POISON
KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

Barracuda®

SELECTIVE HERBICIDE

Active Constituents:	**230 g/L BROMOXYNIL present as the octanoate**
	21 g/L DIFLUFENICAN
Solvents:	**437 g/L LIQUID HYDROCARBONS**
	150 g/L N-METHYL-2-PYRROLIDONE

GROUP	C	F	HERBICIDE

For the control of certain broadleaf weeds in winter cereals and pasture as specified in the DIRECTIONS FOR USE table

GENERAL INSTRUCTIONS

- This product is a post-emergence contact herbicide which may provide residual control of wild radish up to 4 weeks after application.
- Apply Barracuda Selective Herbicide immediately after mixing. Do not allow to stand in the spray tank overnight.
- Optimum results will be obtained if good soil moisture exists at and after application and weeds are not stressed.
- Some pre-emergence herbicides, such as atrazine, can cause stress to certain crops resulting in an increase in crop damage when using this product. Crops which are particularly sensitive are lucerne and subterranean clover.

Resistant Weeds Warning

Barracuda Selective Herbicide is a member of the nitrile and nicotinanilide groups of herbicides. Barracuda is an inhibitor of photosynthesis at photosystem II and carotenoid biosynthesis. For weed resistance management, Barracuda is a Group **C, F** herbicide. Some naturally occurring weed biotypes resistant to Barracuda and other Group **C, F** 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 Barracuda or other Group **C, F** herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Bayer CropScience Pty Ltd accepts no liability for any losses that may result from the failure of Barracuda to control resistant weeds.

Temperature warning

Do not apply Barracuda if frosts are imminent. Frost causes stress on crops and weeds and could result in increased crop effects and/or decreased weed control. To ensure good results Barracuda should only be applied once the weeds and crop are no longer under stress from the frost conditions.
Avoid application when maximum daily temperatures above 20°C occur, or are likely to occur for a few days after application, as increased crop damage may result.

CROP TOLERANCE

Cereals

After application some transient crop yellowing may occur. This usually appears as yellow or white banding on leaves. Provided the crop is not under stress from pre-emergent herbicide, root disease, insect damage, frost, dry or excessively moist conditions, the development of the crop and subsequent growth will be unaffected.

Lucerne

Warning

The tolerance of lucerne varieties to Barracuda can vary with rate of application, soil type, crop health, stage of growth and degree of moisture and temperature stress. Barracuda may result in transient crop yellowing and suppression of growth with a resultant initial reduction in dry matter. For this reason we recommend application prior to the 8 trifoliate leaf stage. However, under normal growing conditions subsequent growth and seed yield should not be affected. Crop damage may be increased if rates higher than 600 mL/ha are used and in areas where spray overlapping has occurred. Under normal growing conditions, the following lucerne varieties have shown acceptable levels of foliage tolerance to Barracuda applied at 600 mL/ha:
Hunter River, Nova and Dekalb 185.
Varieties not listed should be tested before using Barracuda over large areas. Consult your local Bayer CropScience representative for advice on specific varieties.

Subterranean clover

Warning

The tolerance of subterranean clover varieties to Barracuda can vary with rate of application, soil type, crop health, stage of growth and degree of moisture and temperature stress. Barracuda may result in transient crop yellowing and suppression of growth with an initial reduction in dry matter. For this reason we recommend application prior to the 8 trifoliate leaf stage. However, under normal growing conditions subsequent growth and seed yield should not be affected. Crop damage may be increased if rates higher than 600 mL/ha are used and in areas where spray overlapping has occurred.

Under normal growing conditions, the following varieties have shown acceptable levels of foliage tolerance to Barracuda applied at 600 mL/ha:
Daliak, Dalkeith, Denmark, Goulburn, Karridale, Leura, Mt. Barker, Nungarin, Rosedale, Seaton Park, Trikkala and Woogenellup.
The variety Junee has shown increased sensitivity to Barracuda so care should be taken if this variety is part of the pasture sward.

