

READ SAFETY DIRECTIONS BEFORE OPENING OR USING

Crop Care
FLAME[®]
HERBICIDE

ACTIVE CONSTITUENT: 240 g/L IMAZAPIC present as the ammonium salt

GROUP	B	HERBICIDE
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For the pre-emergence control of certain annual grass and broadleaf weeds in fallow situations, sugarcane and peanuts and early post-emergence control of certain annual grass and broadleaf weed in peanuts and sugarcane as specified in the DIRECTIONS FOR USE section of this label.

IMPORTANT: READ THE ATTACHED LEAFLET BEFORE USE

Contents: 1 Litre
5 Litres
20 Litres

Crop Care Australasia Pty Ltd, 77 Tingira Street, Pinkenba Qld 4008

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 or preferably pressure rinse containers before disposal. Add rinsate 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. Avoid contact with eyes. When opening the container and preparing spray, wear elbow-length PVC gloves. Wash hands after use. After each day's use, wash gloves. When tank-mixing with STOMP® or Shirquat, consult also the safety directions for those products.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26.

MATERIAL SAFETY DATA SHEET

Additional information is listed in the Material Safety Data Sheet which can be obtained from your supplier.

Conditions of sale

Crop Care Australasia Pty Ltd will not accept any responsibility whatsoever and howsoever arising and whether for consequential loss or otherwise in connection with the supply or use of these goods other than responsibility for the merchantable quality of the goods and such responsibilities mandatorily imposed by Statutes applicable to the sale or supply of these goods. To the extent allowed by such Statutes the liability of Crop Care Australasia Pty Ltd is limited to the replacement of the goods or (at the option of Crop Care Australasia Pty Ltd) the refund of the price paid and is conditional upon a claim being made in writing and where possible sufficient part of the goods to enable proper examination being returned to Crop Care Australasia Pty Ltd within thirty days of delivery.

In a Transport Emergency Dial 000 Police or Fire Brigade	SPECIALIST ADVICE IN EMERGENCY ONLY 1800 033 498 ALL HOURS - AUSTRALIA WIDE
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® Registered trademark of BASF



Crop Care Australasia Pty Ltd
ACN 061 362 347
77 Tingira Street
PINKENBA Qld 4008
Ph : (07) 3867 9100

Insert Barcode
Label code and
drum muster
where
appropriate

APVMA Approval No. :58872/1L,5L,20L/0504

BN

DOM

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DIRECTIONS FOR USE**RESTRAINTS:**

DO NOT apply to soils saturated with water.

DO NOT apply by aircraft.

