approval Number: 59867/10/0905



CHEMINOVA
HELPING YOU GROW

Distributed by: Cheminova Australia Pty Ltd, ABN 23 110 199 169 50, 12 Julius Avenue, North Ryde 2113 NSW, AUSTRALIA
Registered Trademark of Tapuae Partnership, NZ

DIRECTIONS FOR USE: FOR THE FULL DIRECTIONS FOR USE, READ THE ATTACHED BOOKLET BEFORE USING THIS PRODUCT.

RESISTANT WEEDS WARNING:
Bruno™ Herbicide is a member of the triazine group of herbicides. Bruno™ has the photosynthesis inhibition mode of action. For weed resistance management, Bruno™ is a Group C Herbicide. Some naturally-occurring weed biotypes resistant to Bruno™ 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 are used repeatedly. These resistant weeds will not be controlled by Bruno™ or other Group C herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Cheminova Australia Pty Ltd. accepts no liability for any losses that may result from the failure of Bruno™ to control resistant weeds.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS:
Do NOT overlap spray bands as double dosage may harm the crop and other non-crop vegetation. Do NOT allow spray drift on to susceptible crops. Do NOT apply in high winds.

PROTECTION OF LIVESTOCK:
On treated areas do NOT graze immature crops or cut immature crops for stockfeed.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT:
Do NOT contaminate ponds, waterways, irrigation channels or drains with the product or used container.

STORAGE AND DISPOSAL:
Store in the closed, original container, in a well-ventilated area, building or room, as cool as possible, away from children, animals or fodder. Do NOT store for prolonged periods in direct sunlight. Do NOT store with fertilisers, insecticides, fungicides and seed protectant product from frost. For containers of 20 litres or less, rinse container until wash water is clear. Add rinsings to spray tank. Do NOT dispose of undiluted chemicals on-site. Break, crush or puncture and bury empty containers in a local authority landfill. If not available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, vegetation and roots. Empty containers and product should NOT be burnt.

SAFETY DIRECTIONS:
Product is poisonous if absorbed by skin contact or inhaled or swallowed. Avoid contact with eyes and skin and clothing. Do NOT inhale spray mist. If product or spray on skin immediately wash area with soap and water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.

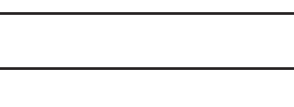
FIRST AID:
If poisoning occurs, contact a doctor or Poisons Information Centre. Telephone 131126 Australia-wide.

MATERIAL SAFETY DATA SHEET:
Additional information is listed in the Material Safety Data Sheet available on the Cheminova website at www.cheminova.com.au

EXCLUSION OF LIABILITY:
This product as supplied is of a high grade and suitable for the purpose for which it is expressly intended and must be used in accordance with the directions. The user must monitor the performance of any product as climatic, geographical or biological variable and/or developed resistance may affect the results obtained. No responsibility is accepted in respect of this product, save for those non-excludable conditions implied by the Trade Practices Act or any State legislation.

GROUP C HERBICIDE

Date of Manufacture: **Batch No:** **Distributed by:** Cheminova Australia Pty Ltd
ABN 23 110 199 169 50
12 Julius Avenue, North Ryde 2113 NSW, AUSTRALIA



CHEMINOVA
HELPING YOU GROW

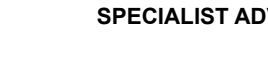
POISON
KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

BRUNO™
HERBICIDE

ACTIVE CONSTITUENT: 500 g/L CYANAZINE
ANTI-FREEZE: 40 g/L PROPYLENE GLYCOL


GROUP C HERBICIDE

A selective herbicide for the control of various weeds in field peas, processing peas, chickpeas, faba beans, lentils, vetches, onions, potatoes and sweetcorn as indicated in the DIRECTIONS FOR USE table.



