

TOXIC, ECOTOXIC
KEEP OUT OF REACH OF CHILDREN

zelam

® B BRUNO™

**For selective control of various weeds
in maize, onions, peas, potatoes, lentils,
lucerne, and sweetcorn.**

H E R B I C I D E

NET CONTENTS: 10 LITRES

™ Trademark of Tapuae Partnership, NZ.
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PLEASE READ ENTIRE LABEL BEFORE MIXING OR APPLYING. SHAKE OR STIR WELL BEFORE USE.

Beware: Apply this product carefully. Spray drift may cause serious damage to desirable plants or where their roots may extend, or in locations where the chemical may be washed or moved to their roots.

CROP	WEEDS CONTROLLED	RATE	DIRECTIONS FOR USE
PEAS	Weeds from seedling to 4 true leaf stage: spurrey, black nightshade, cornbind, willow weed, groundsel, brassica species, annual poa, speedwell, shepherds purse, calandrinia and twin cress. Fathen, redroot fumitory and white clover are controlled only up to the 2 true leaf stage and become partially or totally resistant with increased size. Wireweed is partially controlled. Weeds not reliably controlled include: storksbill, couch, wild oats, field poppy, tares, California thistle, yellow and docks arising from old root stocks. Many grasses particularly perennial grasses are not controlled.	3 litres in 300 litres of water/ha	Apply at weed emergence but not to crops less than 5cm high or crops suffering from disease. If weeds have progressed beyond the 4 leaf stage use 2.5-3 litres plus 1.0-1.4 litres MCPB. The mixture should be used to control more advanced fathen seedlings and to improve effectiveness on wireweed. Best results when applied to moist soils. Caution: DO NOT apply if soil conditions are dry. DO NOT apply to peas grown on very light predominantly sand or peaty soil types. DO NOT apply to poorly prepared seedbeds containing large clods as these will protect some germinating weeds from herbicide contact. DO NOT apply within 7 days before or after rolling the emerged pea crop. DO NOT apply during drizzle or rain or to peas that are wet with dew as crop scorch can result. DO NOT overlap spray patterns eg. turns and corners.
POTATOES		2-4 litres/ha	Apply just before or as the crop is emerging. When application is made after emergence the crop may show temporary signs of yellowing. For a broader spectrum of weed control Bruno may be tank mixed with other herbicides such as Jazz (500 g/litre metribuzin) at recommended rates. Use the low rate of Bruno when tank mixing and the high rate when weeds are larger.
LENTILS		3-4 litres in 200-300 litres of water/ha	Apply immediately after planting. Use the higher rate for high populations of polygonum type weeds. Caution: DO NOT apply if soil conditions are dry. DO NOT apply to poorly prepared seedbeds containing large clods, as these will protect some germinating weeds from contact with the herbicide. DO NOT overlap spray patterns eg. turns and corners.
LUCERNE	Seedling storksbill, musky storksbill, chickweed, barley grass, annual poa, scrambling speedwell, hairgrass, twin cress and seedling browntop.	2-3L plus paraquat at the recommended rate in 200-300L of water/ha	Use the higher rates when weeds are past the seedling stage, on soils high in clay or organic matter or where application is later than the end of June. Apply to closely grazed stands in winter when lucerne is dormant but after weeds have been allowed to freshen. Avoid application when frost is on the foliage or when ground conditions are excessively wet. Caution: DO NOT apply to young lucerne stands until after plants have developed a crown.
MAIZE, SWEETCORN	Up to the 2 leaf true stage: annual poa, banyard grass, black nightshade, bristle grass, crowfoot grass, fathen, redroot, summer grass, willow weed, and witch grass. Weeds not controlled include: broad-leaved dock, narrow-leaved plantain, dandelion, Californian thistle, Scotch thistle.	2-3L plus 5-7L alachlor at the recommended rate in 200-300L of water/ha	Apply immediately after planting. Apply to a moist, firm clod and trash free surface, followed by 10-20mm of rain or irrigation within 7 days. If rain is not expected within 3 days then application should be accompanied by light chain harrowing to move the chemicals into the soil. The addition of alachlor extends the spectrum of weeds to include most annual grasses. In dry clay soils, alachlor should be incorporated prior to planting, then use 2-3 litres of Bruno ™ immediately after planting.
ONIONS	Buttercup, daisy, dandelion, fumitory, hedge mustard, mayweed, plantain, volunteer potato (suppression), storksbill, and twin cress. Partial control of sow thistle, toad rush, white clover, and wireweed.	450 ml/ha plus 450 ml/ha Elliotriol™	Apply the mixture once the onions have two true leaves. Use up to four applications at 7-10 day intervals as necessary. Spray at low pressure and avoid drift. Do not add any surfactants. Warning: Some crop damage such as burning, twisting, and distortion of young leaves is likely to occur in the first days following application. Allow three to four days to elapse after spraying Bruno before applying other products as the adjuvants in them may re-activate the Bruno and cause damage to the crop. Do not apply more than 2 litres of Bruno per ha per crop per year.
	Improved control of clover, cleavers, sow thistle, toad rush, and wireweed.	450 ml/ha plus 750 ml/ha Twin-Star™.	

