



PLANT GROWTH REGULATOR

Active Constituent: 120g/L Trinexapac-Ethyl
Poison Schedule: S5 (CAUTION)
APVMA Approval No: 88267



Eligible containers
5L

For the regulation of leaf and stem growth of grass species and as an aid in turf management, as per the Directions for Use. Micro-emulsion formulation

Pack Size:
5L

Dangerous Goods Class:
Not classified as a dangerous good under the Australian Code for Transport and Storage of Dangerous Goods in Australia.

Turf Growth Management

Situation	Grasses	Rate		Critical Comments
		Per ha	Per 100m ²	
Golf course and bowling greens	Bentgrass	1 to 2L	10 to 20mL	Apply Shadow Ultra at least 6 hours before or after mowing and when turf is actively growing. Use the lower rates on turf with moderate growth rates where a lower level of growth regulation is required, or when used in a program. Apply rates towards the highest end of the rate range when growth is vigorous or when longer periods of 4 to 6 weeks regulation are required. Application made to turf growing under cool conditions or to turf with low nutrient levels or where growth rates are low may result in discolouration. Well maintained turf surfaces are those which receive at least weekly mowing and good levels of water and fertility are maintained. Refer to Application section for detailed information.
	HybridCouch	0.15 to 0.6 L	1.5 to 6mL	
Golf course fairways	Carpet Grass, Kikuyu	1.6 to 4 L	16 to 40 mL	
	Common Couch	0.8 to 1.6 L	8 to 16mL	
	Couch varieties Greenless Park, Santa Ana, Wintergreen	0.6 to 1.2 L	6 to 12 mL	
Golf course short roughs, well maintained lawns, general turf surfaces	Fescue, Perennial Ryegrass	1.6 to 3 L	16 to 30 mL	
	Bahia Grass, Bent Grass, Fescue, Perennial Ryegrass	2 to 4L	20 to 40mL	
	Buffalo Grass, Common Couch, Hybrid Couch	1 to 2L	10 to 20mL	
Golf courses long roughs, parks, ovals, lawns, general grassed areas	Kikuyu	1.6 to 6L	16 to 60mL	
	Bent Grass, Fescue, Perennial Ryegrass	2 to 6L	20 to 60mL	
	Buffalo Grass, Common Couch, Hybrid Couch	1 to 4L	10 to 40mL	
	Kikuyu	2 to 8L	20 to 80mL	

Bunker facing, path and garden edging, Footpath and curbside edging, Fence lines, around trees	Bent grass, Common Couch, Perennial Ryegrass	4 to 6 L	40 to 60 mL	Apply Shadow Ultra at least 6 hours before or after mowing and when turf is actively growing. On difficult to mow areas apply Shadow Ultra to actively growing turf and mow 3 to 4 days after application. Apply in a strip approximately 25 to 50 cm wide. Use the lower rates of Shadow Ultra around bunker edges and the higher rates in the other situations. Application made to turf growing under cool conditions or to turf with low nutrient levels or where growth rates are low may result in discolouration.
	Buffalo Grass	4L	40mL	
	Couch varieties Greenless Park, Santa Ana, Wintergreen			
	Kikuyu	6 to 8L	60 to 80 mL	

Winter grass (*Poa annua*) Management

Golf course fairways, Golf course greens	Wintergrass (<i>Poa annua</i>)	0.4-1L	4 to 10mL	See instructions under Winter Grass (<i>Poa annua</i>) Management for reduction of <i>Poa annua</i> swards in Bent Grass golf greens. See Golf course greens section above for application recommendations.
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Bahia grass (*Paspalum notatum*) Suppression and Seedhead Control

		Per ha	Per 100m ²	Critical Comments
Common couch, Durban Grass, Hybrid Couch, Qld Blue Couch, Zoysia only In golf courses long roughs, lawns, median strips, ovals, parks, road-sides, general grassed area	(<i>Paspalum notatum</i>) Suppression and seedhead control	2 to 4L plus 75 mL/ha Monument* Liquid Turf Herbicide Plus 0.25 v/v non-ionic surfactant (such as Wetspray® 1000)	20 to 40mL plus 0.75 mL/100m ² of Monument* Liquid plus 0.25 v/v non-ionic surfactant (such as Wetspray® 1000)	Apply during summer when Bahia Grass produces seedheads. DO NOT apply more than 2 consecutive applications of Monument Liquid per season. See instructions under Bahia Grass (<i>Paspalum notatum</i>) Management For control of Bahia Grass seedheads in established couch areas. Refer to Application section for detailed information. Important: Refer to the Monument Liquid label for specific directions on mixing, avoiding spray drift, sprayer clean-up and protection of non-target crops and the environment.