SITUATION	WEEDS CONTROLLED	RATE/ha	CRITICAL COMMENTS
Fallow prior to planting winter crops as directed in the follow crops table (Qld and Nthn NSW only)	Barnyard grass (<i>Echinochloa colona</i>), Liverseed grass (<i>Urochloa panicoides</i>), Stink grass (<i>Eragrostis cilianensis</i>), Blowaway grass (<i>Panicum decompositum</i>), Button grass (<i>Dactyloctenium radulans</i>), Pigweed (<i>Portulaca oleracea</i>), Yellow vine (<i>Tribulus terrestris</i>), Mintweed (<i>Salvia reflexa</i>), Boggabri weed (<i>Amaranthus mitchelli</i>), Dwarf amaranth (<i>Amaranthus macrocarpus</i>), Peachvine/cowvine (<i>Ipomoea lonchophylla</i>)	150 to 200 mL	Treatments may be applied from the end of the previous crop harvest but not less than 3 months prior to planting of winter crop (refer to follow crops table). Best results are obtained where treatments are applied to dry, weed-free soil prior to weed germination. Treatments can be applied to standing crop residues. Sufficient rainfall is required after application and prior to weed emergence to wet soil to a depth of 5 cm. Use the higher rates for increased residual control of weeds or anticipated high weed pressure. Emerged weeds must be controlled by prior cultivation, or by application of a knockdown herbicide. Where infestation of emerged weeds is light, tank mix treatment with glyphosate or paraquat. Cultivation following application of treatments may reduce pre-emergence weed control provided by FLAME. Prolonged wet soil conditions following treatment will reduce the effective life of pre-emergence treatments. Weed escapes may require follow up application of knockdown herbicides. DO NOT apply more than 200 mL/ha per season on cropland. DO NOT apply in more than two successive seasons on cropland. DO NOT overspray headlands.
Sugarcane (Qld, NSW and WA only)	Awnless barnyard grass (<i>Echinochloa colona</i>), Barnyard grass (<i>E. crus-galli</i>), Blackberry nightshade (<i>Solanum nigrum</i>), Blue billygoat weed (<i>Ageratum houstonianum</i>), Common sida (<i>Sida rhombifolia</i>), Giant/Black pigweed (<i>Trianthema portulacastrum</i>), Glossy nightshade (<i>Solanum americanum</i>), Green amaranth (<i>Amaranthus viridis</i>), Green summer grass (<i>Brachiaria subquadriflora</i>), <i>Ipomoea</i> spp., Guinea grass (<i>Panicum maximum</i>), Liverseed grass (<i>Urochloa panicoides</i>), Milkweed (Mexican fire plant) (<i>Euphorbia heterophylla</i>), Pigweed (<i>Portulaca oleracea</i>), Summer grass (<i>Digitaria ciliaris</i>)	300 to 400 mL	DO NOT apply more than once a year to the same crop. Pre-emergence application: PLANT CANE: Apply after planting and before emergence of the cane. On sandy soil, ensure thorough coverage of setts to a minimum depth of 5 cm. RATOON: Apply after harvest and before new cane growth appears. Use the higher rates of FLAME for increased residual control of weeds or anticipated high weed pressure. Heavy trash layers may prevent the product from reaching the soil. Apply to weed-free soil prior to weed germination. Sufficient rainfall, or overhead irrigation, is required after application and prior to weed emergence to wet soil to a minimum depth of 5 cm. Emerged weeds must be controlled by prior cultivation, or application of an appropriate herbicide. Weed control can be improved under dry conditions or where incorporating moisture has been insufficient, by cultivating the treated soil above setts. Care needs to be taken to minimise exposure of untreated soil or setts. Pre-emergence weed control may be limited on Krasnozom or red brown Ferrosol soil types, where moisture is not maintained in the top 5 cm of soil. Refer to Soil Type in the General Instructions. Heavy rain and/or irrigation within 2 days following application may concentrate FLAME in the furrow and cause temporary yellowing and stunting of cane leaves. Prolonged wet soil and/or cool conditions can increase crop damage, especially in sandy soil. Normal growth will return when conditions become warm and drier. Weed escapes may require follow up application of an appropriate herbicide. Contact Crop Care for advice on variety susceptibility before using this product (refer to the CROP SAFETY section of the label).

