

**WARNING****KEEP OUT OF REACH OF CHILDREN**

# Barricade®

## Herbicide

The Syngenta logo is displayed in white text on a dark green background. It features the word "syngenta" in a lowercase, sans-serif font, with a registered trademark symbol (®) to the upper right.

**Active Ingredient: BARRICADE® contains 476.2 g/L PRODIAMINE in the form of a suspension concentrate**

<b>GROUP</b>	<b>3</b>	<b>HERBICIDE</b>
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For pre-emergent control of weeds in Established Turf, Garden beds and Nursery pots as per the Directions for Use

**Net Contents: 1, 5 or 10 L**

Approved pursuant to the HSNO Act 1996, Approval Code HSR101240  
See [www.epa.govt.nz](http://www.epa.govt.nz) for approval controls.

**Syngenta Crop Protection Limited**  
Level 4, 60 Parnell Road, Parnell, Auckland 1052

**Item number**  
**Date code**

®

**PLEASE READ THE LABEL COMPLETELY BEFORE USE**  
**This product MUST NOT be used for any purpose or in any manner**  
**contrary to the controls of this approval.**

**Any person mixing, loading or handling this product MUST be a qualified loader or under the**  
**guidance of a qualified loader.**

**Any person applying this product must be a qualified contractor/person or under the**  
**guidance of a qualified contractor/person.**



#### **GHS Classifications**

Specific target organ toxicity (repeated exposure) Category 2

Hazardous to the aquatic environment acute Category 1

Hazardous to the aquatic environment chronic Category 1

Hazardous to soil organisms

#### **WARNING**

May cause damage to the liver from prolonged or repeated exposure.

Very toxic to aquatic life with long lasting effects.

Very toxic to the soil environment.

#### **PRECAUTIONS**

DO NOT eat, drink or smoke while using.

DO NOT breathe spray. Get medical advice if you feel unwell.

Full personal protective equipment, including respirator, must be worn by operators during mixing, loading and application by ground boom.

Personal protective equipment must be worn by operators during mixing, loading and application by backpack.

Remove protective clothing and wash hands and face thoroughly before meals and after work.

Apply with well maintained and calibrated spray equipment.

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

Records of use must be kept as per Clause 48 of the Hazardous Property Controls Notice 2017.

Application and storage should be as described in the Management of Agrichemicals NZS8409.

DO NOT carry on a passenger service vehicle.

Avoid contamination of any water supply with chemical or empty container. DO NOT apply into or onto water.

**Container disposal:** Ensure the container is empty. Triple rinse the container and add rinsate to the spray tank. Recycle empty container through Agrecovery (0800 247 326, [www.agrecovery.co.nz](http://www.agrecovery.co.nz)). Otherwise crush and bury in a suitable landfill. DO NOT reuse this container for any other purpose.

**Product disposal:** Dispose of this product only by using according to the label, at an approved landfill or other approved facility. For additional information refer to the EPA Notice: Hazardous Substances (Disposal) Notice (2017).

#### **FIRST AID**

If SWALLOWED, DO NOT induce vomiting. Rinse Mouth.

If on SKIN, remove contaminated clothing and flush skin and hair with running water. DO NOT scrub the skin.

If splashed in the EYES, wash out immediately with water. Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists get medical advice/attention.

If INHALED, move the victim to fresh air. Begin artificial respiration if breathing has stopped. Use mouth to nose rather than mouth to mouth. Obtain medical attention. Take to hospital without delay.

For advice, contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor. If medical advice is needed, have product container or label at hand. Get medical advice/attention if you feel unwell.

#### **SPILLAGE**

Collect spillage. Wear suitable protective clothing including face shield, chemical resistant gloves and boots. Prevent the product or spilled material from entering water bodies. Absorb liquid spills with inert material such as earth or sand and place in waste containers. Wash area with water and absorb with further inert material. Dispose of safely.