The effects of Barracuda on subterranean clover seed yield have been tested on the following varieties. Under normal growing conditions they show acceptable levels of tolerance to Barracuda applied at 600 mL/ha. However, higher rates may reduce seed yield under conditions of low weed pressure:
Denmark, Goulburn, Larissa, Nungarin, Seaton Park, Trikkala and Woogenellup.

Varieties not listed should be tested before using Barracuda over large areas. Consult your local Bayer CropScience representative for advice on specific varieties.

Other Clovers

Warning

The tolerance of clover varieties to Barracuda can vary with rate of application, soil type, crop health, stage of growth and degree of moisture and temperature stress. Barracuda may result in transient crop yellowing and suppression of growth with a resultant initial reduction in dry matter. For this reason we recommend application prior to the 8 trifoliate leaf stage. However, under normal growing conditions subsequent growth and seed yield should not be affected. Crop damage may be increased if rates higher than 600 mL/ha are used and in areas where spray overlapping has occurred. The effect on seed yield of other clovers has not been determined.

The following varieties of clover have shown increased sensitivity to Barracuda : Big Bee, Sacromonte (Berseem), Haifa (White), Zulu (Arrowleaf), Kyambro, Lupers and Maral (Persian).
Care should be exercised if these clovers are part of the pasture sward.
Varieties not listed should be tested before using Barracuda over large areas.
Consult your local Bayer CropScience representative for advice on specific varieties.

Subsequent Crops

To reduce effect on subsequent susceptible crops (e.g. canola), ensure thorough cultivation of soil prior to the sowing of these crops.

Mixing

To ensure even mixing, half fill the spray tank with clean water and add the required amount of product. Agitate thoroughly while carrying out spray operations. Reseal part-used container immediately after use.

Application

Boom Sprayer

A minimum of 50 L water /ha should be used, however, for optimum results water rates of 70-100 L/ha are recommended. Increase the water volume where weed infestation is heavy or the crop cover is dense. Complete coverage of weeds is essential. Higher water volumes (up to 100 L/ha) will ensure faster activity of the product on the weeds but may increase the symptoms of crop damage.

The following settings are examples which will ensure excellent coverage of exposed weeds:

Water Rate	50 L/ha	75 L/ha	75 L/ha
Nozzle	Hardi No. 10 or equivalent	Hardi No. 12 or equivalent	Hardi No. 14 or equivalent
Speed	10 km/h	10 km/h	12 km/h
Pressure	240 kPa (2.4 bar)	220 kPa (2.2 bar)	210 kPa (2.1 bar)

Controlled Droplet Application (CDA)

Insufficient information is available to recommend the application of this product by CDA.

Warning

The rubber components present in some spraying units may be affected by exposure to the solvents in Barracuda. To reduce this risk it is recommended that the spray unit be thoroughly washed with a boom cleaner and fresh water after use.

Aircraft

Insufficient information is available to recommend the application of this product by air.

Compatibility
The following herbicide products are physically compatible with Barracuda as two-way mixtures in the spray tank, but should only be used for the crops specified, and only when the crop is also specified on the label of the compatible product:
(See below for list of compatibile insecticides.)

Crop	Barracuda	Compatible Product
Wheat, triticale, cereal rye (including undersown)	Up to 900 mL/ha	Hoegrass® (barley also), Tristar® Advance (barley also), Puma® Progress (wild oats only, high rate), Wildcat® 110 EC (wild oats only, high rate)
Wheat, barley, triticale, cereal rye (including undersown)	All rates	Broadstrike®
Wheat, barley, triticale, cereal rye (not undersown)	Up to 600 mL/ha	Ally®, Glean®, MCPA LVE (500 g/L product) (up to 500 mL/ha only)
	All rates	2,4-D amine 500, Eclipse®, Cadence® (up to 115 g only), Lontrel®
Wheat only (not undersown)		Topik®
Established lucerne only	Up to 900 mL/ha	Simazine (500 g/L product) (up to 1.25 L/ha only) and simazine (500 g/L)/paraquat (200 g/L) mixture
Newly sown and established lucerne	Up to 900 mL/ha	Targa®, Fusilade®, 2,4-DB amine (500 g/L product)
and clover only	Up to 1.2 L/ha	Broadstrike®

