

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

TOUCHDOWN®



HERBICIDE

Active Constituent: 5 g/L BUTAFENACIL
225 g/L GLYPHOSATE, present as the isopropylamine salt

For the control of various weeds prior to planting cereal crops as per Directions for Use

GROUP G | M HERBICIDE

NRA Approval No: 53539/0302

Pack size: 20 L, 100 L

GENERAL INSTRUCTIONS

Resistant Weeds Warning

TOUCHDOWN B-POWER Herbicide is a member of the pyrimidindiones and glycines groups of herbicides. The product has the inhibitors of protoporphyrinogen oxidase and inhibitors of EPSP synthase modes of action. For weed resistance management, the product is a Group G and M herbicide.

Some naturally occurring weed biotypes resistant to the product and other Group G and M 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 G and M herbicides.

Since the occurrence of resistant weeds is difficult to detect prior to use, Syngenta Crop Protection Pty Limited accepts no liability for any losses that may result from the failure of this product to control resistant weeds.

Advice as to strategies and alternative treatments that can be used should be obtained from your local supplier, consultant, local Department of Agriculture, Primary Industries Department or a Syngenta representative.

Uses

TOUCHDOWN B-POWER is a non-volatile, water soluble liquid product with non-selective herbicidal activity. It is absorbed by plant foliage and green stems and moves through the plant from the point of contact to and into the root system. Effects may not be apparent for 3 days or longer under cool, cloudy conditions. Apply treatments to weeds which have at least one true leaf (broadleaf weeds) or two leaves (grasses) to provide an adequate surface area for herbicide uptake. TOUCHDOWN B-POWER may be used prior to sowing any cereal crop.

Weeds should be actively growing at time of treatment. DO NOT treat weeds under poor growing or dormant conditions (such as occur in drought, waterlogging, disease, insect damage or following frosts) as reduced weed control may result.

Reduced results may also occur when treating weeds heavily covered with dust or silt. Prior herbicide application may also induce stress in weeds.

Rainfall occurring up to 6 hours after application may reduce effectiveness. Heavy rainfall within 2 hours after application may wash the chemical off the foliage and a repeat treatment may be required. Delay treatment of plants wet with dew or rain, if water droplets run-off when plants are disturbed. Avoid contact with foliage, green stems or fruit of crops, desirable plants and trees, since severe injury or destruction may result.

Crop Establishment

TOUCHDOWN B-POWER is recommended for control of emerged weeds prior to crop establishment. Suitable cultivation and/or sowing operations are required to provide seedbed conditions satisfactory for crop germination and development. Spraying early to control young weeds will favour preparation of suitable seedbeds. On friable soils and where there is only light cover of young weeds, sowing may proceed satisfactorily from one day after spraying. In situations of heavy weed growth sowing should be delayed until weed decay and soil conditions allow formation of a satisfactory seedbed. Incorporation of green or decaying vegetation and roots into the seedbed by cultivation or sowing may cause retarded crop emergence, particularly in cold and/or wet conditions.

Mixing

DO NOT mix, load or apply this product within 20 m of any well, sink hole, intermittent or perennial stream.

Fill the spray tank with one half the required amount of clean water and add the required amount of TOUCHDOWN B-POWER. Mix well before adding the remaining portion of water. Add the surfactant near the end of the filling process to minimize foaming. Placing the filling hose below the surface of the spray solution will prevent excessive foaming. Removing hose from tank immediately after filling will prevent back siphoning into water source.

Note: Reduced results may occur if water containing soil is used, eg water from ponds and unlined ditches, or if hard water containing calcium salts is used.

DO NOT mix, store or apply this product or spray solutions of this product in galvanised steel or unlined steel containers or spray tanks, since a highly flammable gas mixture may be formed.

Use stainless steel, aluminium, brass, copper, fibreglass, plastic or plastic-lined containers or spray tanks. Ensure the sprayer is free of any residue of previous spray materials.

Use spray solutions promptly.

DO NOT use mechanical agitators as these may cause excessive foaming. Spray tanks, pumps, lines and nozzles should be thoroughly rinsed with clean water following application to prevent corrosion.

