# CAUTION

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

# TOUCHDOWN@ Herbicide

ACTIVE CONSTITUENT: 480 g/L GLYPHOSATE-TRIMESIUM



A non-selective foliar applied systemic herbicide for the control of a wide range of annual and perennial weeds as per directions for use table.

READ THE ATTACHED LEAFLET BEFORE USING THIS PRODUCT

**NET 110 LITRES** 

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

#### **Spills**

Wear protective equipment to prevent skin and eye contamination and inhalation of vapours. Contain - prevent contamination of drains and waterways. Use absorbent (soil or sand, inert material, vermiculite). Collect and seal in properly labelled drums for disposal. Wash area down with excess water.

#### STORAGE AND DISPOSAL

Store in a closed, original container in a well-ventilated area as cool as possible and away from children, animals, food, feedstuffs, seed and fertilisers. DO NOT store for prolonged periods in direct sunlight. Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

#### SAFETY DIRECTIONS

Harmful if inhaled or swallowed. Will irritate eyes and skin. Avoid contact with eyes and skin. Do not inhale spray mist.

WHEN MIXING AND USING

When preparing spray and using the prepared spray wear elbow-length PVC gloves and face shield.

AFTER USE

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 and face shield and contaminated clothing.

Refer to MSDS No. 41255.

#### **FIRST AID**

If poisoning occurs contact a doctor or Poisons Information Centre. If swallowed and if more than 15 minutes from a hospital, induce vomiting, preferably using Ipecac Syrup APF.

#### 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	SPECIALIST ADVICE IN			
Emergency Dial	EMERGENCY ONLY			
000	1800 033 111			
Police or Fire Brigade	ALL HOURS -AUSTRALIA WIDE			

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Crop Care Australasia Pty Ltc ACN 061 362 347 77 Tingira Street PINKENBA QLD 4008

NRA Approval No.: 39762/02

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## **DIRECTIONS FOR USE:**

ALL STATES (except for Sugar - Qld, NSW, WA only)

## **RESTRAINT:**

DO NOT apply if heavy rain (eg 4mm) is expected within 6 hours.

SITUATION	CRITICAL COMMENTS
GENERAL WEED CONTROL	For control of a wide range of grass and broadleaf weeds.
For general weed control in and around home	Rate: 10 mL per litre of water
gardens, industrial, commercial and public service	Ensure thorough coverage of weed foliage. DO NOT allow spray to contact foliage or green bark of
areas, parks and gardens, around farm buildings	desirable plants.
and other farm situations.	Apply under good growing conditions only to actively growing weeds.
NON-CULTIVATED LAND	For residual control of annual weeds 'Touchdown' can be tank mixed with 'Atradex' WG, 'Diurex' WG or
Industrial, commercial, domestic and public service	'Simagranz'.
areas.	See Compatibility Section.
FORESTS, ORCHARDS, VINES, PLANTATIONS AND NURSERIES	'Touchdown' can be used prior to the establishment of the trees and vines and amongst established trees and vines using a directed or shielded spray or wiper equipment.
	DO NOT allow spray or spray drift to contact green bark or stems, canes, laterals, suckers, pruned
	surfaces or fruit. Particular care is required to avoid spray contact with the trunks of avocado, banana,
	guava, kiwifruit, litchi, mango, paw paw and stone fruit trees and ornamentals in the Rosaceae family.
	For residual control of annual weeds in citrus, pome fruit and vines 'Touchdown' may be tank mixed with
	'Simagranz'. See Compatibility Section.
CROPS	'Touchdown' can be used to control annual and perennial weeds prior to sowing most crops. In some
Sown/Transplanted	instances crops sown or transplanted after the use of glyphosate salts have been injured by one or more
	factors including inadequate soil phosphorous sorption capacity especially under dry conditions, an
	interaction with soil fungi and/or decaying weed residues or root exudates from treated weeds.
	'Touchdown' applied with selective application equipment can be used to control weeds growing between
	crop rows and weeds extending at least 15 cm above the crop.
	Avoid contact of crop foliage with 'Touchdown' or its application equipment.
SUGAR CANE RATOON SPRAYOUT	Apply under good growing conditions only to actively growing ratoons 60-120 cm tall.
For control of sugar cane Saccharum officinale	DO NOT apply if plants are under stress from low moisture or waterlogging.
ratoon regrowth Qld, NSW, WA only	RATE: 4 - 9 L/ha. Use the lower rate for suppression or where cultivation is to follow. Use the higher rate
	for control without cultivation. Varieties differ in their sensitivity to 'Touchdown' and this can be influenced
	by the growing conditions.
PASTURES	'Touchdown' is non-selective and may kill desirable plants in the sprayed area.
Spot Application	See General Instructions - Wiper Equipment
Wick Wiper Application	
Dry drains and channels, dry margins of dams,	DO NOT apply to weeds growing in or over water. DO NOT spray across open bodies of water, and DO
lakes and streams	NOT allow spray to enter the water. DO NOT allow water to return to dry channels and drains within 4
	days of application.

