

Product Name: NUFARM BARRAGE HERBICIDE  
APVMA Approval No: 59557/141086



Label Name:	NUFARM BARRAGE HERBICIDE
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Signal Headings:	CAUTION KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
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Constituent Statements:	132 g/kg HEXAZINONE 468 g/kg DIURON
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Mode of Action:	GROUP 5 HERBICIDE
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Statement of Claims:	For the control of a wide range of annual and perennial grasses, broadleaf weeds and vines in established sugar cane.
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Net Contents:	2 - 1000 kg, 10 kg (5 x 2 kg measure packs - which it is illegal to sell separately) NOT TO BE SOLD SEPARATELY BEFORE USE READ ALL DIRECTIONS ON THE OUTER PACK AND LABEL LEAFLET
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Restrains:	This section contains file attachment.
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Directions for Use:	This section contains file attachment.
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Other Limitations:	
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Withholding Periods:	NOT REQUIRED WHEN USED AS DIRECTED.
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Trade Advice:	
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<p>General Instructions:</p>	<p><b>GENERAL INSTRUCTIONS</b></p> <p>Nufarm Barrage is a soil residual, broad spectrum, general herbicide for control of a wide range of annual and perennial grasses, broadleaf weeds and vines. Best results are achieved if Nufarm Barrage is applied just before weed growth occurs. For boom application, well established weeds should first be removed by mechanical or other means. For best results soil should be well prepared as free as possible from trash and clods. Apply to moist soil. Results vary with soil type and environmental conditions. Effects are slow to appear and may not become apparent until sufficient moisture (12-25 mm on moist soils, 25-50 mm on dry soils) in the form of rainfall or irrigation occurs after treatment to carry the product into the root zone of the germinating weeds. Best results are obtained if rainfall or irrigation occurs within 4-10 days after application.</p> <p>With irrigation, thoroughly wet-up entire treated area, however, care should be taken not to over-water and cause run-off. All rates of Nufarm Barrage are expressed as overall rates. Use proportionately less, ie, use only half of the overall rate when treating one half of the area. Temporary chlorosis of lower leaves may occur. To minimise this injury use low directed spray application. Tolerance of cane variety should be determined before treating large areas.</p> <p><b>EQUIPMENT AND MIXING</b></p> <p>This product mixes readily with water, no pre-mixing is required. Fill the spray tank at least half full with water. Weigh the correct amount of Nufarm Barrage Herbicide. To prevent nozzle blockage, strainer and nozzle screens should be 50 mesh or coarser. Add Nufarm Barrage to the spray vat SLOWLY and STEADILY with continuous agitation. DO NOT DUMP all required product into vat at once. Continuous agitation in the spray tank is required to keep the material in suspension. Mechanical agitation is preferred, although hydraulic agitation is satisfactory if pump has sufficient volume to return at least 5% of the tank capacity per minute when the sprayer is in operation. When by-pass or return line is used, it should terminate at the bottom of the tank to minimise foaming. DO NOT USE AIR AGITATION. When the product has been thoroughly dispersed, add surfactant / wetting agent if required. Agitate vigorously from the bottom if allowed to stand.</p> <p><b>Fixed Boom Power Sprayer</b></p> <p>Spray booms must be shut off while starting, turning, slowing or stopping, as overdose may result in injury to the crop. Use sufficient water (400-600 L/ha of area actually sprayed) to provide thorough and uniform coverage. Use sufficient pressure to allow to penetrate, 250-350 kPa is the pressure range generally used. Higher pressures should be avoided to prevent spray drift on to non-target areas.</p> <p><b>Use of surfactant or wetting agent</b></p> <p>If weed growth is established and cannot be removed by other means the use of non-ionic surfactant may increase wetting of leaves and increase the knockdown effectiveness of the treatment. Use BS1000 at 250-500 mL/100 L of final spray volume (0.25%-0.5% volume/volume). For perennial weeds and grasses use the higher rate of surfactant. Best results are obtained where weeds and grasses are growing under conditions of high humidity and temperatures higher than 21°C.</p>
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<p>Resistance Warning:</p>	<p>Nufarm Barrage Herbicide (Nufarm Barrage) is a member of the triazinone and urea group of herbicides. Nufarm Barrage has the inhibitors of photosynthesis at photosystem II mode of action. For weed resistance management Nufarm Barrage is a group 5 herbicide. Some naturally-occurring weed biotypes resistant to Nufarm Barrage and other Group 5 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 Nufarm Barrage or other Group 5 herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Nufarm Australia Limited accepts no liability for any losses that may result from the failure of Nufarm Barrage to control resistant weeds. Strategies to minimise the risk of herbicide resistance are available. Consult your farm chemical supplier, consultant, local Department of Agriculture or Primary Industries, or local Nufarm representative.</p>
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Precautions:	
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Protections:	<p>PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS DO NOT apply or drain or flush equipment on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots. 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 drift of dry powder onto desirable plants. DO NOT use on lawns, walkways, driveways, tennis courts or similar areas.</p> <p>PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT DO NOT contaminate streams, rivers or waterways with the chemical or used containers.</p>
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Storage and Disposal:	<p>Store in the closed, original container in a dry, cool well-ventilated area, out of direct sunlight. Single rinse or shake remainder into spray tank. DO NOT dispose of undiluted chemicals on-site. 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 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.</p>
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Safety Directions:	<p>Will irritate the eyes. Avoid contact with eyes. When opening the container and preparing the spray wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and elbow length PVC gloves. Wash hands after use. After each day's use wash gloves and contaminated clothing.</p>
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First Aid Instructions:	<p>If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26. If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.</p>
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First Aid Warnings:	
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## RESTRAINTS