Mixing Instructions for all Tank Mixtures

1. Fill the spray tank 1/3 to 1/2 full with clean water and start agitation.
2. Add recommended herbicide/insecticide/additive to the spray tank and mix thoroughly.
3. Add TOUCHDOWN B-POWER and the remaining water. Mix thoroughly.
4. Add surfactant, near the end of the filling process to minimize foaming.
5. Always maintain adequate agitation during application and use the tank mix promptly.

**Mixing Order**

Some products may react with other products if they are not mixed in the correct order. The general mixing order of products should be:

1. Water conditioners or buffers
2. Water dispersible granules (WG)
3. Wettable powders (WP)
4. Flowable or suspension concentrates (SC)
5. Emulsifiable concentrates (EC)
6. Water based or soluble concentrates
7. Oils and wetters

It is important to ensure that each individual component of the tank mix is fully dissolved and in solution before the next product is added to the tank mix, otherwise mixing problems may occur.

Application

TOUCHDOWN B-POWER is a non-selective translocated herbicide. Direct spray contact, or even slight drift, may cause severe injury or destruction of any growing crop or other desirable plants including trees. Clean all equipment after use by thoroughly washing as outlined below.

Boom Equipment: Application of TOUCHDOWN B-POWER in spray volumes of 50 to 250 L/ha is recommended. Fan nozzle equipment is recommended, using pressures in the range 100 to 400 kPa. In drift sensitive situations use pressures towards the lower end of the range with appropriate drift reduction nozzles. Boom height must be set to ensure double overlap of nozzle patterns at the top of the weed canopy.

Cleaning Equipment After Application

Thoroughly clean the sprayer using the following procedure when you have finished spraying highly active materials such as butafenacil products.

1. Start with a thoroughly cleaned sprayer before beginning the next job.
2. Mix only as much spray solution as needed. Immediately after spraying, clean equipment thoroughly using this procedure. Wear appropriate protective clothing.
3. Flush tank, hoses, boom and nozzles with clean water.
4. Prepare a cleaning solution of 300 mL of household chlorine bleach (containing 4% chlorine) per 100 L of water. Ensure bleach used is fresh as it can degrade significantly over time resulting in a reduction in cleaning ability.
5. When available, use a pressure washer to clean the inside of the spray tank with this solution. Take care to wash all parts of the tank, including the inside top surface and lid.
6. Completely fill the sprayer with the cleaning solution to ensure contact of the cleaning solution with all internal surfaces of the tank and plumbing. Start agitation in the sprayer and thoroughly recirculate the cleaning solution for at least 15 minutes. All visible deposits must be removed from the spraying system and in cases where there is the possibility of heavy build up of residues the cleaning solution may need to be left in the tank for extended periods to ensure adequate decontamination of the tank.
7. Flush hoses, spray lines and nozzles for at least 1 minute with the cleaning solution.
8. Dispose of rinsate from steps 1 to 5 in an appropriate manner.

9. Repeat steps 2 to 5.

10. Remove nozzles, screens and strainers and clean separately in the cleaning solution after completing the above procedures. Be careful with filters, as they can be a main source of contamination.

11. Rinse the complete spraying system with clean water.

The above method is only effective if the cleaning solution comes into contact with every surface or contact point that may contain even minute butafenacil residues. In some boom sprayers this may not be physically possible and hence it may be advisable to use a different boomsprayer that has not been used to spray butafenacil, when spraying sensitive crops such as legumes and especially canola.

Compatibility

TOUCHDOWN B-POWER is compatible with LOGRAN® and Glean*.

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 apply or drain or flush equipment on or near 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.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

This product is very highly toxic to algae and aquatic plants. DO NOT apply this product within 20 m of natural or impounded lakes or dams.

DO NOT apply under meteorological conditions or from spraying equipment which could be expected to cause drift of this product or spray mix onto adjacent areas, particularly wetlands, waterbodies or watercourses.

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 out of direct sunlight.

20 L Drum

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.

100 L Refillable Drum

Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

SAFETY DIRECTIONS

**Will irritate eyes and skin. Avoid contact with eyes and skin.
When preparing spray wear:**

- cotton overalls buttoned to the neck and wrist (or equivalent clothing); and
- elbow-length PVC gloves.

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 contaminated clothing.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone 131 126.