When mixing Barracuda with other herbicides, crop yellowing may be enhanced. When mixing with Hoegrass, Puma Progress, Wildcat or Tristar Advance some reduction in the efficacy and speed of action of these products may occur. When mixing with Targa or Fusilade some reduction in the efficacy and speed of action of these products and Barracuda may occur. In tank-mixtures with Ally and Glean, rates of Barracuda higher than 600 mL/ha may cause significant crop damage. If the crop is stressed, the application of the herbicide tank-mixtures may cause yield reduction.
When mixing with Cadence a temporary wilting may be evident in some crops after application. The mixture of Barracuda and simazine should be applied during winter to lucerne which is not actively growing. This mixture may result in an increased crop effect but this can be reduced if the lucerne is grazed or cut before spraying.
DO NOT mix Barracuda with Verdict®. Growers should seek advice before spraying recently released cereal varieties.

This product may be mixed in the spray tank with one of the following insecticides according to the directions for the insecticide product: Chlorpyrifos (500 g/L product), Decis Options®, dimethoate, Dominex® 100EC, Fastac® Duo, Le-mat® 290 SL, Talstar® and Thiodan®.

Use the recommended rates for Barracuda and its tank-mix partner as well as the surfactant recommendation of the tank-mix partner. Read the label of the tank-mix partner before mixing and using the tank-mixture. If another herbicide is applied as a tank mix, observe the plantback restrictions on that label.

Warning
DO NOT use crop oils with Barracuda or Barracuda tank-mixtures in cereals.

As formulations of other manufacturers' products are beyond the control of Bayer CropScience, all mixtures should be tested prior to mixing commercial quantities.

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. Wash sprayer thoroughly after use.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT
Dangerous to fish. DO NOT contaminate streams, rivers or waterways with the chemical or used containers.

STORAGE AND DISPOSAL
Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight.
20 L container only
Triple or preferably pressure rinse containers before disposal. Add rinsings 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.
110 L container only
If tamper evident seals are broken prior to initial use then the integrity of the contents cannot be assured. Empty container by pumping through dry-break connection system. Do not attempt to breach the valve system or the filling point, or contaminate the container with water or other products. Ensure that the coupler, pump, meter and hoses are disconnected, triple rinsed with clean water and drained after each use. When empty, or contents no longer required, return the container to the point of purchase. This container remains the property of Bayer CropScience Pty. Ltd.

SAFETY DIRECTIONS
Product is harmful if inhaled or swallowed. Will irritate eyes, nose, throat and skin. Avoid inhaling spray mist. When preparing spray wear elbow length PVC gloves and face-shield. If product in eyes, wash it out immediately with water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use wash gloves, face shield and contaminated clothing.

FIRST AID
If poisoning occurs contact a doctor or Poisons Information Centre (telephone 13 11 26). If swallowed, do NOT induce vomiting. Give a glass of water. If in eyes, wash out immediately with water.

MATERIAL SAFETY DATA SHEET
Additional information is listed in the Material Safety Data Sheet, which can be obtained from www.bayercropscience.com.au.

EXCLUSION OF LIABILITY
This product must be used strictly as directed, and in accordance with all instructions appearing on the label and in other reference material. So far as it is lawfully able to do so, Bayer CropScience Pty Ltd accepts no liability or responsibility for loss or damage arising from failure to follow such directions and instructions.

