

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



## Smackdown Herbicide

**Active Constituent: 240 g/L carfentrazone**

For the control of marshmallow and annual nettles in grass pastures 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.

GROUP	<b>G</b>	HERBICIDE
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APVMA Approval No: 64135/0310

Pack Size: 1L

### DIRECTIONS FOR USE

#### RESTRAINTS

DO NOT use on golf greens or bowling greens.  
 DO NOT tank mix with any type of fertiliser.

SITUATION	WEEDS CONTROLLED	TIME OF APPLICATION	RATE	CRITICAL COMMENTS
<b>Turf</b>  Common Couch Hybrid Couch Kikuyu Buffalo Qld Blue Couch	Marshmallow ( <i>Malva parviflora</i> )	Apply to seedlings at 2-10 leaf stage	25 - 75 mL/ha	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 should be tank mixed with one of the following: <ul style="list-style-type: none"> <li>• Turf Culture Bow &amp; Arrow Herbicide</li> <li>• Jolt Selective Herbicide</li> </ul> Addition of Smackdown to the above products will increase the speed at which treated weeds develop visible symptoms (compared to results achieved without Smackdown) and hasten the weed death.
	Annual (stinging) nettles ( <i>Urtica urens</i> )			
	Always add non-ionic surfactant (1000 g/L – non buffering type) such as Turf Culture Turfwett Non-Ionic Surfactant at 250mL/100 L (0.25 % v/v) of final spray volume. The addition of crop oil concentrate may result in crop injury.			
If transient discolouration occurs when using Turf Culture Bow & Arrow Herbicide or Jolt Herbicide on Kikuyu, Carpet grass, Queensland Blue Couch or Buffalo then use of this product with these products may worsen the discolouration experienced.  It is recommended that small areas be tested for turf safety before large-scale application occurs.				

**DIRECTIONS FOR USE (continued)**

SITUATION	WEEDS CONTROLLED	TIME OF APPLICATION	RATE	CRITICAL COMMENTS
<p><b>Turf</b></p> <p>Common Couch</p> <p>Hybrid Couch</p>	<p>Winter Grass (<i>Poa annua</i>)</p> <p>Ryegrass (<i>Lolium spp</i>)</p>	<p>Apply as a tank mix with Turf Culture Coliseum Herbicide to assist grass weed control</p>	<p>75 mL/ha plus recommended label rates of Turf Culture Coliseum Herbicide</p>	<p>The addition of Smackdown to Turf Culture Coliseum Herbicide will increase the speed at which treated weeds develop visible symptoms (compared to results achieved without Smackdown) and hasten the weed death.</p>
	<p>Always add non-ionic surfactant (1000 g/L – non buffering type) such as Turf Culture Turfwett Non-Ionic 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.</p>			
<p>Grass pastures</p>	<p>Marshmallow (<i>Malva parviflora</i>)</p> <p>Annual (stinging) nettles (<i>Urtica urens</i>)</p>	<p>Apply to seedlings at 2- 10 leaf stage</p>	<p>25 - 75 mL/ha plus recommended rates of 2,4-D</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. These rates may only provide suppression of marshmallow.</p> <p>To improve the control of large marshmallow (and to broaden weed control spectrum), Smackdown should be tank mixed with one of the following:</p> <ul style="list-style-type: none"> <li>• 500 mL/ha of an 800 g/L ethyl ester of 2,4-D</li> <li>• 650 mL/ha of a 600 g/L LV ester of 2,4-D</li> <li>• 750 mL/ha of a 625 g/L amine of 2,4-D</li> </ul> <p>Activity of this mix will be improved with the addition of Supercharge or Hasten at 0.5%.</p>

**DIRECTIONS FOR USE (continued)**

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;                      Spray.Seed, Shirquat, Nuquat or other paraquat products</p>	<p>25 - 75 mL/ha plus recommended label rates of knockdown herbicides</p> <p><b>Spot spray</b>                      10 mL/100 L plus recommended label spot spray rates of knockdown herbicides</p>	<p>Addition of Smackdown 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 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 Supercharge at 0.5% v/v may be beneficial when applying Smackdown with a glyphosate herbicide.</p> <p>When using Smackdown 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 PERIOD:**

**HARVEST: NOT REQUIRED FOR TURF CULTURE 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. DO NOT GRAZE TREATED TURF OR FEED TURF CLIPPINGS FROM ANY TREATED AREA TO POULTRY OR LIVESTOCK**

## GENERAL INSTRUCTIONS

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

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

Smackdown can be used in a variety of ways:

- To improve the control of large marshmallow (and to broaden weed control spectrum), Smackdown should be tank mixed with Turf Culture Bow & Arrow Herbicide or Jolt Selective Herbicide.
- Smackdown can be added to Turf Culture Coliseum Herbicide to increase the speed at which treated weeds develop visible symptoms and hasten the death of Winter Grass and Ryegrass in established turf stands of Common Couch (*Cynodon dactylon*) and Hybrid Couch (*Cynodon dactylon* x *Cynodon transvaalensis*).
- 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 turf and farm situations.
- Smackdown can be mixed with phenoxy herbicides for the control of Marshmallow and Annual nettle in grass pastures.

## SYMPTOMS

Smackdown 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. 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.

## COMPATIBILITY

For tank mixing with formulations of knockdown herbicides Smackdown 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 or Guillotine products based on glufosinate. Smackdown is also compatible with partner herbicides commonly used with knockdown herbicides including Atradox, atrazine SC, Banvel 200, 2,4-D amine, 2,4-D ester, Logran (triasulfuron), pendimethalin, Simagranz, simazine SC, TriflurX and trifluralin. This compatibility claim is restricted to a three-way mix of Smackdown 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 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 is also compatible with Turf Culture Coliseum Herbicide, Turf Culture Bow & Arrow Herbicide and Jolt Selective Herbicide.

## RESISTANT WEEDS WARNING

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Smackdown is a member of the aryl triazolinone 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 is a Group G herbicide.

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

## TIMING

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

## 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 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 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. Do not use floodjet, low drift or air induction nozzles, 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.

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. 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.

#### **Knapsack, Pneumatic, Handgun Sprayers**

Apply Smackdown 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's active constituent, carfentrazone, 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 Turf Culture Smackdown from mixing and spray equipment. This can be achieved by using a specialist boom-cleaning product, such as **Turf Culture Refresh Boom Clean**.

#### **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 over night, with Smackdown spray solution remaining in the tank, spray lines, spray boom plumbing, spray nozzles or strainers.**

#### **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. Spray drift from Smackdown 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. 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. 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.

#### **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**

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.

#### **MATERIAL SAFETY DATA SHEET**

For further information refer to the Material Safety Data Sheet (MSDS), which is available from the supplier or from the manufacturer's website:

[www.turfculture.com.au](http://www.turfculture.com.au)

#### **CONDITIONS OF SALE**

The use of Turf Culture Smackdown Herbicide being beyond the control of the manufacturer, no warranty expressed or implied is given by Turf Culture Pty Ltd 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 Pty Ltd accepts with no responsibility for any consequences whatsoever resulting from the use of this product.