

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



Smackdown Herbicide

ACTIVE CONSTITUENT: 240 g/L CARFENTRAZONE-ETHYL
SOLVENTS: 736 g/L LIQUID HYDROCARBON
20 g/L N-METHYL-2-PYRROLIDONE

GROUP	G	HERBICIDE
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For the Control of Marshmallow and Annual Nettles in Grass Pastures, Rough Grass and Turf Areas; Improvement in the Control of Marshmallow and certain other Broadleaf Weeds, in Commercial, Industrial and Public Service Areas, and around Agricultural Buildings and Yards, in Tank Mixtures with Knockdown Herbicides; Addition to Selective Herbicides; as per the Directions for Use

IMPORTANT: READ THIS LEAFLET BEFORE USING THIS PRODUCT

APVMA Approval No.: 64135/117722



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DIRECTIONS FOR USE**Restraints****DO NOT** use on golf greens or bowling greens.**DO NOT** tank mix with any type of fertiliser.**Spray Drift Restraint****DO NOT** apply during surface temperature inversion conditions at the application site.**a) Smackdown Herbicide Mixtures with Bow & Arrow® Herbicide to Assist Weed Control in Established Turf****Additional Spray Drift Restraint****DO NOT** apply when wind speed is less than 3 or more than 20 kilometres per hour at the application site, when mixed with Bow & Arrow Herbicide.

Situation	Weeds Controlled	Rate/Timing	Critical Comments
Turf Common Couch, Hybrid Couch, Kikuyu, Buffalo, Qld Blue Couch	Marshmallow (<i>Malva parviflora</i>) Annual (stinging) nettles (<i>Urtica urens</i>) plus to enhance the weeds controlled (and to broaden weed control spectrum) of Bow & Arrow Herbicide	25 - 75 mL/ha plus recommended label rate of Bow & Arrow Herbicide Apply to seedlings at 2 - 10 leaf stage	To improve the control of large Marshmallow and Annual nettles (and to broaden weed control spectrum), Smackdown Herbicide should be tank mixed with Bow & Arrow Herbicide. The use of Smackdown Herbicide with Bow & Arrow Herbicide will increase the speed at which the treated weeds develop symptoms (compared to results achieved without Smackdown Herbicide) and hasten weed death. Use the lower rates on younger plants or plants growing under good conditions and the higher rates on older plants or plants growing under less optimum conditions. These Smackdown Herbicide rates (sprayed singularly) may only provide suppression of Marshmallow which is why a tank mix as directed is required in order to improve the control of Marshmallow.
	If transient discolouration occurs when using Bow & Arrow Herbicide on Kikuyu, Carpet grass, Queensland Blue Couch or Buffalo then the use of Smackdown Herbicide with Bow & Arrow Herbicide may worsen the discolouration experienced. It is recommended that small areas be tested for turf safety before large-scale application occurs.		
For this mixture always add non-ionic surfactant (1000 g/L – non-buffering type) such as Non-Ionic 1000 Surfactant at 250 mL/100 L (0.25 % v/v) of final spray volume. The addition of crop oil concentrate may result in crop injury.			

b) Smackdown Herbicide Use in Grass Pastures and Rough Grass / Turf Areas

Situation	Weeds Controlled	Time of Application	Rate	Critical Comments
Grass pastures; Rough grass / turf areas	Marshmallow (<i>Malva parviflora</i>) Annual (stinging) nettles (<i>Urtica urens</i>)	Apply to seedlings at 2 - 10 leaf stage	25 - 75 mL/ha plus Hasten® 0.5% v/v 25 – 75 mL/ha plus recommended rates of 2,4-D	Use the lower rates on younger plants or plants growing under good conditions and the higher rates on older plants or plants growing under less optimum conditions. These rates may only provide suppression of Marshmallow. To improve the control of large Marshmallow (and to broaden weed control spectrum), Smackdown Herbicide should be tank mixed with one of the following: <ul style="list-style-type: none"> • 500 mL/ha of an 800 g/L ethyl ester of 2,4-D • 650 mL/ha of a 600 g/L LV ester of 2,4-D • 750 mL/ha of a 625 g/L amine of 2,4-D Activity of this mix will be improved with the addition of Hasten® at 0.5% v/v.