APVMA Approval No.: 53770/0309

FOR 24 HOUR SPECIALIST ADVICE
IN EMERGENCY ONLY
PHONE 1800 033 111

WEEDS LIST

WEED (Common name)	(Scientific name)
Amsinckia	*Amsinckia* spp.
Ball mustard	*Neslia paniculata*
Canola (rapeseed)	*Brassica napus*
Capeweed	*Arctotheca calendula*
Chamomile	*Matricaria matricarioides*
Charlock	*Sinapis arvensis*
Chickweed	*Stellaria media*
Cleavers	*Galium aparine*
Climbing buckwheat	*Fallopia convolvulus*
Common cotula (bird's eye)	*Cotula australis*
Common peppercress	*Lepidium africanum*
Common sowthistle (milk thistle)	*Sonchus oleraceus*
Corn gromwell	*Buglossoides arvense*
Crassula (stonecrop)	*Crassula* spp.
Deadnettle	*Lamium amplexicaule*
Dense-flower fumitory	*Fumaria densiflora*
Dock	*Rumex* spp.
Doublegee (spiny emex)	*Emex australis*
Fat hen	*Chenopodium album*
Field madder	*Sherardia arvensis*
Fireweed	*Senecio* spp.
Fumitory	*Fumaria* spp.
Hexham scent (King Island melilot)	*Melilotus indicus*
Horehound	*Marubium vulgare*
Lesser swinecress	*Coronopus didymus*
Long storksbill	*Erodium botrys*
Marshmallow	*Malva parviflora*
Mexican poppy	*Argemone ochroleuca*
Mintweed	*Salvia reflexa*

WEED (Common name)	(Scientific name)
Mouse-eared chickweed	*Cerastium glomeratum*
New Zealand spinach	*Tetragonia tetragonoides*
Ox-tongue	*Picris echioides*
Paterson's curse (Salvation Jane)	*Echium plantagineum*
Pheasants eye (adonis)	*Adonis dentatus*
Prickly lettuce	*Lactuca serriola*
Purple calandrinia (mountain sorrel)	*Calandrinia menziesii*
Rough poppy	*Papaver hybridum*
Saffron thistle	*Carthamus lanatus*
Scarlet pimpernel	*Anagallis arvensis*
Shepherd's purse	*Capsella bursa-pastoris*
Skeleton weed	*Chondrilla juncea*
Sorrel	*Rumex acetosella*
Speedwell	*Veronica* spp.
Spoon cudweed	*Stuartina muelleri*
Three-horned bedstraw	*Galium tricornutum*
Toad rush	*Juncus bufonius*
Tree hogweed	*Polygonum patulum*
Turnip weed	*Rapistrum rugosum*
Variegated thistle	*Silybum marianum*
Vetch	*Vicia sativa*
Volunteer field peas	*Pisum sativum*
Volunteer lupins	*Lupinus angustifolius*
Ward's weed	*Carrichtera annua*
Wild mustard	*Sisymbrium* spp.
Wild radish	*Raphanus raphanistrum*
Wild turnip	*Brassica tournefortii*
Wireweed	*Polygonum aviculare*

DIRECTIONS FOR USE

Restraints

DO NOT apply if crop or weeds are stressed due to dry or excessively moist conditions.
DO NOT apply to crops under stress due to disease or insect damage.
DO NOT apply to frost-affected crops or if frosts are imminent.
DO NOT apply if heavy rain is expected within 4 hours.
DO NOT apply with crop oils (cereals only).

