



# Marvel<sup>®</sup> 175 EC

## Product Guide



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# Trinexapac ethyl EC just got a whole lot better!



## Marvel® 175 EC at a glance

Marvel® is a differentiated plant growth regulator formulation containing 175 g/L of the active ingredient Trinexapac ethyl. The Marvel® formulation contains a unique adjuvant system providing a point of difference over other EC formulations in the market. As a result of this innovation, Marvel® provides enhanced uptake, improved active ingredient distribution and consistency and maximises reliability in performance every time you apply it. Marvel® is registered for the regulation of leaf and stem growth, as well as a turf management aid across a very broad range of turfgrass species and growing regimes.

### Key features and benefits

- More efficient formulation containing a unique adjuvant system allowing for the active ingredient to be fully utilised, whilst reducing environmental losses
- More consistent response due to improved reliability of the product
- Low odour formulation – no petroleum solvents are present in the formulation, preventing odour and skin sensitivity issues
- Marvel is completely water soluble and is therefore tank mix flexible with most commonly used turf fungicides, insecticides and liquid fertiliser products
- Cost effective for broadacre usage such as on fairways and sportsgrounds
- Helps improve turf colour, lateral stem and root mass development
- Manages a healthy plant by reducing vertical growth whilst improving blade health and durability
- Increases quality of final cut, particularly in high maintenance situations
- Reduced clippings for efficient mowing and reduction in waste.

### How Marvel® 175 EC works

The active ingredient in Marvel® 175 EC, Trinexapac-ethyl inhibits gibberellic acid biosynthesis late in the pathway. This results in a significant reduction in cellular elongation and internode length. After application, new growth has shortened internodes, more tillers, and reduced vertical growth compared to untreated turf.

Trinexapac-ethyl is rapidly absorbed by the plant's leaves and crowns. The majority of uptake occurs within one hour of treatment. Absorption through roots is negligible, as the product is broken down in the soil environment quickly. Marvel is transported acropetally (upwards) in the xylem to the meristem, where cell elongation occurs. The systemic translocation properties of Marvel ensures even distribution of the active ingredient within the plant tissue.

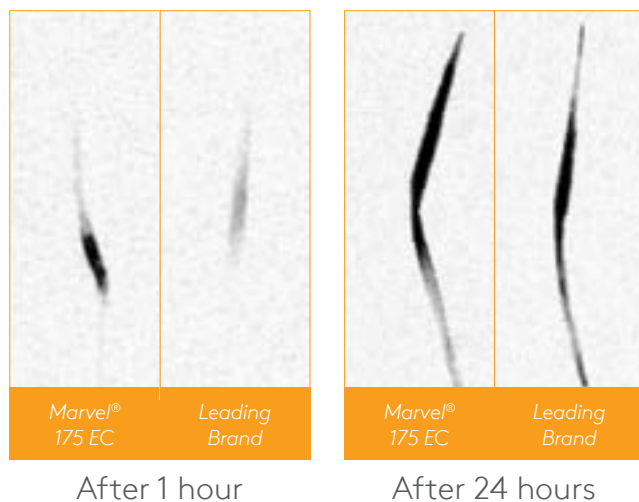
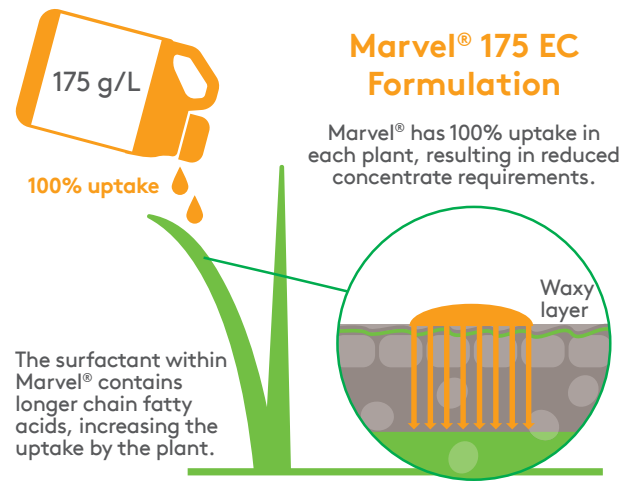
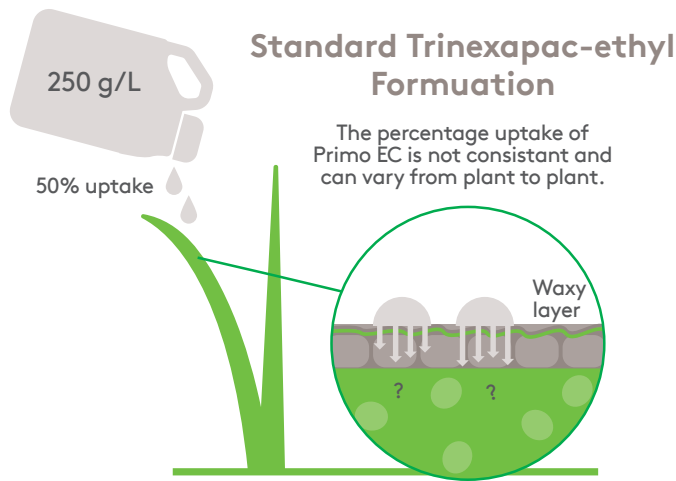