ANNUAL WEEDS CONTROLLED	RATE
BROADLEAFED	BOOM: *
Bathurst burr Xanthium spinosum	2 to 3 L/ha
Bellvine Ipomoea plebeia	Z to o Ema
Black bindweed Polygonum convolvulus	
Blue Billygoat weed Ageratum houstonianum	
Caltrop Tribulis terrestris	HAND SPRAY
Capeweed Arctotheca calendula	(handgun or knapsack)
Carrot Daucus carota	500 to 700
Common sowthistle Sonchus oleraceus	mL/100 L
Common thornapple Datura stramonium	1100
Deadnettle Lamium amplexicaule	
Fat hen Chenopodium album	
Flaxleaf fleabane Conyza bonariensis	WIPER:
Fumitory <i>Fumaria</i> sp	1 part 'Touchdown'
Mintweed Salvia reflexa	2 parts water
Paterson's Curse Echium plantagineum	· ·
Prickly lettuce Lactuca serriola	
Redroot amaranth Amaranthus retroflexus	
Rough poppy Papaver hybridum	
Rough sowthistle Sonchus asper	
Saffron thistle Carthamus lanatus	
Shepherd's purse Capsella bursa-pasforis	
Slender celery Apium leptophyllum	
Smooth catsear Hypochoeris glabra	
Spear thistle Cirsium vulgare	
Speedy weed Flaveria australasica	
Storksbill (Qld, NSW, Vic, SA, WA only) <i>Erodium sp</i>	
Tall fleabane Conyza albida	
Turnip weed Rapistrum rugosum	
Variegated thistle Silybum marianum	
Wild turnip Brassica tournefortii	
Wireweed Polygonum aviculare (apply to young plants - repeat application may be required)	

#### GRASSES

Annual ryegrass Lolium rigidum

Awnless barnyard grass Echinochloa colona

Barley grass Hordeum leporinum

Barnyard grass Echinochloa crus-galli

Crowsfoot grass Eleusine indica

Dinebra Dinebra retroflexa

Grain sorghum  $\mathit{Sorghum}\,\mathit{bicolor}$ 

Great brome Bromus diandrus

Lesser canary grass *Phalaris minor* 

Liverseed grass *Urochloa panicoides* 

Maize Zea mays

Paradoxa grass Phalaris paradoxa

Pigeon grass Setaria sp

Silver grass Vulpia sp

Soft brome Bromus mollis

Sterile brome Bromus sterilis

Stink grass Eragrostis cilianensis

Wheat Triticum aestivum

Whorled pigeon grass Setaria verticillata

Wild oats Avena fatua, A. Iudoviciana

Windmill grass Chloris truncata

Winter grass Poa annua

**BOOM:** \* **2** to **3** L/ha

**HANDSPRAY** 

(handgun or knapsack)

**500** to 700 mL/100 L

WIPER:

1 part 'Touchdown'2 parts water

#### \* NOTE:

Use the lower rate on actively growing weeds up to 15 cm high;

use the higher rate on weeds which are not stressed greater than 15 cm high or when conditions are dry or cold with ongoing overcast conditions.