CROP	WEEDS CONTROLLED	WEED STAGE	RATE/HA	STATE	CRITICAL COMMENTS
Wheat, barley, triticale, cereal rye (including undersown with clover and/or lucerne), and these **cover crops in vineyards.** **<u>Pasture</u>** Clover and/or lucerne-based pasture (newly sown or established) including **cover crops in vineyards.**	Wild radish	Up to 2 leaf stage and not more than 60 mm in diameter and where weed density is less than 50 plants/m^2	420 mL	WA only	**CROP STAGE:** ***Cereals*** 2 leaf to fully tillered (Zadoks Z12-29) Optimum results achieved when sprayed at 4-8 weeks post-sowing. **Warning:** Barracuda may cause transient crop yellowing of cereals. (Refer to "**Crop Tolerance"** section of **General Instructions**) ***Clover and Lucerne*** Application is recommended prior to the 8th trifoliate leaf stage. Application can be made from the 1st trifoliate leaf stage in Qld, NSW, ACT and Vic only. In other States applications prior to the 3 leaf stage may result in crop damage if seedlings are under stress and in sandy soils. DO NOT apply to annual medics. **Warning:** Barracuda may affect growth and seed set of some varieties of clover and lucerne. (Refer to "**Crop Tolerance**" section of **General Instructions**) **COVER CROPS IN VINEYARDS** **When using in vineyard situations, apply during vine dormancy only. Contact with vines must be avoided. Particular care should be taken if applied in late autumn or early spring, when vines may not be fully dormant.** **WEED STAGE** Apply from early post-emergence. **APPLICATION** Apply when weeds are actively growing. Ensure thorough coverage of weeds. Where crop or weed density is high, increase water volume. **CONTINUED OVERLEAF**
	Wild mustard, wild radish	Up to 4 leaf stage and not more than 120 mm in diameter	600 mL	All States	
		Up to 6 leaf stage and not more than 150 mm in diameter	900 mL		
		Up to 8 leaf stage and not more than 180 mm in diameter	1.2 L		
	Canola (rapeseed), charlock, turnip weed, wild turnip	Up to 2 leaf stage and not more than 60 mm in diameter	600 mL		
		Up to 4 leaf stage and not more than 120 mm in diameter	900 mL		
	Shepherd's purse	Up to 4 leaf stage and not more than 120 mm in diameter	1.2 L		
	Capeweed	Up to 4 leaf stage and not more than 120 mm in diameter	600 mL		
		Up to 6 leaf stage and not more than 150 mm in diameter	900 mL		
		Up to 8 leaf stage and not more than 180 mm in diameter	1.2 L		
	Corn gromwell	Up to 4 leaf stage	600 mL		
		Up to 6 leaf stage	900 mL		
	Climbing buckwheat	Up to 2 leaf stage	600 mL		
		Up to 4 leaf stage	900 mL		
		Up to 6 leaf stage	1.2 L		
	Deadnettle, Paterson's curse (Salvation Jane), rough poppy	Up to 2 leaf stage	600 mL		
		Up to 4 leaf stage	900 mL		
	Amsinckia				
	Doublegee (spiny emex)	Up to 2 leaf stage	600 mL	Qld, NSW, ACT, Vic, Tas, WA only	
		Up to 4 leaf stage	900 mL	All States	