CHEMINOVA
HELPING YOU GROW

IMPORTANT: READ THIS LEAFLET BEFORE USING THIS PRODUCT



z elam

Distributed by: Cheminova Australia Pty Ltd ABN 23 110 199 169 50
12 Julius Avenue, North Ryde 2113 NSW, AUSTRALIA
Phone: 1800 624 597 www.cheminova.com.au

Net Contents: **APVMA Approval Number:**
 5 Litres 59867/5/0905
 10 Litres 59867/10/0905
 20 Litres 59867/20/0905

SPECIALIST ADVICE IN EMERGENCY ONLY DIAL 1 800 033 111 ALL HOURS AUSTRALIA-WIDE

Page 1

CROP	WEED	STATE	RATE	CRITICAL COMMENTS
Peas	Blackberry nightshade (<i>Solanum nigrum</i>), black bindweed (<i>Polygonum convolvulus</i>), chickweed (<i>Stellaria media</i>), clovers (<i>Trifolium</i> spp.), cotula (<i>Cotula</i> spp.), crowfoot (<i>Erodium</i> , storksbill (<i>Erodium</i> spp.), docks (<i>Rumex</i> spp.), mountain sorrel (<i>Calandrinia caulescens</i>), persicaria (redshank) (<i>Polygonum persicaria</i>), plantain (<i>Plantago</i> spp.), sorrel (<i>Rumex acetosella</i>), sowthistle (<i>Sonchus oleraceus</i>), spear thistle (<i>Cirsium vulgare</i>), wild turnip (<i>Brassica rapa campestris</i>)	TAS only	2 or 4 litres per ha	Use the lower rate for light friable soils and the higher rate for soils high in organic matter and clay loams. Apply early post-emergence when weeds are in the young seedling stage. Applications are best made when the crop has reached the 4 node stage. Application prior to the 2 node stage or after flowering has commenced should be avoided. Do NOT use a rate greater than 2 L/ha when mixing with other registered herbicides used in accordance with local recommendations.
Onions				Use the lower rate for light friable soils and the higher rate for soils high in organic matter and clay loams. Apply after the second leaf is fully expanded and the third true leaf has emerged but NOT after the first signs of bulbing. Apply only in the cooler months (Late Autumn-Early Spring). May be used in a programme or applied in tank mixes with other herbicides at rates no greater than 1.5 L/ha when used in accordance with local recommendations.
Potatoes			4 litres per ha	Apply just before or as the crop is emerging, but before the majority of the crop has emerged. Applications when the majority of the crop has emerged should be avoided. Applications should be timed to coincide with moisture. May be used in a programme with other registered herbicides when used in accordance with local recommendations.
Sweetcorn			2 or 4 litres per ha	May be applied as a very early post-emergence treatment up to the 4-leaf stage. Application should be timed to coincide with moisture. Use the higher rate on soils high in organic matter and clay loams and/or where weeds have advanced beyond the seedling stage. Can be used in a programme with other registered herbicides when used in accordance with local recommendations. Applications made outside the constraints referred to should be avoided as crop damage may result.