c) Smackdown Herbicide Use with Knockdown Herbicides

Situation	Weeds Controlled	Time of Application	Rate	Critical Comments
<p>Prior to sowing winter and summer broadacre crops and starting a fallow.</p> <p>To assist in weed control in Commercial, Industrial and Public Service areas, around agricultural buildings and yards.</p>	<p>Australian Crassula/ Stonecrop (<i>Crassula spp.</i>), Capeweed (<i>Arctotheca calendula</i>), Chickweed (<i>Stellaria media</i>), Common Storksbill (max. 4 leaves) (<i>Erodium cicutarium</i>), Doublegee / Spiny Emex / Three Cornered Jack (<i>Emex australis</i>), Marshmallow (<i>Malva parviflora</i>), Paterson's curse (<i>Echium plantagineum</i>), Sub. Clover (<i>Trifolium subterraneum</i>), Wild radish (<i>Raphanus raphanistrum</i>)</p> <p>Refer also to the product label for the knockdown herbicide used.</p> <p>If one of the above weeds is the dominant weed, and there is no specific rate for it in the knockdown herbicide's label, consult the label's generic annual-weed rate-range.</p> <p>Select from within this range to suit the weed-stage, weed-density, conditions (etc.) of your situation.</p>	<p>Apply as a tank mix with; Gladiator®, Roundup PowerMAX® or other glyphosate products;</p> <p>Spray.Seed®, Shirquat®, Nuquat® or other paraquat products</p>	<p>25 - 75 mL/ha plus recommended label rates of knockdown herbicides</p> <p>Spot spray 10 mL/100 L plus recommended label spot spray rates of knockdown herbicides</p>	<p>Addition of Smackdown Herbicide to knockdown herbicides will increase the speed at which treated broadleaved weeds in general develop visible symptoms (compared to results achieved with knockdown herbicides applied alone) and may improve final control of broadleaved weeds including certain hard-to-kill weeds, Marshmallow in particular. The use of higher rates may improve control of Marshmallow in particular.</p> <p>Use the lower rates on younger plants or plants growing under good conditions and the higher rates on older plants or plants growing under less optimum conditions.</p> <p>The lower rate may only provide suppression of capeweed, wild radish, common storksbill and doublegee under poor growing conditions. Common storksbill should be no larger than 4-leaf at spraying, recently germinated and not under stress – older or stressed plants may not be adequately controlled.</p> <p>Application to hardened weeds or drought stressed weeds especially under summer conditions may cause only localised injury to weed foliage which may not enhance final weed control. Mallow growing and sprayed in the summer is especially prone to drought stress and may either not show symptoms typical of Smackdown Herbicide or may re-grow following treatment although plants did not appear very stressed at application.</p> <p>Apply only as a tank mix with recommended rates of knockdown herbicides. Refer to the appropriate label for weed sizes and follow all label directions. Addition of Hasten at 0.5% v/v may be beneficial when applying Smackdown Herbicide with a glyphosate herbicide.</p> <p>When using Smackdown Herbicide as a spot spray, apply in sufficient water (minimum 500 L/ha) to thoroughly wet all weed foliage to the point of run-off.</p> <p>Addition of standard rates of a non-ionic surfactant may improve weed control.</p>

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

WITHHOLDING PERIODS

- HARVEST:** Not required for Smackdown Herbicide when used as directed. However, refer also to the withholding period of product/s mixed with Smackdown Herbicide.
- GRAZING:** DO NOT GRAZE TREATED AREAS OR CUT FOR STOCKFOOD FOR 14 DAYS AFTER APPLICATION.

EXPORT SLAUGHTER INTERVAL (ESI)

An export slaughter interval is not required when used as directed.

GENERAL INSTRUCTIONS

Smackdown Herbicide is an emulsifiable concentrate formulation and is to be mixed with water and applied as per the labelled Directions for Use.

