

CAUTION

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

Quali-Pro Marvel® Ultra

Plant Growth Regulator

ACTIVE CONSTITUENT: **120 g/L TRINEXAPAC-ETHYL**

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

Formulation type
Micro Emulsion **ME**



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CONTENTS: 1 - 20 L, 5 L

DIRECTIONS FOR USE

RESTRAINTS

- DO NOT apply to turf recovering from wear, renovation or turf affected by disease, waterlogging or other stresses.
- DO NOT use where growth regulatory effects are likely following the application of fungicide or any other material.
- DO NOT apply to turf going into or coming out of dormancy.
- DO NOT apply if rainfall is expected within 1 hour, and DO NOT irrigate turf for at least 1 hour after application.
- DO NOT apply to Kentucky Bluegrass as damage may occur.

Turf Growth Management

SITUATION	GRASSES	RATE		CRITICAL COMMENTS
		Per ha	Per 100 m ²	
Golf course and bowling greens	Bent grass	1 - 2 L	10 - 20 mL	<p>Apply QUALI-PRO MARVEL® ULTRA at least 6 hours before or after mowing and when turf is actively growing.</p> <p>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.</p> <p>Apply rates towards the highest end of the rate range when growth is vigorous or when longer periods of 4 - 6 weeks regulation are required.</p> <p>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.</p> <p>Well maintained turf surfaces are those which receive at least weekly mowing and good levels of water and fertility are maintained.</p> <p>Refer to Application section for detailed information.</p>
	Hybrid Couch	0.15 - 0.6 L	1.5 - 6mL	
Golf course fairways	Carpet Grass, Kikuyu	1.6 - 4 L	16 - 40 mL	
	Common Couch	0.8 - 1.6 L	8 - 16 mL	
	Couch varieties: Greenless Park, Santa Ana, Wintergreen	0.6 - 1.2 L	6 - 12 mL	
	Fescue, Perennial Ryegrass	1.6 - 3 L	16 - 30 mL	
Golf course short roughs, well maintained lawns, general turf surfaces	Bahia Grass, Bent Grass, Fescue, Perennial Ryegrass	2 - 4 L	20 - 40 mL	
	Buffalo Grass, Common Couch, Hybrid Couch	1 - 2 L	10 - 20 mL	
	Kikuyu	1.6 - 6 L	16 - 60 mL	
Golf courses long roughs, parks, ovals, lawns, general grassed areas	Bent Grass, Fescue, Perennial Ryegrass	2 - 6 L	20 - 60 mL	
	Buffalo Grass, Common Couch, Hybrid Couch	1 - 4 L	10 - 40 mL	
	Kikuyu	2 - 8 L	20 - 80 mL	
Bunker facing, path and garden edging, Footpath and curb side edging, Fence lines, around trees	Bent grass, Common Couch, Perennial Ryegrass	4 - 6 L	40 - 60 mL	<p>Apply QUALI-PRO MARVEL® ULTRA at least 6 hours before or after mowing and when turf is actively growing.</p> <p>On difficult to mow areas apply QUALI-PRO MARVEL® ULTRA to actively growing turf and mow 3 - 4 days after application.</p> <p>Apply in a strip approximately 25 - 50 cm wide. Use the lower rates of QUALI-PRO MARVEL® ULTRA around bunker edges and the higher rates in the other situations.</p> <p>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.</p>
	Buffalo Grass	4 L	40 mL	
	Couch varieties: Greenless Park, Santa Ana, Wintergreen			
	Kikuyu	6 - 8 L	60 - 80 mL	

Winter grass (*Poa annua*) Management

SITUATION	GRASSES	RATE		CRITICAL COMMENTS
		Per ha	Per 100 m ²	
Golf course fairways, Golf course greens	Winter grass (<i>Poa annua</i>)	0.4 - 1 L	4 - 10 mL	<p>See instructions under Winter Grass (<i>Poa annua</i>) Management for reduction of <i>Poa annua</i> swards in Bent Grass golf greens.</p> <p>See Golf course greens section above for application recommendations</p>