Page 2

CROP	WEED	STATE	RATE	CRITICAL COMMENTS
Field peas, processing peas	Annual ryegrass (<i>Lolium rigidum</i>), blackberry nightshade (<i>Solanum</i> spp.), capeweed (<i>Arctotheca calendula</i>), chickweed (<i>Stellaria media</i>), crassula (<i>Crassula</i> spp.), deadnettle (<i>Lamium amplexicaule</i>), fat hen (<i>Chenopodium album</i>) (Not SA), mouse ear chickweed (<i>Cerastium</i> spp.), prickly lettuce (<i>Lactuca serriola</i>), rough poppy (<i>Papaver hybridum</i>), sowthistle (<i>Sonchus oleraceus</i>), spiny emex/three corned jack (<i>Emex australis</i>), staggerweed (<i>Stachys arvensis</i>), stinging nettle (<i>Urtica urens</i>), turnip weed (<i>Rapistrum rugosum</i>), wild mustard (<i>Sisymbrium</i> spp.), wild turnip (<i>Brassica tournefortii</i>) SUPPRESSION ONLY: Barley grass (<i>Hordeum leporinum</i>), fumitory (<i>Fumaria</i> spp.), great brome (<i>Bromus diandrus</i>), wild radish (<i>Raphanus raphanistrum</i>), wireweed (<i>Polygonum aviculare</i>)	NSW, SA, Vic only	3 or 4L per ha 2 or 3L per ha 1.5 or 2L per ha	Pre-sowing: Apply between 14 days before and up to sowing. Use the higher rate on heavier soil types. Where annual ryegrass and wireweed are a major problem, add trifluralin at recommended rates. Post-sowing/pre-emergence: Apply from immediately after sowing until one week after sowing. Use the higher rate on heavier soil types. Post-emergence: Apply from second node stage until the appearance of first flower buds. Use the higher rate where larger weeds are present. Do NOT apply post-emergence to Wirrega field peas.
Chickpeas, fababeans, lentils	Annual ryegrass (<i>Lolium rigidum</i>), blackberry nightshade (<i>Solanum</i> spp.), capeweed (<i>Arctotheca calendula</i>), chickweed (<i>Stellaria media</i>), crassula (<i>Crassula</i> spp.), deadnettle (<i>Lamium amplexicaule</i>), fat hen (<i>Chenopodium album</i>) (Not SA), mouse ear chickweed (<i>Cerastium</i> spp.), prickly lettuce (<i>Lactuca serriola</i>), rough poppy (<i>Papaver hybridum</i>), sowthistle (<i>Sonchus oleraceus</i>), spiny emex/three corned jack (<i>Emex australis</i>), staggerweed (<i>Stachys arvensis</i>), stinging nettle (<i>Urtica urens</i>), turnip weed (<i>Rapistrum rugosum</i>), wild mustard (<i>Sisymbrium</i> spp.), wild turnip (<i>Brassica tournefortii</i>) SUPPRESSION ONLY: Barley grass (<i>Hordeum leporinum</i>), fumitory (<i>Fumaria</i> spp.), great brome (<i>Bromus diandrus</i>), wild radish (<i>Raphanus raphanistrum</i>), wireweed (<i>Polygonum aviculare</i>)	NSW, Vic, SA only	3 or 4L per ha	Pre-sowing: Apply between 14 days before and up to sowing. Use the higher rate on heavier soil types. Where annual ryegrass and wireweed are a major problem, add trifluralin at recommended rates.
Vetches	Annual ryegrass (<i>Lolium rigidum</i>), blackberry nightshade (<i>Solanum</i> spp.), capeweed (<i>Arctotheca calendula</i>), chickweed (<i>Stellaria media</i>), crassula (<i>Crassula</i> spp.), deadnettle (<i>Lamium amplexicaule</i>), fat hen (<i>Chenopodium album</i>) (Not SA), mouse ear chickweed (<i>Cerastium</i> spp.), prickly lettuce (<i>Lactuca serriola</i>), rough poppy (<i>Papaver hybridum</i>), sowthistle (<i>Sonchus oleraceus</i>), spiny emex/three corned jack (<i>Emex australis</i>), staggerweed (<i>Stachys arvensis</i>), stinging nettle (<i>Urtica urens</i>), turnip weed (<i>Rapistrum rugosum</i>), wild mustard (<i>Sisymbrium</i> spp.), wild turnip (<i>Brassica tournefortii</i>) SUPPRESSION ONLY: Barley grass (<i>Hordeum leporinum</i>), fumitory (<i>Fumaria</i> spp.), great brome (<i>Bromus diandrus</i>), wild radish (<i>Raphanus raphanistrum</i>), wireweed (<i>Polygonum aviculare</i>)	SA only	2 or 3L per ha	Post-sowing/pre-emergence: Apply from immediately after sowing until one week after sowing. Use the higher rate on heavier soil types. POST-EMERGENCE APPLICATIONS TO CHICKPEAS, FABA BEANS, LENTILS AND VETCHES WILL RESULT IN CROP DAMAGE. NOTE: Fumitory is more effectively suppressed with pre-emergence applications.