SITUATION	WEEDS CONTROLLED	RATE/ha	CRITICAL COMMENTS
Sugarcane (Qld, NSW and WA only)	As above plus Crowsfoot grass (<i>Eleusine indica</i>)	400 mL plus 3 L STOMP® 330E or 2.2 L STOMP Xtra	Incorporate into the soil within 7 days of application, either by overhead irrigation, rainfall or mechanical incorporation, to a minimum depth of 5 cm. Read all directions for use in sugarcane as well as the Restraints and Follow Crops restrictions on the STOMP 330E or STOMP Xtra label.
	As above plus control of those weeds expected with these rates of 250 g/L paraquat products alone.	300 to 400 mL plus 1.2 to 1.6 L of 250 g/L paraquat product (e.g. Shirquat)	<p>Post-emergence application (in emerged cane): ALWAYS tank mix FLAME with registered and appropriate rates of paraquat for the emerged weeds. Use the higher rates of FLAME for increased residual control of weeds or anticipated high weed pressure. Use the higher rates of paraquat for dense, more mature weeds. Apply as a carefully directed inter-row spray to weeds and at the base of the plant, minimising contact with sugarcane foliage. Contact with sugarcane foliage may cause temporary crop damage observed as inter-veinal yellowing and reduction in crop biomass or crop height. Refer to Shirquat (or equivalent) label re spray boom types and precautions. Reduce the incidence of "fines" by using the correct nozzles and operating pressures. Replace worn or old nozzles and calibrate equipment on a regular basis. DO NOT cultivate within 1 hour of application. Heavy rain and/or irrigation within 2 days following application may concentrate FLAME in the furrow and cause temporary yellowing and stunting of cane leaves. DO NOT spray plants covered with heavy dew. Prolonged wet soil and/or cool conditions can increase crop damage, especially in sandy soil. Normal growth will return when conditions become warm and drier. Pre-emergence weed control may be limited on Krasnozem or red brown Ferrosol soil types, where moisture is not maintained in the top 5 cm of soil. Refer to Soil Type in the General Instructions. Contact Crop Care for advice on variety susceptibility before using this product (refer to the CROP SAFETY section of the label).</p>
Peanuts (Qld, NSW and NT only)	Awnless barnyard grass (<i>Echinochloa colona</i>), Barnyard grass (<i>E. crus-galli</i>), Blackberry nightshade (<i>Solanum nigrum</i>), Blue billygoat weed (<i>Ageratum houstonianum</i>), Common sida (<i>Sida rhombifolia</i>), Giant/Black pigweed (<i>Triathema portulacastrum</i>), Glossy nightshade (<i>Solanum americanum</i>), Green amaranth (<i>Amaranthus viridis</i>), Green summer grass (<i>Brachiaria subquadriflora</i>), Ipomoea spp., Guinea grass (<i>Panicum maximum</i>), Liverseed grass (<i>Urochloa panicoides</i>), Milkweed (Mexican fire plant) (<i>Euphorbia heterophylla</i>), Pigweed (<i>Portulaca oleracea</i>), Summer grass (<i>Digitaria ciliaris</i>)	300 to 400 mL	<p>Pre-emergence application. Optimum weed control will occur when moisture is maintained in the top 5 cm of soil. Apply to weed-free soil prior to weed germination. Sufficient rainfall, or overhead irrigation, is required after application and prior to weed emergence to wet soil to a minimum depth of 5 cm. Use the higher rates for increased residual control of weeds or anticipated high weed pressure. Pre-emergence weed control may be limited on Krasnozem or red brown Ferrosol soil types, where moisture is not maintained in the top 5 cm of soil. Refer to Soil Type in the General Instructions. DO NOT apply to any one crop more than once per season.</p>

SITUATION	WEEDS CONTROLLED	RATE/ha	CRITICAL COMMENTS
	As above plus Nutgrass* (<i>Cyperus rotundus</i>)	400 mL plus Hasten ^{TM1} or Kwicken ^{TM2} at 1 L/100 L (or a similar esterified oil adjuvant)	Post-emergence application. Apply prior to crop flowering. DO NOT apply to any one crop more than once per season. * Nutgrass: suppression only when applied to nutgrass at the 3 to 4 leaf stage.

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

WITHHOLDING PERIODS:

HARVEST : NOT REQUIRED WHEN USED AS DIRECTED.

GRAZING/STOCKFEED WHP:

Wheat, Barley, Chickpea, Peanuts: DO NOT GRAZE TREATED VEGETATION, STUBBLE OR WEEDS, OR CUT FOR STOCKFOOD, FOR 4 WEEKS AFTER APPLICATION.

Sugarcane: DO NOT GRAZE CROP OR SPRAYED VEGETATION, OR CUT FOR STOCKFOOD, FOR 6 WEEKS AFTER APPLICATION.

GENERAL INSTRUCTIONS

All Applications

Reduce the incidence of "fines" by using the correct nozzles and operating pressures. Replace worn or old nozzles and calibrate equipment on a regular basis.