MODE OF ACTION: Primarily absorbed by roots, but some scorching of foliage in susceptible weeds.

Following uptake it inhibits photosynthesis resulting in yellowing and then death.

RAINFALL: Rain falling soon after treatment will improve results as **Bruno**™ needs to be moved into the root zone of weeds to be effective. See caution statement under peas.

COMPATIBILITY: May be tank mixed with likely additives including alachlor, metolachlor and paraquat.

APPLICATION: Apply with boom spraying equipment fitted with fan nozzles. Use 200-300 litres of water/ha. Maintain agitation during spraying and avoid overlapping. Sprayer clean-up: To avoid injury to subsequently sprayed sensitive crops, thoroughly flush sprayer with several rinses of clean water.

MATERIAL SAFETY DATA SHEET: Additional information is listed in the MSDS available from Zelam Ltd or www.zelam.com.

ERMA NEW ZEALAND: Additional information is available from the ERMA NZ website - www.ermanz.govt.nz. Approval Code: HSR000964.

REGISTERED TO: Tapuae Partnership, Hudson Rd, New Plymouth, NZ. Tel: 06 755-9234 Fax: 06 755-1174

EMERGENCY PHONE: 0800 CHEMCALL - 0800 243 6225

ACTIVE INGREDIENT: Contains 500g/litre cyanazine in the form of a suspension concentrate.

APPROVED HANDLER: This product must be under the control of an approved handler during use. See MSDS for full details.
RECORD KEEPING: Records of use must be kept under certain circumstances. See MSDS for full details.

DANGER: May cause organ damage from repeated oral exposure at high doses.

Warning: May be harmful if swallowed, inhaled or absorbed through the skin. Avoid contact with skin and eyes. May cause reproductive/development damage from repeated oral exposure.
FIRST AID: If swallowed DO NOT induce vomiting. For advice contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor immediately. If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. DO NOT scrub the skin. If splashed in eyes, wash out immediately with water. If inhaled move the victim to fresh air immediately. Begin artificial respiration if breathing has stopped.

PERSONAL PROTECTION: When mixing or applying wear eye protection, chemical resistant gloves, boots and cotton overalls buttoned to the neck and wrist. Wash protective clothing daily after work.

ECOTOXICITY: Very toxic to aquatic organisms. Avoid contamination of any water supply with product or empty container. Toxic to terrestrial vertebrates.

STORAGE: Store in original container, tightly closed, away from foodstuffs.

SHELF LIFE: When stored appropriately, this product should show no significant degradation for 2 years from the date of manufacture. Contact your supplier for further information about the use of any product that is older than this.

DISPOSAL: Rinse container until wash water is clear. Dispose of container at an approved landfill or other approved facility. Avoid contamination of any water supply with product or empty container.

NOTICE TO BUYER: The manufacturer and vendors of **Bruno** warrant the formulation to contain the specified active ingredient within accepted tolerance but make no warranty of any kind on the uses of material and accept no responsibility, whether the material is used in accordance with the label directions or not.

BATCH NO:

D.O.M:

