

POISON

KEEP OUT OF REACH OF CHILDREN

READ SAFETY DIRECTIONS BEFORE OPENING OR USING



F.S.A.

**PROSULFOCARB
800 EC
HERBICIDE**

ACTIVE CONSTITUENT: 800 g/L PROSULFOCARB

SOLVENT: 114.8 g/L LIQUID HYDROCARBON

GROUP **15** HERBICIDE

For the control of Annual Ryegrass (*Lolium rigidum*) and other grass and broadleaf weeds in Barley and Wheat as specified in the Directions for Use Table.

IMPORTANT: READ THIS BOOKLET BEFORE USING THIS PRODUCT



DIRECTIONS FOR USE

RESTRAINTS

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.

DO NOT irrigate treated fields to the point of run off within 3 days of application.

DO NOT apply more than 2.5 L/ha per single growing season.

Mandatory No-Spray Zones:

DO NOT apply if there are aquatic and wetland areas including aquacultural ponds within 20 metres downwind from the application area.

DO NOT apply if there is non-target vegetation within 10 metres downwind from the application area.

CROPS	WEEDS	RATE/ha	CRITICAL COMMENTS
Barley, Wheat	Annual Ryegrass (<i>Lolium rigidum</i>) including control of Group 3 resistant populations, Suppression of Silver Grass (<i>Vulpia</i> spp.)	2.5 L	A standalone application of F.S.A. Prosulfocarb 800 EC can control lower densities of annual ryegrass i.e. ≤ 100 ryegrass plants/m ² . Under heavier weed pressure, ryegrass emergence and panicle production will be suppressed but may not be adequately controlled. 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.
	Annual Ryegrass (<i>Lolium rigidum</i>), Paradoxa Grass (Canary Grass), <i>Phalaris</i> spp., Red and White Fumitory, Sand Fescue, Soil surface Wild Oats, Wireweed (Hogweed)	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 F.S.A. PROSULFOCARB 800 EC Herbicide where Group 3 resistance is confirmed or suspected. Use of F.S.A. PROSULFOCARB 800 EC Herbicide below 2.5 L/ha alone or in a tank mix WILL NOT be effective in the control of Group 3 resistant Annual Ryegrass nor to delay the onset of herbicide resistance development. Refer to Tank Mixes under General Instructions.
	Suppression of Barley Grass (<i>Hordeum</i> spp.), Brome Grass, Deadnettle, Rough Poppy, Silver Grass (<i>Vulpia</i> spp.) Yellow Burr Weed	2.5 L plus 1.5 L of a 480 g/L trifluralin	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 higher rates for Sand Fescue. 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 F.S.A. PROSULFOCARB 800 EC Herbicide. 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.

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

F.S.A. Prosulfocarb 800 EC Herbicide 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.

F.S.A. Prosulfocarb 800 EC Herbicide 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 in barley and wheat 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 or irrigation 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 F.S.A. Prosulfocarb 800 EC Herbicide is a combination of positional and physiological selectivity. Positional selectivity must be maintained by sowing at an adequate depth below the herbicide band. The physiological selectivity of F.S.A. Prosulfocarb 800 EC Herbicide 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. Shallow seeding is not recommended due to the greater potential for movement of herbicide within close proximity of the emerging crop. Conditions resulting in poor root development or the occurrence of crop stresses including waterlogging, drought, frost, nutrient deficiency or disease can result in unacceptable crop damage and yield loss as a result of root uptake of herbicide. Although crop tolerance has been clearly demonstrated in a wide range of registered crop cultivars, differences in relation to the tolerance of recent and future release cultivars may exist. 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 press wheels 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.**

When used in a tank mix with trifluralin, apply within 24 hours of sowing and mechanically incorporated using the IBS operation.

Mixing

F.S.A. Prosulfocarb 800 EC Herbicide is an emulsifiable concentrate that mixes readily with water. Fill the spray tank to one quarter full. Add F.S.A. Prosulfocarb 800 EC Herbicide 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 F.S.A. Prosulfocarb 800 EC Herbicide 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 F.S.A. Prosulfocarb 800 EC Herbicide, 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

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

For more information, please contact your local representative.

ALWAYS REVIEW LABEL GUIDELINES FOR THE TANK MIX PARTNER PRIOR TO APPLYING WITH F.S.A. PROSULFOCARB 800 EC HERBICIDE.

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 coarse spray range. DO NOT apply by air.

Tank Mixes

Application of F.S.A. Prosulfocarb 800 EC Herbicide at less than 2.5 L/ha when tank mixing for Annual Ryegrass control WILL NOT be effective in the control of Group 3 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 F.S.A. Prosulfocarb 800 EC Herbicide 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.

RESISTANT WEEDS WARNING

GROUP	15	HERBICIDE
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F.S.A. Prosulfocarb 800 EC Herbicide is a member of the thiocarbamates group of herbicides. This product has the inhibitors of fat synthesis mode of action. For weed resistance management, this product is a Group 15 herbicide. Some naturally occurring weed biotypes resistant to this product and other Group 15 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 15 herbicides.

Since the occurrence of resistant weeds is difficult to detect prior to use, Four Seasons Agribusiness Pty Ltd accepts no liability for any losses that may result from the failure of this product to control resistant weeds.

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 Group 15 herbicide with the inhibition of fat 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, F.S.A. Prosulfocarb 800 EC Herbicide or other Group 15 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 one method of control. Advice as to strategies and alternative treatments that can be used should be obtained from the local supplier, consultant, local Department of Agriculture, Primary Industries Department or representative.

Re-entry Period:

DO NOT enter treated areas until the spray has dried unless wearing cotton overalls buttoned to the neck and wrist (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 barley or wheat.

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.

Triple rinse containers before disposal. Add rinsings to the 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.

Returnable containers:

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

SAFETY DIRECTIONS

Will irritate the eyes and skin. Repeated exposure may cause allergic disorders. Sensitive workers should use protective clothing. Avoid contact with eyes and skin. When opening the container and preparing product and using the product, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and elbow-length chemical resistant gloves and face shield or goggles. In addition, when opening the container and mixing and loading, wear disposable mist face mask covering mouth and nose. If product on skin, immediately wash area with soap and water. If product in eyes, wash it out immediately with water. Wash hands after use. After each day's use, wash gloves and face shield or goggles and contaminated clothing.

FIRST AID

If in eyes wash out immediately with water. If poisoning occurs, contact a Doctor or Poisons Information Centre. Phone Australia 13 11 26, New Zealand 0800 764 766.

SAFETY DATA SHEET

Additional information is listed in the Safety Data Sheet that can be obtained from the supplier.

CONDITIONS OF SALE

The sale, supply, storage, use and application of this product is beyond the control of the manufacturer, and, subject to this provision, all warranties, conditions, rights and remedies express or implied under common law, statute or otherwise, in relation to the sale, supply, storage, use or application are excluded. Four Seasons Agribusiness Pty Limited and its associated entities shall not accept any liability whatsoever (including consequential loss) or however arising (including negligence) for any damage, injury or death connected with the sale, supply, storage, use or application of this product except for liability which cannot be excluded by statute.

Combustible liquid. Harmful if swallowed. Toxic to aquatic life with long lasting effects. Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Avoid breathing fumes, mists, vapours or spray. Do not eat, drink or smoke when using this product. Avoid release to the environment. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. If skin irritation or rash occurs: Get medical advice. Collect spillage. In case of fire, use carbon dioxide, dry chemical, foam. Alcohol resistant foam is the preferred firefighting medium but, if it is not available, normal foam can be used.

**IN AN EMERGENCY
DIAL 000
POLICE OR FIRE BRIGADE**



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