Fallow application:

FLAME can be applied in fallow prior to the planting of various crops as outlined in the Fallow Crops table. FLAME is a pre-emergence herbicide, which is recommended to provide short term (6 to 12 weeks) pre-emergence control of summer germinating grasses and broadleaved weeds in cultivated or uncultivated fallow. A green weed cover of greater than 50% will significantly reduce the length of pre-emergence weed control.

Sugarcane application

Pre-emergence

Where possible, apply to soil two days prior to incorporation. Incorporate with adequate irrigation or rainfall to a minimum depth of 5 cm. Incorporation by flood irrigation may result in loss of weed control. FLAME should be applied to plant or ratoon cane before the cane has emerged. When applying FLAME in moist conditions, allow weeds to germinate prior to application and apply mixed with an appropriate knockdown herbicide. Whenever emerged weeds are present, FLAME should be mixed with an appropriate knockdown herbicide.

Post-emergence

FLAME MUST always be mixed with registered rates of paraquat (ie Shirquat) and applied as a carefully directed inter-row spray to weeds and at the base of the sugarcane stalks, minimising spray contact with sugarcane foliage. DO NOT add crop oil to this mixture. Other surfactant or adjuvant is not required.

Peanut application

Pre-emergence:

Apply to soil and incorporate with adequate irrigation or rainfall to a minimum depth of 5 cm.

Post-emergence:

FLAME must always be mixed with an adjuvant as directed in the DIRECTIONS FOR USE section of the label.

Soil Type:

Pre-emergence weed control with FLAME can be limited when applied onto soils with pH <5.0 and/or which contain high concentrations of iron (Fe) and/or aluminium (Al). These situations are common in soil types such as Krasnozems and red brown Ferrosols.

MIXING

FLAME is an aqueous solution. Part fill the spray tank with water, then with agitator running, add the required amount of product, then fill the tank with water. When tank mixing this product with other recommended compatible products, first add the other product to the tank and mix thoroughly before adding this product. For post-emergence applications in peanuts, add adjuvant after the addition of FLAME to the tank.

No adjuvants or surfactants are required when FLAME is used alone for pre-emergence weed control or with paraquat. DO NOT add crop oil when applied post-emergence with paraquat.

APPLICATION

DO NOT apply by aircraft.

Fallow application:

Apply with boom equipment in not less than 50 L/ha water using flat fan nozzles. Avoid overlap and do not overspray headlands.

Sugarcane:

Ensure thorough coverage of soil and weeds with well-calibrated spray equipment. Apply in a minimum of 200 L water/ha using a nozzle configuration to generate a medium to coarse spray pattern for pre-emergence applications or medium spray pattern for post-emergence applications. Replace worn or old nozzles and calibrate equipment on a regular basis.

Peanuts:

Apply with boom equipment in not less than 50 L/ha water using flat fan nozzles. Avoid overlap and do not overspray headlands. For post-emergence applications, FLAME should be applied a minimum of 2 hours before rainfall.

EQUIPMENT CLEAN-UP

Thoroughly flush all spray equipment with water following the use of FLAME and before use with other products.

COMPATIBILITY

FLAME is compatible with STOMP[®], atrazine, glyphosate, paraquat, paraquat + diquat, Ally⁺, Garlon⁺, Touchdown⁺ and 2,4-D.

It is NOT compatible with dicamba.

RESISTANT WEEDS WARNING

GROUP	B	HERBICIDE
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Crop Care FLAME Herbicide is a member of the imidazolinone group of herbicides. The product has the inhibitors-of-acetolactate-synthase (ALS) mode of action. For weed resistance management, the product is a Group B herbicide. Some naturally-occurring weed biotypes resistant to this product and other Group B 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 B herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Crop Care Australasia Pty Ltd accepts no liability for any losses that may result from the failure of this product to control resistant weeds.