### PERENNIAL WEEDS

			RATE		
SPECIES CONTROLLED	STATE	BOOM L/ha	HAND SPRAY per 100L	HAND SPRAY per 5L	CRITICAL COMMENTS
BROAD LEAVES, BRUSH &WOODY WEEDS, RUSHES/SEDGES					
Boxthorn, African Lycium ferocissimum	All States		IL	50 mL	Spray foliage thoroughly. Retreatment and/or subsequent control of seedlings may be required
Bracken Pteridium esculentum		9L	1.5L	75 <b>mL</b>	Add PULSE 200 mL/100L for boom and spot spray, not wiper. Slash bracken 6 months prior to application in autumn to fully expanded, actively growing fronds. Wiper application preferred for control in pasture, refer to Wiper Equipment under General Instructions.
Catsear Hypochoeris radicata		3L	700 <b>m</b> L	35 mL	Apply at early flowering and when growing actively.
Crofton weed Eupatorium adenophorum	Qld, NSW only	-	500 <b>mL</b>	25 mL	Spray foliage thoroughly. Follow up control of seedlings may be required.
Fennel (Aniseed) Foeniculum vulgare	All States	=	500 <b>mL</b>	25 mL	Apply when growing actively.
Lamb's tongue Plantago lanceolata		3L	700 <b>m</b> L	35 mL	Apply when heads present and plants growing well.
Nutgrass Cyperus rotundus		6L	IL	50 mL	Apply when plants flowering in summer and growing well. Retreatment necessary for longer term control.
Redflower mallow Modiola caroliniana		3L	700 <b>m</b> L	35 mL	Apply when growing well at early flowering.
Rush, common Juncus usitatus		3L	700 mL	35 mL	Apply when growing well. Wiper preferred for control in pasture - refer to Wiper Equipment under General Instructions.  Do NOT apply to weeds growing in or over water. Do NOT spray across open bodies of water, and do NOT allow spray to enter the water. Do NOT allow water to return to dry channels and drains within 4 days of application.
Salsify Tragopogon porrifolius		1.5L	500 mL	25 mL	Apply at early flowering and when growing well.
Sorrel Rumex acetosella		4L	IL	50 mL	
Soursob Oxalis pes-caprae	NSW, Vic, SA, WA, Tas, ACT only	1.5L	500 mL	25 mL	Apply when flowering, before natural die back occurs. Retreatment required in following season for longer term control.
Wild sage Salvia verbenaca	All States	1.5L	500 mL	25 mL	Apply at rosette to early flowering stage.
Yellow vine Tribulis <b>micrococcus</b>	QId, NSW only	1.5L	500 mL	25 <b>m</b> L	Apply when growing actively and flowering.