Page 3

CROP	WEED	STATE	RATE	CRITICAL COMMENTS
Chickpeas, fababeans, lentils, Field peas, processing peas	Annual ryegrass (<i>Lolium rigidum</i>), capeweed (<i>Arctotheca calendula</i>), crassula (<i>Crassula</i> spp.), rough poppy (<i>Papaver hybridum</i>), doublegee (<i>Emex australis</i>), wild mustard (<i>Sisymbrium</i> spp.), wild turnip (<i>Brassica tournefortii</i>) SUPPRESSION ONLY: Barley grass (<i>Hordeum leporinum</i>), fumitory (<i>Fumaria</i> spp.), great brome (<i>Bromus diandrus</i>), wild radish (<i>Raphanus raphanistrum</i>), wireweed (<i>Polygonum aviculare</i>)	WA only	2L per ha 1 - 2L per ha	Pre-sowing: Apply immediately before sowing. When annual ryegrass and wireweed are a major problem, add trifluralin at recommended rates. Bruno should only be applied after initial weed germination has been killed by cultivation or knockdown spray. Total weed control is not expected but Bruno will effectively reduce weed competition to the point where the crop can compete effectively. Do NOT add anti-evaporant spraying oils. POST-EMERGENCE APPLICATIONS TO CHICKPEAS, FABA BEANS AND LENTILS WILL RESULT IN CROP DAMAGE. Post-emergence: Apply between 3 and 5 node stage of crop.
Field peas, processing peas	Deadnettle (<i>Lamium amplexicaule</i>), sow thistle (<i>Sonchus oleraceus</i>)	Qld only	3 or 4L per ha	Pre-sowing: Apply between 14 days before and up to sowing. Use the higher rate on heavier soil types. Where wireweed is a major problem, add trifluralin at recommended rates. Post-sowing/pre-emergence: Apply from immediately after sowing until one week after sowing. Use the higher rate on heavier soil types. POST-EMERGENCE APPLICATION TO CHICKPEAS, FABA BEANS AND LENTILS WILL RESULT IN CROP DAMAGE.
Field peas, processing peas	SUPPRESSION ONLY: Turnip weed (<i>Rapistrum rugosum</i>), wire weed (<i>Polygonum aviculare</i>)		1.5 or 2L per ha	Post-emergence: Apply from second node stage until the appearance of first flower buds. Use the higher rate where large weeds are present. Do NOT apply post-emergence to Wirrega field peas.

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

WITHOLDING PERIOD: NOT REQUIRED WHEN USED AS DIRECTED.

Page 4

GENERAL INSTRUCTIONS:

- Bruno Herbicide is a flowable suspension concentrate herbicide which controls a range of broadleaf and grass weed seedlings as they emerge. It will also control very young weeds (up to 3 cm) that are present at time of application. It is effective through root uptake from the soil as well as foliar uptake.
- Bruno has a relatively short persistence in the soil and its persistence is unlikely to cause damage to susceptible crops following in the rotation.
- Do NOT apply Bruno to soils with a high sand or gravel content e.g. sand or sandy loam soils. Bruno is not recommended for use on the Mallee soils of Victoria and South Australia.
- The activity of Bruno may be reduced in soils of a very high organic matter or clay content.
- Bruno may be used in conventional sowing or in direct drill and retained stubble situations. For best results, weeds should be young and actively growing. The smaller the weed, the more effective the treatment. Where possible, the seed bed should be free of weeds and large clods.
- Best results are obtained if Bruno is applied immediately after spraying. Under dry conditions there is no root uptake and results, especially against grass weeds and wireweed, may be poor.
- Pre-planting applications of Bruno should preferably be made IMMEDIATELY prior to planting to ensure maximum residual control. Effective weed control may last from 4 to 10 weeks depending on soil temperature, soil moisture, soil microbial organisms, soil pH, soil leaching and factors affecting Bruno volatility.
- Bruno is NOT recommended for control of heavy infestations of annual ryegrass and wireweed unless used in a mixture with trifluralin.
- Temporary crop damage (yellowing) may occur, particularly where Bruno is applied to crops grown on sand over clay (duplex) soils.

GROUP C HERBICIDE

Bruno Herbicide is a member of the triazine group of herbicides. Bruno has the photosynthesis inhibition mode of action. For weed resistance management, Bruno is a Group C Herbicide. Some naturally-occurring weed biotypes resistant to Bruno 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 are used repeatedly. These resistant weeds will not be controlled by Bruno or other Group C herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Cheminova Australia Pty Ltd. accepts no liability for any losses that may result from the failure of Bruno to control resistant weeds.

APPLICATION:
For pre-emergence applications, except in WA, weed control is generally most effective when Bruno is applied immediately after sowing and not controlled. Bruno should be applied uniformly by ground boom sprayer fitted with Fan Jets fully calibrated to ensure even application. Bruno should not be applied by aircraft. Spray volume is not critical but a rate of between 80 and 200 litres per hectare, at a speed of 10 to 15 kph, is suggested. If using lower spray volumes, nozzle output should not exceed 600 ml/minute. Product performance is likely to be reduced if spray equipment does not have continuous agitation during filling and constant agitation and spray pressure during the application process. When spraying, avoid overlapping of the spray bands, and shut off spray boom while starting, turning slowly or stopping. Failure to observe these procedures will cause higher rates of application on some areas resulting in crop damage. It is recommended that spraying be carried out from end to end rather than around the paddock. Plants damaged by wheel tracking may be more susceptible to herbicide damage.

MIXING:
Shake or roll the container several times before measuring out product to ensure that the ingredients are well mixed. There is no need for pre-mixing. Add the product to the half filled spray tank while agitating. Continue to agitate while topping up the tank and during spraying. Mixled partly used container immediately after use.

IN-TANK MIXTURES:
Add the required quantity of Bruno to water in the spray tank and mix thoroughly. Maintain agitation during mixing and application.

Page 5

COMPATIBILITY:
Bruno is compatible with both trifluralin and triallate. Where annual ryegrass and wireweed are present a Bruno trifluralin mixture may be used. Bruno may be mixed with triallate if wild oats are a problem weed.

Incorporation should be carried out according to the trifluralin and triallate label recommendations respectively. Where a range of depth of incorporation is indicated, these mixtures should be incorporated as shallow as possible. Heavy rain following deep incorporation (more than 5 cm deep) may result in Bruno being leached below the layer of germination for shallow germinating weeds (e.g. wild mustard, deadnettle). For this reason, application of Bruno separately is always preferable. Where Bruno is incorporated alone, this should be to a depth of 2 cm only.

Where weeds have become too advanced for control prior to sowing, Bruno may be applied with ammonium sulphate (2% N/V). Bruno may be used with glyphosate and a paraquat/diquat mix. When mixing glyphosate with Bruno it is necessary to add crystalline ammonium sulphate (2% N/V) according to the directions on the glyphosate label.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS:
Do NOT overlap spray bands as double dosage may harm the crop and other non-crop vegetation. Do NOT allow spray drift on to susceptible crops. Do NOT apply in high winds.

PROTECTION OF LIVESTOCK:
On treated areas do NOT graze immature crops or cut immature crops for stockfeed.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT:
Do NOT contaminate ponds, waterways, irrigation channels or drains with the product or used container.

STORAGE AND DISPOSAL:
Store in the closed, original container, in a well-ventilated area, building or room, as cool as possible, away from children, animals or fodder. Do NOT store for prolonged periods in direct sunlight. Do NOT store with fertilisers, insecticides, fungicides and seeds. Protect product from frost. For containers of 20 litres or less, rinse container until wash water is clear. Add rinsings to spray tank. Do NOT dispose of undiluted chemicals on-site. Break, crush or puncture and bury empty containers in a local authority landfill. If not available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, vegetation and roots. Empty containers and product should NOT be burnt.

SAFETY DIRECTIONS:
Product is poisonous if absorbed by skin contact or inhaled or swallowed. Avoid contact with eyes and skin and clothing. Do NOT inhale spray mist. If product or spray on skin immediately wash area with soap and water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.

FIRST AID:
If poisoning occurs, contact a doctor or Poisons Information Centre. Telephone 131126 Australia-wide.

MATERIAL SAFETY DATA SHEET:
Additional information is listed in the Material Safety Data Sheet available from Cheminova Australia Pty Ltd.

EXCLUSION OF LIABILITY:
This product as supplied is of a high grade and suitable for the purpose for which it is expressly intended and must be used in accordance with the directions. The user must monitor the performance of any product as climatic, geographical or biological variable and/or developed resistance may affect the results obtained. No responsibility is accepted in respect of this product, save for those non-excludable conditions implied by the Trade Practices Act or any State legislation.

Date of Manufacture: **Batch No:**

Page 6