MATERIAL SAFETY DATA SHEET

If additional hazard information is required, refer to the Material Safety Data Sheet. For a copy phone 1800 067 108 or visit our website at www.syngenta.com.au

MANUFACTURER'S WARRANTY AND EXCLUSION OF LIABILITY

Syngenta has no control over storage, handling and manner of use of this product. Where this material is not stored, handled or used correctly and in accordance with directions, no express or implied representations or warranties concerning this product (other than non-excludable statutory warranties) will apply. Syngenta accepts no liability for any loss or damage arising from incorrect storage, handling or use.

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DIRECTIONS FOR USE

Restraints:

- DO NOT apply to annual weeds within 1 day or perennial weeds within 7 days of cultivating or sowing a cereal crop.
- DO NOT make more than 1 application per season.
- DO NOT tank mix with LOGRAN® B-POWER.
- DO NOT use if LOGRAN B-POWER is to be used in the same season.
- DO NOT apply by aircraft.
- DO NOT apply if heavy rainfall that is likely to cause run-off is forecast or irrigation is to take place within 48 hours of application.

Situation	Weeds Controlled	Rate/ha	Critical Comments
Prior to sowing a cereal crop with full soil disturbance by cultivation or sowing with a tyned implement	Canola (<i>Brassica napus</i>), Capeweed (<i>Arctotheca calendula</i>), Dock (seedling) (<i>Rumex crispus</i>), Doublegee/Three Cornered Jack /Spiny Emex (<i>Emex australis</i>), Goosefoot (<i>Chenopodium pumilio</i>), Lupins (<i>Lupinus spp.</i>), Marshmallow (<i>Malva parviflora</i>), Medic (<i>Medicago spp.</i>), Paterson's Curse (<i>Echium plantagineum</i>), Sowthistle (<i>Sonchus oleraceus</i>), Sub Clover (<i>Trifolium spp.</i>), Wild Radish (<i>Raphanus raphanistrum</i>), Wild Turnip (<i>Brassica tournefortii</i>)	Up to 4 leaf stage 0.8 to 1.6 L Add a recommended adjuvant at label rates Greater than 4 leaf stage 1.6 to 2.4 L Add a recommended adjuvant at label rates	Treat only actively growing weeds not under stress from low moisture, frost, cold, disease or waterlogging. If heavy grazing has occurred allow regrowth before spraying and use the higher rate. Rate Selection: Increase to higher rates late in the season or when treating under cold/overcast conditions. Full Disturbance with cultivation or sowing with a tyned implement may start one day after treatment (7 days if large or perennial weeds are present) and should occur within 21 days after treatment. Where cultivation or sowing does not occur within 21 days, new weed growth may require further treatment with an alternative knockdown herbicide.
	Deadnettle (<i>Lamium amplexicaule</i>), Sorrel (<i>Rumex acetosella</i>)	Up to 4 leaf stage 1.2 to 1.6 L Add a recommended adjuvant at label rates Greater than 4 leaf stage 1.6 to 2.4 L Add a recommended adjuvant at label rates	Crop Establishment: Sowing should not proceed until conditions allow the formation of a satisfactory seedbed. See Crop Establishment for directions.
	Turnip Weed (<i>Rapistrum rugosum</i>)	1.6 to 2.4 L Add a recommended adjuvant at label rate	Adjuvants: Always add an adjuvant such as an esterified seed oil eg. Haste*, crop oil concentrate eg. DC Trate* or non ionic wetter eg. BS 1000* to the spray mix at recommended label rates. On large weeds and in less than ideal conditions the use of Haste in preference to a non ionic wetter is recommended.
	Barley Grass (<i>Hordium leporium</i>), Brome Grass, (<i>Bromus diandrus</i>), Volunteer Cereals, Wild Oats (<i>Avena fatua</i>)	Pre-tillering: 0.8 to 1.6 L Add a recommended adjuvant at label rates Post-tillering: 1.6 to 2.0 L Add a recommended adjuvant at label rates	
	Annual Ryegrass (<i>Lolium rigidum</i>)	Pre-tillering: 1.6 to 2.0 L Add a recommended adjuvant at label rates Post-tillering: 2.0 to 2.4 L Add a recommended adjuvant at label rates	