## GENERAL INFORMATION

BARRICADE® is a selective pre-emergent herbicide that provides residual control of weeds in established turf, garden beds and potted plants. BARRICADE® controls susceptible weeds by interfering with cell division in the root tips of newly germinated weeds.

### *Turf*

BARRICADE® is safe to use on established turf species listed in the Directions for Use. Weed control in turf is most effective when BARRICADE® is activated by at least 6 mm of rainfall or irrigation before weed seeds germinate and within 7 days after application.

BARRICADE® is safe to use on existing turf swards where Bahia Grass is established, but will control newly germinating seeds of Bahia Grass after application.

### *Garden Beds under Mulch and Potted Plants*

Weed control in garden beds and potted plants is most effective when BARRICADE® is activated by irrigation immediately post-application and before weed seeds germinate.

## RESISTANCE MANAGEMENT

GROUP	3	HERBICIDE
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BARRICADE® Herbicide contains a member of the dinitroaniline group of herbicides, it contains a Group 3 herbicide. Resistance to this herbicide could develop from repeated use. To minimise this risk use strictly in accordance with label instructions and resistance management strategies. Since the occurrence of resistant weeds is difficult to detect prior to use, Syngenta Crop Protection Limited accepts no liability for any losses that may result from the failure of BARRICADE® to control resistant weeds. Consult your local supplier, consultant, a Syngenta representative or New Zealand Plant Protection Society (Inc), [www.resistance.nzpps.org](http://www.resistance.nzpps.org) for alternate modes of action and the details of resistance management strategies for the crops listed on the label.

## INTEGRATED PEST MANAGEMENT

The possible effects of BARRICADE® on integrated pest management (IPM) strategies in the turf industry have not been studied at the proposed rates. However, based on available information, it cannot be ruled out that BARRICADE® may have an adverse effect on non-target beneficial turfgrass invertebrates where such IPM is practised.

## DIRECTIONS FOR USE

### **Use Warnings**

DO NOT use on or around food crops

DO NOT blend BARRICADE® onto dry fertiliser or any other granular material

DO NOT apply to turf under stress

DO NOT apply to golf course putting greens or bowling greens

DO NOT apply to newly seeded, sodded or sprigged turf. Delay application until turf is at 100% cover and root system is developed beyond a 3 cm depth

DO NOT apply to garden beds over the top of mulch

DO NOT apply to recently re-potted or newly potted seeds, cuttings, divisions or plants. Allow a period of establishment within which a substantial root system can be developed

DO NOT apply if heavy rain has been forecast within 48 hours

DO NOT apply to waterlogged soil

DO NOT irrigate to the point of run-off within 3 days of application

DO NOT apply to turf which is not well established

Situation	Weeds	Rate (L/ha)	Critical Comments
<b>Established turf:</b> <b>Bahia Grass</b> <i>(Paspalum notatum)</i> , <b>Buffalo Grass</b> <i>(Stenotaphrum secundatum)</i> , <b>Carpet Grass</b> <i>(Axonopus affinis)</i> , <i>Axonopus compressus)</i> , <b>Common Couch</b> <i>(Cynodon dactylon)</i> , <b>Hybrid Couch</b> <i>(Cynodon dactylon x Cynodon transvaalensis)</i> , <b>Kikuyu</b> <i>(Pennisetum clandestinum)</i> , <b>Qld Blue Couch</b> <i>(Digitaria didactyla)</i> , <b>Seashore Paspalum</b> <i>(Paspalum vaginatum)</i> , <b>Zoysia</b> <i>(Zoysia japonica)</i> , <i>Zoysia matrella)</i>	Barnyard Grass <i>(Echinochloa crus-galli)</i> , Crab Grass <i>(Digitaria ciliaris)</i> , Rat's Tail <i>(Sporobolus africanus)</i> , Vulpia Hair Grass <i>(Vulpia myuros)</i> , Summer Grass <i>(Digitaria sanguinalis)</i> Crowsfoot Grass <i>(Eleusine indica)</i>	1 to 3	Apply prior to weed emergence.  For residual control of up to 6 month use higher rates.  A repeat application, 3 to 4 months after initial application, may be needed if lower rates are used in high weed pressure or extended germination periods due to environmental conditions.
	African Lovegrass <i>(Eragrostis curvula)</i> , Bahia Grass <i>(Paspalum notatum)</i> , Kentucky Blue Grass <i>(Poa patensis)</i>	2 to 3	Refer to Application section for detailed information.  Wash in with at least 6 mm rain or irrigation within 7 days of application
	Paspalum <i>(Paspalum dilatatum)</i>	2 to 4	
	Winter Grass <i>(Poa annua)</i>	1 to 4	Apply prior to weed emergence.  For residual control of up to 6 month use higher rates.  A repeat application, 3 to 4 months after initial application, may be needed if lower rates are used in high weed pressure or extended germination periods due to environmental conditions.  In areas where post-emergent herbicides applications for <i>Poa annua</i> control may pose a high risk of tracking or off site damage (ie greens surrounds, slopes on high side of greens, etc) use the 4 L/ha rate to reduce potential for post emergent control in these areas  Refer to Application section for detailed information.  Wash in with at least 6 mm rain or irrigation within 7 days of application