CROP	WEEDS CONTROLLED	WEED STAGE	RATE/HA	STATE	CRITICAL COMMENTS
Wheat, barley, triticale, cereal rye (including undersown with clover and/or lucerne), and these **cover crops in vineyards.** **Pasture** Clover and/or lucerne-based pasture (newly sown or established) including **cover crops in vineyards.**	Chamomile, common peppercress, lesser swinecress, purple calandrinia (mountain sorrel), tree hogweed	Up to 4 leaf stage	1.3 L	All States	**CONTINUED FROM PREVIOUS PAGE** In most situations the rate specified for each weed size will give satisfactory control. However, under certain conditions such as: * high crop and weed density, * late season germinations, * abnormal weed growth (including early flowering); higher rates of product (up to the maximum rate of application specified for that weed) may be required. Barracuda will not effectively control: * regrowth of suppressed weeds, * transplanted weeds, * regrowth from rhizomes or roots, * weeds growing under stress from previous herbicide applications. * Radish plants beyond rosette stage. ***Wild Radish*** Effective residual activity of this product may be reduced where: * rates lower than 1.2 L/ha are used; * dry conditions prevail; * poor coverage of the soil surface is achieved * crop is grown in non-wetting sand; * soils have a high content of clay or organic matter. ***Volunteer Lupins*** In some situations, the higher rate of 1.2 L/ha may be required to effectively suppress volunteer lupins at the 4 leaf stage. # Barracuda will suppress seedling dock but will not suppress regrowth from transplanted roots.
	Fat hen, field madder, saffron thistle, variegated thistle		1.2 L		
	Ox-tongue, wireweed	Up to 2 leaf stage			
	Fireweed	Up to 4 leaf stage	600 mL	Qld, NSW, ACT, Vic, SA, WA, NT only	
	Common cotula (bird's eye), pheasants eye (adonis)	Up to 4 leaf stage	670 mL	SA only	
		Greater than 4 leaf stage	1.3 L		
Wheat, barley, triticale, cereal rye	Fumitory	2-6 leaf stage	420 mL + 200 mL terbutryn (500 g/L)	WA only	
Wheat, barley, triticale, cereal rye (including undersown with clover and/or lucerne), and these **cover crops in vineyards.** **Pasture** Clover and/or lucerne-based pasture (newly sown or established) including **cover crops in vineyards.**	**Suppression of the Following Weeds**				
	Dense-flower fumitory	Up to 2 leaf stage	900 mL	All States	
		Up to 4 leaf stage	1.2 L		
	Chickweed, common sowthistle (milk thistle), dock#, hexham scent (King Island melilot), prickly lettuce, scarlet pimpernel, skeleton weed, sorrel, speedwell, three-horned bedstraw, toad rush				
	Volunteer lupins		600 mL -1.2 L		
	Crassula (stonecrop)	Up to 5 leaf stage	600 mL		
	Long storksbill	Up to 4 leaf stage			
	Volunteer field peas	Up to 5 node stage	900 mL		
	Ward's weed	Up to 5 leaf stage	1.2 L		
	Vetch	Up to 2 leaf stage			
	Mouse-eared chickweed			NSW & ACT only	
	Mexican poppy			Qld only	
	Mintweed, spoon cudweed	Up to 4 leaf stage		NSW & ACT only	
	New Zealand spinach	Up to 2 leaf stage	900 mL	Qld only	
	Cleavers	Up to 1 whorl stage	1.2 L	SA only	
	Ball mustard	Up to 4 leaf stage			
	Horehound	Pre-emergence			
	Marshmallow	Up to 2 leaf stage			

CROP	WEED CONTROLLED	WEED STAGE	RATE/HA	STATE	CRITICAL COMMENTS
Wheat, barley, triticale, cereal rye	Wild radish	Up to the 4-leaf stage and not more than 120 mm in diameter	400 mL plus 200 mL MCPA LVE (500 g/L)	WA only	**Refer also to all Critical Comments for cereals above**. **DO NOT** use this tank-mix if cereals are undersown with lucerne or annual medics. **DO NOT** use this tank-mix in vineyards. <u>Crop Stage</u> Barracuda 400 mL + MCPA LVE 200 mL: Apply from 3-leaf to fully tillered (Zadok's Z13 to Z30). Barracuda 600 mL + MCPA LVE 200 mL: Apply from 3 leaf to fully tillered (Zadok's Z13 to Z30). Barracuda 600 mL + MCPA LVE 400 mL: Apply from 5 leaf stage to fully tillered (Zadok's Z15 to Z30). Optimum results are achieved when sprayed at 4-8 weeks post sowing. **Warning:** Barracuda may cause transient crop yellowing of cereals. (Refer to "**Crop Tolerance**" section of **General Instructions**) Observe instructions also on MCPA LVE product label.
		Up to the 6 leaf stage and not more than 150 mm in diameter	600 mL plus 200 mL MCPA LVE (500 g/L)	All States	
		Up to the 8 leaf stage and not more than 180 mm in diameter.	600 mL plus 400 mL MCPA LVE (500 g/L)		

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

WITHHOLDING PERIODS
Harvest: Cereals, Grapes – NOT REQUIRED WHEN USED AS DIRECTED
Grazing: Pasture, Cereals: DO NOT GRAZE OR CUT FOR STOCK FOOD WITHIN 14 DAYS AFTER APPLICATION.