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

WITHHOLDING PERIOD: DO NOT GRAZE TREATED TURF/LAWN, OR FEED TURF/LAWN CLIPPINGS FROM ANY TREATED AREA TO POULTRY OR LIVESTOCK



GENERAL INSTRUCTIONS:

Shadow Ultra should be applied to actively growing turf, at least 6 hours before or after mowing. Good mowing management leading up to application is required to achieve a good quality turf surface and to obtain the best results from Shadow Ultra.

Growth Regulation: The recommended use rates are designed to give approximately a 20 to 50% reduction in clippings over a 2 to 6 week period. Full growth regulation by Shadow Ultra begins about 3 to 5 days after application. In practice the amount of growth regulation achieved will vary between situations due to environmental conditions and management practices. To some extent, therefore, application rates will need to be adjusted to match growing conditions, management practices and the amount of growth regulation required by the turf manager. Repeat applications can be made as soon as the turf resumes growth or more suppression is required. Areas treated with Shadow Ultra should continue to receive regular maintenance practices, including irrigation, fertilisation, and weed, disease and insect control when necessary, as recommended for quality turf.

Winter Grass (Poa annua) Management:

Different grasses vary in their sensitivity to Shadow Ultra. Since Poa annua is more sensitive to Shadow Ultra than Bent Grass, Shadow Ultra can be used to reduce the competitiveness of Poa annua in Bent Grass golf greens. Shadow Ultra can be integrated into existing Poa annua control programs. Low rates of Shadow Ultra (that provide growth suppression of Poa annua, but not Bent Grass) applied during peak periods may enable a slow transition in the golf green sward composition away from Poa annua and towards a higher percentage of Bent Grass.

Bahia Grass (Paspalum notatum) Management: Different grasses vary in their sensitivity to Shadow Ultra and Monument* Liquid. Bahia Grass is very sensitive to the combination resulting in control of seedheads as well as vegetative growth suppression. Apply the combination as soon as seedheads start to form or when it becomes a regular mowing intervention issue, normally during October to January. Apply at 4 week intervals after mowing.

Couch Overseeding: An application of Shadow Ultra to couch will enhance the establishment of cool season turf grasses. Shadow Ultra is foliarly absorbed, so germination and seeding growth is not affected. Apply Shadow Ultra before verticutting, scalping, spiking or other similar operations to the couch. Apply Shadow Ultra 1 to 5 days before seeding.

Mixing: Shadow Ultra is a micro emulsion concentrate (ME) with minimal odour as the product does not contain petroleum solvents. Shadow Ultra mixes completely with water and may be tank mixed with many commonly used fungicides and liquid fertilizers. Add the required quantity of Shadow Ultra directly to the spray tank containing 2/3 of the required spray volume. Add the rest of the water and ensure the mix is thoroughly agitated before application.

APPLICATION:

Ensure even application in order to achieve even growth reduction. Avoid overlapping sprays.

Application volume: Apply in 100 to 500 L/ha water, using suitable flat fan nozzles. Application volume should be adequate to ensure thorough and even coverage of the turf leaves and penetration to the crowns. In higher cut turf (>15 mm) a significant spray shielding effect can occur, impacting negatively on spray penetration and even coverage at low application volumes.

Knapsack: It is important to apply the correct quantity of Shadow Ultra to a known area of turf. Apply between 2 and 10 L water/100m² turf. Preferably use flat fan nozzles and ensure even coverage is achieved.

Golf Courses and Bowling Greens: Ensure product placement as uniformly as possible onto leaves and into crowns. Ideal application volume should be 350 to 500 L/ha. For best results use medium [XR Teejet* (11004 or 11005)] to coarse [Turbo Teejet* or AIXR Teejet*(11004 or 11005)] nozzles, at 5 km/h and 3 bar pressure. Boom height should not exceed 50 cm above the ground.

All Other Turf Areas: Ensure product placement as uniformly as possible onto leaves and into crowns. Ideal application volume should be 200 to 500 L/ha. For best results use medium [XR Teejet* (11004 to 11008)] to coarse [Turbo Teejet* or AIX R Teejet* (11004 or 11005)] nozzles, at 8 km/h and 3 bar pressure. Boom height should not exceed 50 cm above the ground.