FOLLOW CROPS

Under conditions which do not favour breakdown of this product, carry-over soil residues can affect susceptible follow crops. As environmental and agronomic factors make it impossible to eliminate all risks associated with this product, rotational crop injury is always possible. The following minimum re-cropping intervals (months after application) should be observed.

Following use in summer fallow:-

MONTHS AFTER APPLICATION				
3	4	10	24	36
Faba beans, peanuts, mungbeans, maize varieties with CLEARFIELD Technology ONLY : -Pacific Hycorn 62IT -Pacific Hycorn 53IT -Pioneer 3395IR; wheat varieties with CLEARFIELD Technology only.	Wheat* (except for wheat varieties with CLEARFIELD Technology ONLY), barley*, lucerne*, chickpea	Sorghum ⁼ , maize ⁼ (except for maize varieties with CLEARFIELD Technology ONLY), dryland cotton [▲]	Irrigated cotton, sunflower	Any other crops

* The following additional requirements apply if it is intended to plant wheat (except for varieties with CLEARFIELD Technology), barley or lucerne during the next winter season.

DO NOT apply FLAME in fallow later than the end of December.

DO NOT apply FLAME in areas where rainfall from spraying to sowing of cereals is expected to be below 200 mm.

⁼ The following additional requirements apply if it is intended to plant sorghum or maize (except for varieties with CLEARFIELD Technology) during the next summer season.

DO NOT apply FLAME in areas where rainfall from spraying to sowing of sorghum or maize is expected to be below 500 mm.

[▲] The following additional requirements apply if it is intended to plant dryland cotton during the next summer season.

DO NOT apply FLAME in areas where rainfall from spraying to sowing of dryland cotton is expected to be below 550 mm.

Following use in sugarcane and peanuts:-

MONTHS AFTER APPLICATION						
0	4	5	10	18	24	36
Mung beans, Peanuts, soybeans, maize varieties with CLEARFIELD Technology ONLY : -Pacific Hycorn 62IT -Pacific Hycorn 53IT -Pioneer 3395IR	Chick peas, lucerne*, barley*, wheat* (except for wheat varieties with CLEARFIELD Technology ONLY)	Lupins, pasture legumes	Maize ⁼ (except varieties with CLEARFIELD Technology ONLY), dryland cotton [▲]	Sorghum ⁼	Irrigated cotton, sunflower	Any other crops

* The following additional requirements apply if it is intended to plant wheat (except for varieties with CLEARFIELD Technology), barley or lucerne during the next winter season.

DO NOT apply FLAME in areas where rainfall from spraying to sowing of cereals is expected to be below 200 mm.

⁼ The following additional requirements apply if it is intended to plant sorghum or maize (except for varieties with CLEARFIELD Technology), during the next summer season.

DO NOT apply FLAME in areas where rainfall from spraying to sowing of sorghum or maize is expected to be below 500 mm.

[▲] The following additional requirements apply if it is intended to plant dryland cotton during the next summer season.

DO NOT apply FLAME in areas where rainfall from spraying to sowing of dryland cotton is expected to be below 550 mm.

RE-ENTRY PERIOD FOR FLAME PLUS STOMP Xtra

When tank-mixing FLAME with STOMP Xtra, DO NOT allow entry into treated areas for 12 hours. When prior entry is necessary, wear 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 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 spray within 50 m of wetlands or waterways.

CROP SAFETY

This product may, in some circumstances, lead to transient crop yellowing and temporary slowing of growth in sugarcane but plants soon recover and yield is unaffected. This effect may be more pronounced when the product is used under conditions where soil moisture is high within 2 days following application and on light/sandy soil. Contact Crop Care for advice on variety susceptibility before using this product.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

DO NOT contaminate streams, rivers or waterways with the chemical or used containers.

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+ Other trademarks,

TM¹ Trademark of Victorian Chemicals Company Pty Ltd

TM² Trademark of GULLF AG Pty Ltd.



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