#### GRASSES

Carpet grass Axonopus affinis	All States	3	500 <b>mL</b>	25 <b>mL</b>	Apply when growing well at early flowering.			
Common reed Phragmites australis		9	1.3L	70 <b>mL</b>	Apply at early flowering. Control may not be evident until following season. Refer to Wiper equipment under General Instructions. Do NOT apply to weeds growing in or over water. Do NOT spray across open bodies of water, and do NOT allow spray to enter the water. Do NOT allow water to return to dry channels and drains within 4 days of application.			
Couch Cynodon dactylon		9	1.3L	70 <b>m</b> L	Apply when growing well at early flowering.			
Cumbungi Typha domingensis T. orientalis	Qld, NSW, Vic, SA. WA, NT, ACT only	6 to 9	1.3L	70 <b>mL</b>	Apply in summer when in head. Plants must be growing actively. The lower rate has given good control of regrowth in the following summer. Use the higher rate when faster control is required. Refer to Wiper equipment under General Instructions. Do NOT apply to weeds growing in or over water. Do NOT spray across open bodies of water, and do NOT allow spray to enter the water. Do NOT allow water to return to dry channels and drains within 4 days of application.			
Guinea grass Panicum maximum	All States	9	1.3L	70 mL	Apply when growing well at early flowering.			
Hamil grass Panicum maximum cv Hamil Humidicola Brachiaria humidicola		6 to 9	1 to 1.3L	50 to 70 mL	Apply when growing well at early flowering. Use the lower rate under good growing conditions. Use the higher rate for more advanced growth or under less optimum growing conditions.			
Johnson grass Sorghum halepense		6	IL	50 <b>mL</b>	Apply when growing well at early flowering. Refer to Wiper equipment under General Instructions			
Kikuyu Pennisetum clandestinum		6	1	50 <b>mL</b>	Apply when growing well at early flowering. Refer to Wiper equipment under General Instructions			
Para grass Bracharia mutica		6 to 9	1 to 1.3 L	50 to 70 <b>mL</b>	Apply when growing well at early flowering. Refer to Wiper equipment under General Instructions			
Paspalum Paspalum dila ta <b>tum</b>		3	700 <b>mL</b> .	35 <b>mL</b>	Apply when growing well at early flowering.			
Phalaris Phalaris <b>aquatica</b>	NSW, Vic, SA, ACT only	3 to 6	500 mL to	25 to 50 <b>mL</b>	Apply when growing well at early flowering.			
Prairie grass Bromus unioloides	All States	6	IL	50 <b>m</b> L	Apply when growing well at early flowering.			
Rhodes grass Chloris gayana		6	IL	50 <b>mL</b>	Apply when growing well at early flowering.			
Timothy grass Phleum pra tense	NSW, Vic, SA, WA, Tas, ACT only	3	700 mL	35 mL	Apply when growing well at early flowering			
Yorkshire fog grass Holcus lanatus	All States	3	700 mL	35 mL	Apply when growing well at early flowering			

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

#### **GENERAL INSTRUCTIONS**

'Touchdown' is a non-selective foliar applied herbicide which is absorbed by green plant tissue and translocated through the plant. Weeds must be growing well for optimum performance. Any conditions eg. cold or overcast, which slow plant growth will delay or inhibit weed control. Avoid treating plants that are stressed from soil moisture deficit, frost, pests and diseases and water logging. Plants covered with dust may be less susceptible.

'Touchdown' causes yellowing and wilting of above ground parts by browning and death. Visible symptoms may take from several days to 3-4 weeks to appear, depending on the weed species and the weather conditions. In perennials 'Touchdown' controls underground roots and buds and symptoms may not be visible for a period of up to 6 weeks. Control of regrowth may not be evident until the following season.

'Touchdown' is absorbed and inactivated by soil particles and will not provide residual control of weeds. Where longer term weed control is required, 'Touchdown' can be tank mixed with certain residual herbicides (see compatibility) or follow-up applications can be made.

'Touchdown' is water soluble and can be washed off plants by rain. Do not spray if rain is likely to occur within 6 hours. Retreatment may be necessary if heavy rain (eg. 4 mm) occurs within that time.

#### Resistant Weeds Warning

'Touchdown' Herbicide is a member of the glycines group of herbicides. 'Touchdown' has the inhibitor of EPSP synthase mode of action. For weed resistance management 'Touchdown' is a Group M herbicide.

Some naturally occurring weed biotypes resistant to 'Touchdown' and other inhibitors of EPSP synthase mode of action 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 'Touchdown' or other inhibitors of EPSP synthase mode of action 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 'Touchdown' to control resistant weeds.

#### **APPLICATION**

Avoid direct or indirect contact (through spray drift) of desirable plants.

#### Aerial application

Use the recommended rate of 'Touchdown' in 20-30L of water per ha.

#### **Boom equipment**

Use the recommended rate of 'Touchdown' in 30-250L of water per ha. The amount of water required will vary depending on the density and size of the weeds to be controlled. Where the lower rates of 'Touchdown' are used for fallow weed control, use the lower water volumes. A calibrated boom fitted with flat fan nozzles operating at the optimum pressure and height for that nozzle is recommended.

Knapsack and high volume equipment

Select or adjust nozzle(s)to give a fine spray without causing undesirable run-off.