Bahia grass (*Paspalum notatum*) Suppression and Seedhead Control

SITUATION	GRASSES	RATE		CRITICAL COMMENTS
		Per ha	Per 100 m ²	
Common Couch, Durban Grass, Hybrid Couch, Qld Blue Couch, Zoysia only In golf courses long roughs, lawns, median strips, ovals, parks, roadsides, general grassed area	Bahia grass (<i>Paspalum notatum</i>) suppression and seedhead control	2 - 4 L Plus 75 mL/ha Monument* Liquid Turf Herbicide Plus 0.25 v/v non-ionic surfactant (such as Wetspray® 1000)	20 - 40 mL Plus 0.75 mL/ 100 m ² of Monument* Liquid Plus 0.25 v/v non-ionic surfactant (such as Wetspray® 1000)	<p>Apply during summer when Bahia Grass produces seedheads.</p> <p>DO NOT apply more than 2 consecutive applications of Monument Liquid per season.</p> <p>See instructions under Bahia Grass (<i>Paspalum notatum</i>) Management.</p> <p>For control of Bahia Grass seedheads in established couch areas.</p> <p>Refer to Application section for detailed information.</p> <p>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.</p>

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

QUALI-PRO MARVEL® 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 QUALI-PRO MARVEL® 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 QUALI-PRO MARVEL® 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 QUALI-PRO MARVEL® 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 QUALI-PRO MARVEL® ULTRA. Since *Poa annua* is more sensitive to QUALI-PRO MARVEL® ULTRA than Bent Grass, QUALI-PRO MARVEL® ULTRA can be used to reduce the competitiveness of *Poa annua* in Bent Grass golf greens. QUALI-PRO MARVEL® ULTRA can be integrated into existing *Poa annua* control programs. Low rates of QUALI-PRO MARVEL® 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 QUALI-PRO MARVEL® 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 QUALI-PRO MARVEL® ULTRA to couch will enhance the establishment of cool season turf grasses. QUALI-PRO MARVEL® ULTRA is foliarly absorbed, so germination and seeding growth is not affected. Apply QUALI-PRO MARVEL® ULTRA before verticutting, scalping, spiking or other similar operations to the couch. Apply QUALI-PRO MARVEL® ULTRA 1 to 5 days before seeding.

MIXING

QUALI-PRO MARVEL® ULTRA is a micro emulsion concentrate (ME) with minimal odour as the product does not contain petroleum solvents. QUALI-PRO MARVEL® ULTRA mixes completely with water and may be tank mixed with many commonly used fungicides and liquid fertilizers. Add the required quantity of QUALI-PRO MARVEL® 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, or 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 QUALI-PRO MARVEL® ULTRA to a known area of turf. Apply between 2 and 10 L water/100 m² 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 - 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 - 500 L/ha. For best results use medium [XR Teejet* (11004 to 11008)] to 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.

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:

QUALI-PRO MARVEL® ULTRA, at normal dilution rates, will not stain brass, bronze, concrete, granite, marble or other types of stone. Before using QUALI-PRO MARVEL® ULTRA around other materials, test on a small-scale basis first.

COMPATIBILITY

For Common Couch, Hybrid Couch and Kikuyu turf grasses only

QUALI-PRO MARVEL® 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 QUALI-PRO MARVEL® ULTRA and the broadleaf weed herbicides separately, allowing at least 10 days between an application of QUALI-PRO MARVEL® 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, CRUSTACEANS AND ENVIRONMENT

Dangerous to fish larvae and oysters. DO NOT contaminate dams, rivers, streams or storm water drains with concentrate or used container. Wash out spraying equipment and mixing and measuring utensils with water onto 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 spray tank. 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 13 11 26.

SDS

If additional hazard information is required refer to the Safety Data Sheet (SDS). A Safety Data Sheet for QUALI-PRO MARVEL® ULTRA is available at adama.com or Call Customer Service on 1800 423 262.

CONDITIONS OF SALE: The use of QUALI-PRO MARVEL® ULTRA Plant Growth Regulator being beyond the control of the manufacturer, no warranty expressed or implied is given by Adama Australia regarding its suitability, fitness or efficiency for any purposes for which it is used by the buyer, whether in accordance with the Directions for Use or not. Adama Australia accepts no responsibility for any consequence whatsoever resulting from the use of this product.

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