- DO NOT** spray over sugar cane or allow excessive spray contact as crop injury may result.
- DO NOT** re-plant treated areas to any other crop within two years after last application as injury to subsequent crop may result.
- DO NOT** use on light sandy soils as crop injury may result.
- DO NOT** use in water-logged areas.
- DO NOT** use in young plant cane.
- DO NOT** use equipment or spraying methods which cause spray or spray drift to contact the growing point of sugar cane.
- DO NOT** apply if greater than 50 mm rainfall is expected within 3 days of application.
- DO NOT** irrigate within 3 days of application.
- DO NOT** apply to fields where the slope exceeds 3%.
- DO NOT** spot spray more than 5% of total farm areas.
- DO NOT** apply more than once per calendar year.

## SPRAY DRIFT RESTRAINTS

Specific definitions for terms used in this section of the label can be found at [www.apvma.gov.au/spraydrift](http://www.apvma.gov.au/spraydrift)

- DO NOT** apply by aircraft.
- DO NOT** allow bystanders to come into contact with the spray cloud.
- DO NOT** apply in a manner that may cause an unacceptable impact to native vegetation, agricultural crops, landscaped gardens and aquaculture production, or cause contamination of plant or livestock commodities, outside the application site from spray drift. The buffer zones in the relevant buffer zone table/s below provide guidance but may not be sufficient in all situations. Wherever possible, correctly use application equipment designed to reduce spray drift and apply when the wind direction is away from these sensitive areas.
- DO NOT** apply unless the wind speed is between 3 and 20 kilometres per hour at the application site during the time of application.
- DO NOT** apply if there are hazardous surface temperature inversion conditions present at the application site during the time of application. Surface temperature inversion conditions exist most evenings one to two hours before sunset and persist until one to two hours after sunrise.
- DO NOT** apply by a boom sprayer unless the following requirements are met:
  - spray droplets not smaller than a COARSE spray droplet size category
  - minimum distances between the application site and downwind sensitive areas (see 'Mandatory buffer zones' section of the following table titled 'Buffer zones for boom sprayers') are observed

### Buffer Zones for Boom Sprayers – Nufarm Barrage Herbicide alone

Application rate	Mandatory buffer zones	
	Natural Aquatic Areas	Vegetation Areas
Up to 4 kg/ha	100m	200m

### Buffer Zones for Boom Sprayers – Nufarm Barrage Herbicide – Paraquat mixtures (Nufarm Shirquat® Herbicide)

Application rate	Mandatory buffer zones	
	Natural Aquatic Areas	Vegetation Areas
Up to 900 g/ha	25m	50m