Bahia Grass Suppression and Seedhead Control: Ensure product placement as uniformly as possible onto leaves and into crowns. Ideal application volume should be 200 to 500 L/ha. For best results use coarse [Turbo Teejet* or AIXR Teejet* (11004 or 11005)] nozzles, at 8 km/h and 3 bar pressure. Boom height should not exceed 50 cm above the ground.

Non-ionic Surfactants: For Bahia Grass suppression and seedhead control when tank mixing with Monument Liquid, use surfactants like Wetspray® 1000 (1000 g ai/ L formulations) at 0.25% v/v or 250 mL/100 L spray mix.

Application Near and Around Monuments and Hardscape Materials: Shadow Ultra at normal dilution rates, will not stain brass, bronze, concrete, granite, marble or other types of stone. Before using Shadow Ultra around other materials, test on a small scale basis first.

Compatibility For Common Couch, Hybrid Couch and Kikuyu turf grasses only. Shadow Ultra is compatible with some formulations of products containing the following chemicals: 2,4-D amine, bromoxynil, MCPA/bromoxynil/dicamba, MCPA ester/bromoxynil, MCPA ester/bromoxynil/dicamba, MCPP/2,4-D amine/dicamba or MCPP/dicamba. However, some transient discolouration of the treated turf may occur after application of a tank mix. For the treatment of broadleaf weeds in turf with herbicides other than those indicated above, it is recommended to apply Shadow Ultra and the broadleaf weed herbicides separately, allowing at least 10 days between an application of Shadow Ultra and the broadleaf weed herbicides

RE-ENTRY PERIOD: DO NOT enter treated areas without protective clothing until spray has dried. DO NOT allow the public to enter treated areas until spray has dried.

PROTECTION OF WILDLIFE, FISH, CRUSTACEAN AND THE ENVIRONMENT: Dangerous to fish larvae and oysters. DO NOT contaminate dams, rivers, streams or stormwater drains with concentrate or used container. Wash out spraying equipment and mixing and measuring utensils with water on to grass.

STORAGE AND DISPOSAL: Store in the closed, original container in a dry, cool, well ventilated area. Do not store for prolonged periods in direct sunlight. This container can be recycled if it is clean, dry, free of visible residues and has the drumMuster logo visible. Triple-rinse container for disposal. Dispose of rinsate by adding it to the spraytank. Do not dispose of undiluted chemicals on site. Wash outside of the container and the cap. Store cleaned container in a sheltered place with cap removed. It will then be acceptable for recycling at any drumMuster collection or similar container management program site. The cap should not be replaced, but may be taken separately. 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: Harmful if inhaled. May irritate eyes and skin. Avoid contact with eyes and skin. Do not inhale spray mist. When opening the container, preparing the spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and elbow-length PVC gloves. Wash hands after use. After each day's use, wash contaminated clothing.

FIRST AID: If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 131126.

ADDITIONAL HAZARD AND PRECAUTIONARY STATEMENTS REQUIRED BY WHS:

Use only outdoors or in a well ventilated area. Wash with plenty of soap and water.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. In case of fire, use carbon dioxide, dry chemical, foam, water fog.



SAFETY DATA SHEET: Additional information can be obtained from the Safety Data Sheet. A copy can be obtained from the website: www.campbellchemicals.com.au

CONDITIONS OF SALE: Agricultural, horticultural and pastoral preparations in their application involve varying factors such as differing conditions, soil, climate and methods of application over which Colin Campbell (Chemicals) Pty Ltd (Company) does not have control. Whilst the Company believes that all goods sold by it are true to label and are effective and safe for the purpose indicated, the Company expressly excludes all conditions, guarantees and warranties, whether express, implied, statutory or otherwise, relating in any way to the goods and accepts no responsibility for any loss, harm or damage whatsoever suffered from the use of the goods for any purpose or purposes. Notwithstanding the foregoing, where any legislation implies any condition, guarantee or warranty (each, a Statutory Guarantee) and that legislation prohibits provisions excluding, restricting or modifying the application of, the exercise of a right conferred by or liability under such Statutory Guarantee, such Statutory Guarantee shall not be excluded. However the Company's liability for any breach of such Statutory Guarantee shall, if permitted by that legislation, be limited at the Company's option to the replacement of the goods or the supply of equivalent goods, or the payment of the cost of replacing the goods or of acquiring equivalent goods.

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