Situation	Weeds	Rate (L/ha)	Critical Comments
<b>Garden beds (under mulch) and potted plants in nurseries, public open spaces and residential or commercial gardens</b>	<b>Various garden and nursery weeds</b> including: African Lovegrass ( <i>Eragrostis curvula</i> ), Barnyard Grass ( <i>Echinochloa crus-galli</i> ), Chickweed ( <i>Ceratium glomeratum</i> ), Crab Grass ( <i>Digitaria ciliaris</i> ), Crowsfoot Grass ( <i>Eleusine indica</i> ), Oxalis ( <i>Oxalis corniculata</i> ), Cudweed ( <i>Gnaphalium</i> spp), Paspalum ( <i>Paspalum</i> spp), Prairie Grass ( <i>Bromus willdenowii</i> ), Vulpia Hair Grass ( <i>Vulpia myuros</i> ), Ryegrass ( <i>Lolium perenne</i> ), Sow Thistle ( <i>Sonchus</i> spp), Summer Grass ( <i>Digitaria ciliaris</i> ), Willowherb ( <i>Epilobium ciliatum</i> ), Winter Grass ( <i>Poa annua</i> )	4 to 8	Apply prior to weed emergence for residual control of up to 4 months in potted plants and 6 months in garden beds under mulch.  Use higher rates in situations of high weed pressures or for difficult to control weeds.  Refer to Application section for detailed information.  When used on garden beds or potted plants wash in immediately with minimum 3 mm rain or irrigation

### EPA RESTRICTIONS

The maximum application rate of BARRICADE® is 1.9 kg ai/ha when using ground-based boom equipment on turf or 3.84 kg ai/ha when using handheld equipment. BARRICADE® must NOT be applied to the same area more than twice in any 365 day period. A minimum interval at least 90 full days must be observed between applications.

### BUFFER ZONES

BARRICADE® must not be applied within 50 m of a downwind waterbody or non-target vegetation.

### SPRAY DRIFT

Take all reasonable steps to ensure that BARRICADE® does NOT cause any adverse effects to the environment beyond the application area.

### RESTRICTED ENTRY INTERVAL (REI)

The person in charge of the application area shall ensure that no person enters a crop treated with BARRICADE® within the REI period specified below, unless wearing appropriate personal protective equipment (PPE). Refer to Worksafe for additional guidance on REIs and appropriate PPE <https://www.worksafe.govt.nz/topic-and-industry/hazardous-substances/regulations/restricted-entry-intervals-for-pesticides/>

Crops	Restricted Entry Interval
Turf	13 days

**MIXING**

Add the required quantity of BARRICADE® directly to a spray tank containing 2/3 of the required spray volume. Add the rest of the water and ensure the mix is thoroughly agitated before application.