Smackdown Herbicide is a fast acting contact herbicide and aids in control of weeds through a process of membrane disruption. The foliar uptake of Smackdown Herbicide is rapid and plant desiccation can occur within 4 days of application. Application of Smackdown Herbicide should target small actively growing weeds. Subsequent germinations will not be controlled.

Smackdown Herbicide can be used in a variety of ways:

- To improve the control of large Marshmallow (and to broaden weed control spectrum), Smackdown Herbicide should be tank mixed with Bow & Arrow Herbicide.
- Can be added to knockdown herbicides to improve the control of certain broadleaf weeds as listed in Directions for Use in commercial, industrial and public service areas, around agricultural buildings, yards and other farm situations.
- Smackdown Herbicide can be mixed with 2,4-D herbicides (as listed in Critical Comments) for the control of Marshmallow and Annual nettle in grass pastures, rough grass and turf areas.

Symptoms

Smackdown Herbicide is rapidly absorbed through the foliage of plants. Within a few hours following application, the foliage of susceptible weeds show signs of desiccation, and in subsequent days necrosis and death of the plant.

Extremes in environmental conditions; e.g. temperature and moisture, soil conditions and cultural practices may affect the activity of Smackdown Herbicide. Under warm moist conditions, herbicide symptoms may be accelerated. While under very dry conditions, the expression of herbicidal symptoms is delayed, and weeds hardened off by drought are less susceptible to Smackdown Herbicide.

Compatibility

For tank mixing with formulations of knockdown herbicides Smackdown Herbicide is compatible with herbicides including Gladiator®, Roundup PowerMAX®, Roundup CT®, Credit®/Bonus® or other products based on glyphosate, Spray.Seed®, Shirquat®, Nuquat® or other knockdown herbicides based on paraquat and Basta®. Smackdown Herbicide is also compatible with partner herbicides commonly used with knockdown herbicides including Atradex®, atrazine SC, Banvel® 200, 2,4-D amine, 2,4-D ester, Logran® (triasulfuron), pendimethalin, Simagranz®, simazine SC, TriflurX® and Treflan® (trifluralin). This compatibility claim is restricted to a three-way mix of Smackdown Herbicide with any one of the above partner herbicides plus a knockdown herbicide (provided the knockdown herbicide label includes a claim of compatibility with that partner herbicide).

Smackdown Herbicide is compatible with non-ionic surfactants (wetting agents) and with oil adjuvants including Supercharge® and Hasten®. Always follow label instructions for the addition of surfactants. Smackdown Herbicide is also compatible with Bow & Arrow Herbicide.

Timing**Pre-crop and Marshmallow in grass pastures**

Application should be made to small, actively growing weeds less than 6 to 8 leaf in stage. As Smackdown Herbicide is a contact herbicide, best control is achieved when weeds are exposed and are not shielded by other weeds and/or stubble.

Mixing

Add half the required volume of water to spray tank and start agitation. Add any partner SC or WG herbicide next if it should be added before an EC or knockdown herbicide. Add the measured amount of Smackdown Herbicide next, followed by the knockdown herbicide (if required). Add balance of water to tank and add any adjuvant or additive if recommended for use with the knockdown herbicide as suggested in the Critical Comments. Maintain good agitation at all times until spraying is completed. DO NOT store spray mixture overnight.

Application

DO NOT apply by aerial application.

Ground sprayers

Apply Smackdown Herbicide as a broadcast application using a conventional boom sprayer with either mechanical or by-pass agitation.

Use single orifice flat fan nozzles such as Spraying Systems TeeJet® 11001, 110015, 11002 or equivalent sizes from other manufacturers or Spraying Systems TwinJet® twin flat spray tips TJ60-11002, TJ60-11003 or TJ60-11004 or equivalent sizes from other manufacturers. DO NOT use 110-03 or bigger single orifice nozzles or TJ11006 or bigger twin orifice nozzles with Smackdown Herbicide. DO NOT use floodjet, boomless jets or misters or controlled droplet application equipment.