Wiper equipment

'Touchdown' can be applied through hand held or machine mounted wiper equipment in non-crop areas and to selectively control weeds in crops and pastures. There must be sufficient height differential between the weed and crop/pasture to allow maximum contact of the wiper with the weeds without touching desirable vegetation.

Mix 1 part 'Touchdown' with 2 parts clean water.

For machine mounted wipers ground speed should be 4-8 km/hr. Two passes, at right angles or in the opposite direction will give better results.

#### **Controlled Droplet Application equipment (CDA)**

Use the following table as a guide for achieving correct application rates using the Microfit \*Herbi or similar equipment.

See Species Controlled tables for specific rates and use recommendations.

For hand held equipment a walking speed of approximately 1 m/sec (3.6 km/hr) is recommended.

Rate of 'Touchdown' delivered at 1 m/sec	3 L/ha	6 L/ha	9 L/ha
Mixture (by volume) 'Touchdown': water	1:3	1:1	2:1
Microfit *Herbi, nozzle	Blue	Blue	Yellow

#### Mixina

Use only clean, soft water. Use of dam water containing soil particles, or hard water eg. from bores containing calcium salts may reduce efficacy.

Fill the clean spray tank 2/3 full with water. Add the required volume of 'Touchdown' and agitate. Complete filling the tank with the hose end under the surface to minimise frothing.

#### Compatibility

'Touchdown' can be mixed with the following herbicides and additives where recommended: 'Atradex' WG, 'Diurex' WG, 'Simagranz'. These additives may slow down initial activity of 'Touchdown', but final weed control is not affected.

Addition of crystalline or liquid ammonium sulphate is not required with these products. Add the partner herbicide to-the tank when 2/3 full under agitation, then the 'Touchdown' and complete filling

'Touchdown' can be mixed with 'Goal' ® at the spike rate of 75 mL 'Goal'/ha to increase speed of kill and to aid control of harder-to-kill weeds **such** as storksbill *Erodium spp*. Add the 'Goal' to the 2/3 full spray tank under agitation, then the 'Touchdown' and complete filling. Do not use a tank mix of atrazine and 'Touchdown' for barnyard grass control. Also mixtures of other formulations of simazine, atrazine and diuron may reduce the activity of 'Touchdown'.

#### Additives

Pulse ® penetrant: 200 mL/1 OOL spray solution for use with 'Touchdown' against bracken only.

#### PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

DO NOT apply under weather conditions or from spraying equipment which may cause spray to drift onto nearby susceptible plants/crops, cropping lands or pastures.

#### PROTECTION OF LIVESTOCK

Low hazard to bees. No special precautions are required

#### PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

DO NOT contaminate dams, rivers or streams with the product or used container. DO NOT apply to weeds growing in or over water. DO NOT spray across open bodies of water.

#### STORAGE AND DISPOSAL (Non-Returnable Containers)

Store in the closed, original container, in a cool, dry, well-ventilated room or place away from children, animals, food, feedstuffs, drink containers, seed and fertilisers. Do not store for prolonged periods in direct sunlight. Triple or (preferably) pressure rinse containers before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on-site. Break, crush, puncture and bury empty containers in a local authority landfill. If not available bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, vegetation and roots. Empty containers and product should not be burnt.

#### STORAGE AND DISPOSAL (Returnable Containers)

Store in a closed, original container in a well-ventilated area as cool as possible and away from children, animals, food, feedstuffs, seed and fertilisers. DO NOT store for prolonged periods in direct sunlight. Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

#### SAFETY DIRECTIONS

Harmful if inhaled or swallowed. Will irritate eyes and skin.

Avoid contact with eyes and skin. Do not inhale spray mist.

WHEN MIXING AND USING

When preparing spray and using the prepared spray wear elbow-length PVC gloves and face shield.

#### AFTER USE

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 and face shield and contaminated clothing. Refer to MSDS No. 41255

#### FIRST AID

If poisoning occurs contact a doctor or Poisons Information centre. If swallowed and if more than 15 minutes from a hospital, induce vomiting, preferably using Ipecac Syrup APF.

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PINKENBA QLD 4008

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