## The Marvel® difference

### The unique Marvel® 175 EC adjuvant system

The formulation of Marvel® 175 EC results in an increased affinity to the waxy plant cuticle due to the longer chain fatty acid adjuvant. This unique component only found within the Marvel® formulation significantly increases the droplet surface area on the leaf, allowing for enhanced coverage and improved foliar uptake efficiency and overall performance at lower rates of active ingredient output.

As a result of this formulation difference, field trials in local and overseas markets have shown that Marvel® 175 EC excels over competitor Trinexapac-ethyl EC products. In fact, field trials have shown a significant improvement (up to 30%) in performance over the conventional formulations currently used in the turf marketplace.

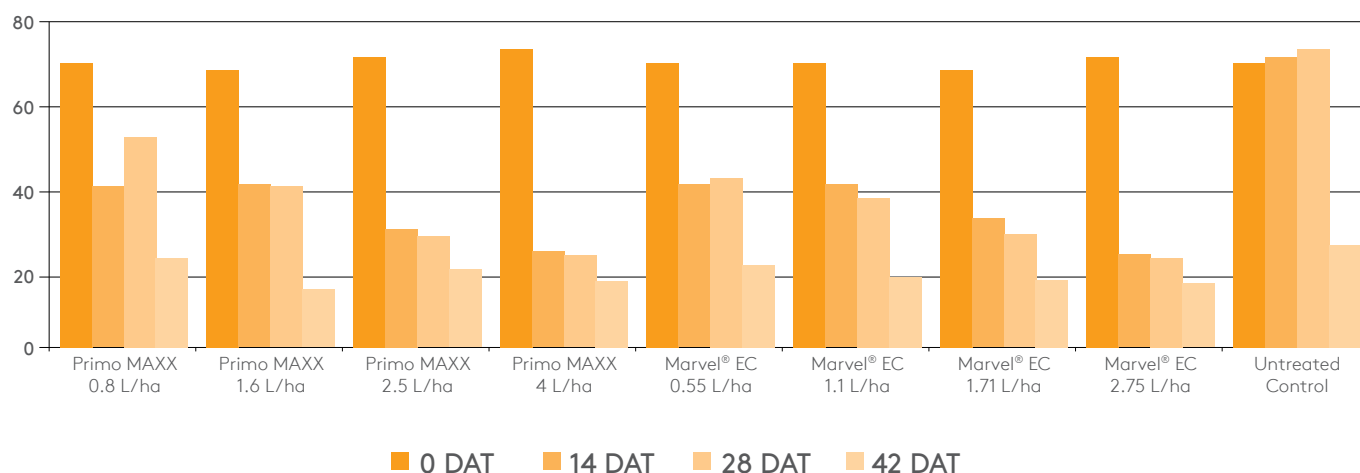


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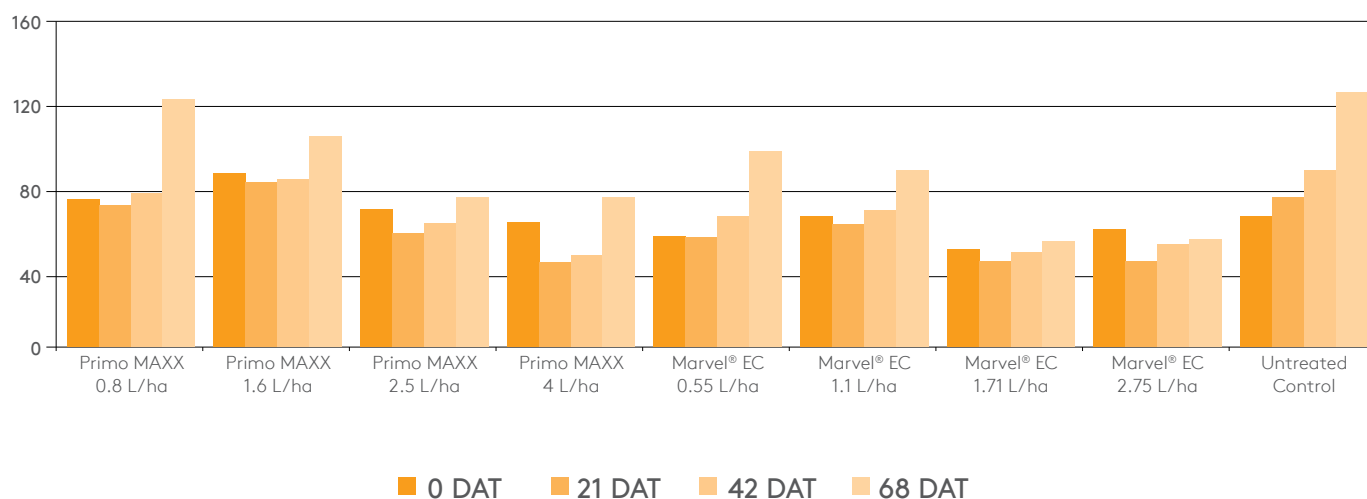
The dark areas indicate Trinexapac ethyl presence in the foliage at 1 hour and 24 hours after treatment. Clearly, the Marvel® formulation has moved into the plant faster, reducing environmental losses, whilst providing quicker and more effective performance over the leading competitor in the marketplace.

## Trial results

Clipping yields (g) of Common Couch (*Cynodon dactylon*) turf following application of Marvel® 175 EC and Primo MAXX.



Clipping yields (g) of kikuyu (*Pennisetum clandestinum*) turf following application of Marvel® 175 EC and Primo MAXX.



The full efficacy reports of the field trials above can be supplied upon request. Please contact Adama Australia for more information. Trials conducted by A. Leggett, Amgrow.



### Improved formulation consistency with Marvel® 175 EC

Another unique advantage of Marvel® 175 EC is its consistent formulation quality. The below demonstrations compare Marvel® 175 EC to the industry standard Trinexapac EC product poured into a beaker neat, and then diluted in water. After this, the diluted product was poured out and the residue on the beaker compared. On all occasions, Marvel® 175 EC showed higher quality formulation characteristics over the current industry standard product.