Spray equipment should be properly calibrated to ensure correct and uniform application. Use a spray volume of 50 to 150 litres per hectare (when used in mixtures with Bow & Arrow Herbicide use the spray volume recommended on the Bow & Arrow Herbicide label).

Experience has shown that increasing spray volumes can improve weed control. Use the lowest pressure and boom height, which provides uniform coverage. Use the higher volume if weed infestation is heavy and/or tall.

The best application conditions are when soil is moist, weather fine and rain unlikely within one hour or as specified for the knockdown herbicide.

Extremes in environmental conditions, e.g. temperature and moisture, soil conditions and/or cultural practices may affect the activity of Smackdown Herbicide. Under warm moist conditions, herbicide symptoms may be accelerated. While under very dry conditions, the expression of herbicidal symptoms is delayed, and weeds hardened off by drought are less susceptible to Smackdown Herbicide.

Knapsack, Pneumatic, Handgun sprayers

Apply Smackdown Herbicide at the recommended rate of 1 mL per 10 litres (10 mL per 100 litres) in conjunction with labelled handgun rates of a knockdown herbicide in sufficient water to adequately and uniformly wet the foliage of the weeds being sprayed. A spray volume of 500 L to 1000 L will usually be sufficient but higher volumes may be required for dense taller vegetation.

Spray Preparation & Clean Up

Smackdown Herbicide's active constituent, carfentrazone-ethyl, is a fast acting contact herbicide which controls weeds through a process of membrane disruption, and to ensure optimum performance and crop tolerance, the product needs to be used in spray equipment that is thoroughly cleaned, with no residues from previous sprays.

To avoid injury to following crops, immediately after spraying, thoroughly remove all traces of Smackdown Herbicide from mixing and spray equipment. This can be achieved by using a specialist boom-cleaning product or preparing a Cleaning Solution as shown below.

Important:

More complete cleaning can be achieved if the spray equipment is cleaned immediately following each use. Mix only as much herbicide spray solution as needed at a time.

DO NOT store the sprayer for any extended period of time, especially overnight, with Smackdown Herbicide spray solution remaining in the tank, spray lines, spray boom plumbing, spray nozzles or strainers.

Preparation of the Cleaning Solution

Prepare a spray equipment cleaning solution by mixing an alkaline detergent, e.g. 'Omo' or 'Spree' at a rate of 100 g for every 100 L of clean water used.

Upon completion of applying Smackdown Herbicide and before using the sprayer on sensitive crops including **canola, pulses such as faba beans, lentils, other legumes and cotton:**

1. Fill the spray tank with sufficient cleaning solution to allow the operation of the spray system for a minimum of 15 minutes to thoroughly flush hoses, spray boom and spray nozzles **then fill the spray tank to capacity to ensure contact of the solution with all internal surfaces. Let the cleaning solution soak in tank, pump and spray lines overnight.**
2. Before further use of the sprayer, operate the spray system for 15 minutes, then completely drain the sprayer system. Rinse the tank with clean water and flush through the hoses, spray boom, and spray nozzles.
3. If possible spray a pesticide requiring an oil adjuvant, e.g. Achieve & Supercharge onto cereals as a further means of removing possible residues of Smackdown Herbicide before spraying sensitive crops.
4. Immediately prior to commencement of spraying a sensitive crop, purge the boom lines by operating the spray system onto a fence line or waste area for sufficient time to remove any solution that has been residing in the spray lines. **This is also recommended for subsequent tank loads or if the sprayer has been left standing for a period of time containing spray solution.**
5. If storing equipment for more than 48 hours, preferred practice is to clean spray equipment as outlined above allowing to soak overnight, drain and flush with fresh water and leave fresh water in the spray tank, hoses, and spray booms until next use. This water must be drained from the spray boom and lines and flushed out with clean water before beginning any application to a sensitive crop.

Properly dispose of all cleaning solution and rinsate safely in accordance with Federal, State, and local regulations and guidelines.

DO NOT apply sprayer cleaning solutions or rinsate to sensitive crops.