**DIRECTIONS FOR USE**

<b>CROP</b>	<b>WEEDS CONTROLLED</b>	<b>STATE</b>	<b>RATE</b>	<b>CRITICAL COMMENT</b>	
Sugar Cane	Weed seedlings of: <i>Amaranthus</i> spp. Awnless barnyard grass Barnyard grass Bluetop (Billygoat weed) Coast button grass Cobbler's pegs Common Sida Crowsfoot grass Green Summer grass Guinea grass Phyllanthus Pigweed Rattlepod <i>Setaria</i> spp. Square weed Summer grass Thickhead	NSW, Qld only	4 kg/ha	<p><b>Ratoon cane (after harvesting):</b>  <b>DO NOT apply in the Wet Tropics</b>  <b>DO NOT apply in the Burdekin between 1 December and 29 February</b>  <b>DO NOT apply in Mackay/Whitsunday between 1 November and 31 May</b>  <b>DO NOT apply in Mary-Burnett between 1 November and 31 May</b>  <b>DO NOT apply in NSW between 1 November and 30 April</b></p> <p>Apply after harvest and before crop and weed emergence. If applying as a band treatment avoid throwing excessive untreated soil onto the treated band when inter-row cultivating. <b>DO NOT</b> apply more than 4 kg/ha during the season.</p>	
	Weeds as above and including: Bellvine Common morning glory Cupid's flower (Star of Bethlehem) Common Sensitive plant Passion fruit vine Pink convolvulus Red convolvulus			3 - 4 kg/ha	<p><b>Ratoon and plant cane (Post-emergent):</b>  <b>APPLY ONLY as a directed band spray over a maximum of 60% of the crop area</b>  <b>DO NOT apply in the Wet Tropics</b>  <b>DO NOT apply in Burdekin between 1 January and 29 February</b>  <b>DO NOT apply in Mackay/Whitsunday between 1 November and 31 May</b>  <b>DO NOT apply in Mary-Burnett between 1 November and 29 February</b>  <b>DO NOT apply in NSW between 1 November and 31 March</b></p>
	Giant Sensitive plant Itch grass Wild rose Centro Pinkburr Stinking passion flower	Qld only			<p>Apply as a directed spray, full width between rows or as a band treatment at last cultivation or close-in to weed free surface. If emerged annual weeds (15 cm or less in height) are present ensure thorough spray coverage is achieved. Use as a directed spray to minimise spray contact with cane plant as injury to cane may result.</p> <p><b>DO NOT</b> use any more than 4 kg/ha during the season. Treated areas may be replanted to sugar cane one year after last application.</p> <p><b>DO NOT</b> treat at out-of-hand stage, ratoon blocks that are to be replanted soon after harvest. Some itch grass plants germinating from a depth unprotected by the chemical may not be controlled.</p>
	Guinea grass	NSW, Qld only		1 kg/100 L	<p><b>SPOT SPRAY ONLY</b> - Spray when Guinea grass stools are at least 15 cm high for best results. Wet thoroughly to point of run-off. Avoid contact with adjacent cane as crop injury may result.</p>

CROP	WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE	CRITICAL COMMENTS
Sugar cane	<i>Amaranthus</i> spp. Arsenic Weed Awnless Barnyard Grass Barnyard Grass Bluetop (Billygoat Weed) Calopo Vine Centro Coast Button Grass Cobbler's Pegs Common Morning-glory Common Sensitive Plant Common Sida Crowsfoot Grass Cupid's Flower (Star of Bethlehem) Giant Sensitive Plant Green Summer Grass Guinea Grass Itch Grass Milkweed Passion Fruit Vine Phyllanthus Pigweed Pink Burr Pink Convolvulus Rattlepod Red Convolvulus <i>Setaria</i> spp. Siratro Square Weed Stinking Passion Flower Summer Grass Thickhead Wild Rose	Up to 5 cm high	Qld, NSW, WA, NT only	530 g/ha + Nufarm Shirquat 1.2-1.6 L/ha	Apply only as directed spray on plant and ratoon cane using an Irvine spray boom (or similar equipment). Complete spray coverage on the weed is essential. For weeds up to 5 cm high, use a minimum spray volume of 250 L/ha
		Up to 10 cm high		900 g/ha + Nufarm Shirquat 1.2 - 1.6 L/ha	For weeds up to 10 cm high use a minimum spray volume of 350 L/ha. Use the higher rate of Nufarm Shirquat for dense and more mature weeds. Always add BS1000 at 100 mL/100 L of final spray volume (0.1% volume/volume)

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