DIRECTIONS FOR USE – *continued*

Situation	Weeds Controlled	Rate/ha	Critical Comments
Prior to establishing a cereal crop with an implement that gives minimal or no soil disturbance	Canola (<i>Brassica napus</i>), Capeweed (<i>Arctotheca calendula</i>), Deadnettle (<i>Lamium amplexicaule</i>), Dock (seedling) (<i>Rumex crispus</i>), Doublegee/Three Cornered Jack/Spiny Emex (<i>Emex australis</i>), Goosefoot (<i>Chenopodium pumilio</i>), Lupins (<i>Lupinus spp.</i>), Marshmallow (<i>Malva parviflora</i>), Medic (<i>Medicago spp.</i>), Paterson's Curse (<i>Echium plantagineum</i>), Sorrel (<i>Rumex acetosella</i>), Sowthistle (<i>Sonchus oleraceus</i>), Sub Clover (<i>Trifolium spp.</i>), Turnip Weed (<i>Rapistrum rugosum</i>), Wild Radish (<i>Raphanus raphanistrum</i>), Wild Turnip (<i>Brassica tournefortii</i>)	2.0 to 3.2 L Add a recommended adjuvant at label rates	Treat only actively growing weeds not under stress from low moisture, frost, cold, disease or waterlogging. If heavy grazing of mature plants has occurred, allow regrowth before spraying and use the higher rate. Rate Selection: Use the lower rate on young weeds (pre tillering or up to the 4 leaf stage); increase to higher rates where grasses reach tillering or where broadleaf weeds are greater than the 4 leaf stage. Increase to higher rates when treating under cold/overcast conditions. Crop Establishment: DO NOT sow into excessive trash.
	Barley Grass (<i>Hordium leporium</i>), Brome Grass (<i>Bromus diandrus</i>), Volunteer Cereals, Wild Oats (<i>Avena fatua</i>)	1.6 to 2.4 L Add a recommended adjuvant at label rates	Adjuvants: Always add an adjuvant such as an esterified seed oil eg. Hasten, crop oil concentrate eg. DC Trate or non ionic wetter eg BS 1000 to the spray mix at recommended label rates. On large weeds and in less than ideal conditions the use of Hasten in preference to a non ionic wetter is recommended.
	Annual Ryegrass (<i>Lolium rigidum</i>)	2.4 to 3.2 L Add a recommended adjuvant at label rates	 Rate Selection: Use the lower rate on young weeds (pre tillering or up to the 4 leaf stage) or where cultivation is to follow within 21 days. Increase to higher rates where grasses reach tillering or where broadleaf weeds are greater than the 4 leaf stage. Increase to higher rates when treating under cold/overcast conditions. Adjuvants: Always add an adjuvant such as an esterified seed oil eg. Hasten, crop oil concentrate eg. DC Trate or non ionic wetter eg BS 1000 to the spray mix at recommended label rates. DO NOT use a non ionic wetter in a fallow situation.
To commence a fallow	Annual Ryegrass (<i>Lolium rigidum</i>), Barley Grass (<i>Hordium leporium</i>), Brome Grass (<i>Bromus diandrus</i>), Canola (<i>Brassica napus</i>), Capeweed (<i>Arctotheca calendula</i>), Deadnettle (<i>Lamium amplexicaule</i>), Dock (seedling) (<i>Rumex crispus</i>), Doublegee/Three Cornered Jack/Spiny Emex (<i>Emex australis</i>), Goosefoot (<i>Chenopodium pumilio</i>), Lupins (<i>Lupinus spp.</i>), Marshmallow (<i>Malva parviflora</i>), Medic (<i>Medicago spp.</i>), Paterson's Curse (<i>Echium plantagineum</i>), Sorrel (<i>Rumex acetosella</i>), Sowthistle (<i>Sonchus oleraceus</i>), Sub Clover (<i>Trifolium spp.</i>), Turnip Weed (<i>Rapistrum rugosum</i>), Wild Oats (<i>Avena fatua</i>), Volunteer Cereals, Wild Radish (<i>Raphanus raphanistrum</i>), Wild Turnip (<i>Brassica tournefortii</i>)	2.4 to 3.2 L Add a recommended adjuvant at label rates	Treat only actively growing weeds not under stress from low moisture, frost, cold, disease or waterlogging. If heavy grazing occurred allow regrowth before spraying.

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

WITHHOLDING PERIODS:	Grazing: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 6 WEEKS AFTER APPLICATION.
	Harvest: NOT REQUIRED WHEN USED AS DIRECTED.