Should small quantities of Smackdown Herbicide remain in inadequately cleaned mixing, loading and/or spray equipment, they may be released during subsequent applications potentially causing effects to sensitive crops and other vegetation.

The above method is only effective if the cleaning solution comes into contact with every surface or contact point that may contain even minute carfentrazone-ethyl residues.

Crop Plant Back & Rotation Recommendations

Smackdown Herbicide does not provide residual activity, therefore no crop plant back or rotational restrictions apply. However, check the label of any product mixed with Smackdown Herbicide, to determine any plant back periods or restrictions on use.

Application Records

Users of this product **MUST** make an accurate written record of the details of each spray application within 24 hours following application, and must **KEEP** this record for at least 2 years.

The spray application details that must be recorded are:

1. Date with start and finish times of application
 2. Location address and paddock(s) sprayed
 3. Full name of this product
 4. Amount of product used per hectare and number of hectares applied to
 5. Crop or situation and weed or pest
 6. Wind speed and direction during application
 7. Air temperature and relative humidity during application
 8. Nozzle brand, type, spray angle, nozzle capacity and spray system pressure measured during application
 9. Name and address of person applying this product.
- (Additional record details may be required by the state or territory where this product is used.)

RESISTANT WEEDS WARNING

GROUP	G	HERBICIDE
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Smackdown Herbicide is a member of the Aryl triazoline group of herbicides. Its mode of action is through a process of membrane disruption, which is initiated by the inhibition of the enzyme protoporphyrinogen oxidase. This inhibition interferes with the chlorophyll biosynthetic pathway. For weed resistance management Smackdown Herbicide is a Group G herbicide.

Some naturally occurring weed biotypes resistant to Smackdown Herbicide and other Group G 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 Smackdown Herbicide or other Group G herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Turf Culture accepts no liability for any losses that may result from the failure of Smackdown Herbicide to control resistant weeds.

PRECAUTIONS**Re-entry**

DO NOT allow entry into treated areas until the spray has dried, unless wearing cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each day's use.

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, or onto wetlands, waterbodies or watercourses. Spray drift from Smackdown Herbicide application may cause injury to herbaceous plants, vegetables, fruit crops, vines, ornamentals and trees.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

Dangerous to fish and other aquatic life. Highly toxic to aquatic life, when mixed with Bow & Arrow Herbicide. DO NOT contaminate streams, rivers or waterways with the chemical or used containers.

PROTECTION OF LIVESTOCK

DO NOT graze treated turf, or feed clippings from any treated area to poultry or livestock.

MANDATORY NO-SPRAY ZONES

When mixed with Bow & Arrow Herbicide: DO NOT apply when there are aquatic and wetland areas including aquacultural ponds, surface streams and rivers within 30 metres downwind from the application area.

STORAGE AND DISPOSAL

Store in the closed, original container in a cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight. Triple-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 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 marked and 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.

SAFETY DIRECTIONS

Will irritate the eyes and skin. Avoid contact with eyes and skin. If product on skin, immediately wash area with soap and water. If product in eyes, wash it out immediately with water. Wash hands after use. When opening the container and preparing spray, wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and face shield or goggles. When using the prepared spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and elbow-length PVC gloves. After each day's use, wash gloves, face shield or goggles and contaminated clothing.

FIRST AID INSTRUCTIONS

If poisoning occurs, contact a doctor or Poisons Information Centre. *Phone Australia 13 11 26.*

If swallowed, DO NOT induce vomiting. Give a glass of water. If in eyes wash out immediately with water.

SAFETY DATA SHEET

For further information refer to the Safety Data Sheet (SDS), which is available from the supplier or from the manufacturer's website: www.turfculture.com.au

CONDITIONS OF SALE

The use of Smackdown Herbicide being beyond the control of the manufacturer, no warranty expressed or implied is given by Turf Culture regarding its suitability, fitness or efficiency for any purpose for which it is used by the buyer, whether in accordance with the directions or not and Turf Culture accepts with no responsibility for any consequences whatsoever resulting from the use of this product.

In a Transport Emergency Dial 000 Police or Fire Brigade

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