This also highlights the superior consistency of the active ingredient distribution in Marvel® 175 EC compared to competitors. This unique formulation benefit ensures improved active ingredient solubility in the spray tank and in turn optimises coverage of the leaf when applied, meaning ideal performance, every time you apply.

### Marvel® 175 EC key application information

Marvel® 175 EC is safe for use on a range of turfgrass species including; Common and Hybrid Couch, Kikuyu, Bentgrass, Carpetgrass, Buffalo, Fescues, Perennial Ryegrass and Poa annua.

The rates recommended on the label are designed to give approximately a 20 - 50% reduction in clippings over a 2 - 6 week period. In practice, the amount of growth regulation achieved will vary due to environmental conditions and turf management regimes. As a result, it is likely that application rates will need adjustment to match growing conditions, management practices and the quantity of growth regulation required.

Repeat applications can be made as soon as turf resumes growth or more suppression is desired. Marvel® 175 EC growth regulator should be applied to actively growing turf, at least 6 hours before or after mowing. Good mowing practices prior to application are required to maximise performance and achieve quality turf swards.



### Key Use Rates\*

Golf Greens	275 mL - 1.4 L/ha (including Poa management uses)
Fairways	Couch: 0.4 - 1.0 L/ha Kikuyu: 1.0 - 2.75 L/ha Cool Season: 1.0 - 2.0 L/ha
Short Roughs and Well Maintained Lawns	0.7 - 4 L/ha
Long Roughs, Parks, Ovals, General Turf Areas	0.7 - 5.5 L/ha
Bunker Facing, Edging, Fencelines, Around Trees	2.75 - 5.5 L/ha

\*This information is not intended to replace the product labels. Always read the complete product label appearing on the container before opening or using products.



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