**APPLICATION**

BARRICADE® must be applied by ground-based methods only. DO NOT apply with aircraft or through any type of irrigation equipment.

USE ONLY nozzles that the nozzles' manufacturer has rated to deliver a COARSE, a VERY COARSE or an EXTREMELY COARSE droplet size category as referenced to ASABE S572 or BCPC.

DO NOT apply when wind speed is less than 3 or more than 20 kilometres per hour as measured at the application site.

DO NOT apply during surface temperature inversion conditions at the application site.

DO NOT apply with a nozzle height greater than 50 cm above the ground.

***Turf***

Apply prior to weed emergence a general guide is early spring (summer weeds) or late summer to early autumn (*Poa annua*).

Ensure product placement as close to soil surface as possible. Total application volume should not be lower than 500 L/ha. Use extremely coarse droplets eg Air Induction 08 nozzles, use strainers with no less than a 50-mesh rating. Wash in with at least 6 mm rain or irrigation within 7 days of application.

Spray nozzles should be uniformly spaced and of the same size, and should provide accurate and uniform application. To ensure accuracy, calibrate sprayer before use and recalibrate frequently. Observe sprayer nozzles frequently during the spraying operation to ensure that the spray pattern is uniform. Avoid overlapping of spray runs. Ensure that boom height for broadcast application does not exceed 50 cm above the leaf blades of the turf. Avoid application under conditions when uniform coverage cannot be obtained or when spray drift may occur.

***Garden Beds and Potted Plants***

DO NOT apply over the top of existing mulch.

Apply prior to weed emergence. Ensure product placement as close to soil surface as possible. Total application volume should not be lower than 500 L/ha. For best results use extremely coarse droplets eg air induction 08 nozzles, use strainers with no less than a 50-mesh rating. When used on garden beds or potted plants wash in immediately with minimum 3 mm rain or irrigation. Consideration must be given to the impacts of foliage and canopy densities on placement of herbicide in the soil. Where canopy densities may pose a problem, use higher total application volumes and higher wash in volumes.

**COMPATABILITY**

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

**REPLANTING INTERVAL*****Turf***

DO NOT replant any crop, ornamentals or overseed with cool season grasses for winter cover to treated areas for a period of 6 months after application.

***Garden Beds and Nursery Pots***

DO NOT plant seeds in treated soil for 6 months after application.

**WITHHOLDING PERIOD**

**DO NOT GRAZE TREATED TURF/LAWN OR FEED TURF/LAWN CLIPPINGS FROM ANY TREATED AREA TO POULTRY OR LIVESTOCK**

**STORAGE**

Store in the closed, original container in a cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight. See Safety Data Sheet for additional storage information. Stores containing quantities of 100 L or more require signage and secondary containment.

**SAFETY DATA SHEET**

If additional hazard information is required refer to the Safety Data Sheet. For a copy visit our website at [www.syngenta.co.nz](http://www.syngenta.co.nz).

**DISCLAIMER**

This product complies with the specifications in its statutory registration. Implied terms and warranties are excluded. Syngenta's liability for breach of the express or any non-excludable implied warranty is limited to

product replacement or purchase price refund. The purchaser must determine suitability for intended purpose and take all proper precautions in the handling, storage and use of the product including those on the label and/or safety data sheet failing which Syngenta shall have no liability.

Product names marked ® or ™, the ALLIANCE FRAME  
the SYNGENTA Logo and the PURPOSE ICON  
are Trademarks of a Syngenta Group Company



Distributed by Syngenta Crop Protection Limited, Level 4, 60 Parnell Road, Parnell, Auckland 1052  
Phone 0800 333 336

Batch No	
Date of Manufacture	

BARCODE
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**UN 3082**  
**ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.**  
**(prodiamine) MARINE POLLUTANT**  
**PACKING GROUP III, HAZCHEM 3Z**  
**CONTAIN SPILLAGE**



**In a transport emergency dial 111, Police or Fire Brigade.**  
**For specialist advice in an emergency only, call 0800 734 607 (24 hours)**