



# MP SHIELD

## PROTECTS AGAINST DRY PATCH FORMATION BY CONDITIONING SOIL

### UNIQUE FEATURES

- Significantly increases water use efficiency
- Reduces water loss by creating an even wetting front
- Hydrophylic action holds water to prevent dry patch
- Lipophylic action stops leaching of valuable wetters
- Drains wet soils to return air to pore spaces
- Stable polymeric wetter is extremely safe to turf
- Versatile blend of actives – curative and preventative

### TECHNOLOGY

MP SHIELD helps speed penetration of applied moisture, as well as protecting soil against dry patch by ensuring uniform rewetting for an extended period – from 1-3 months depending on soil type and application rate. To further boost water holding in free draining soils, apply MP SUSTAIN 7-10 days after MP SHIELD has been applied.

By reducing surface tension, MP SHIELD increases the coverage of water around individual soil particles and holds it for use by plant roots. At the same time MP SHIELD promotes the drainage of free soil water to allow the return of air to soil pore spaces.

### GENERAL INFORMATION

Dry patch results when soils approach wilting point and soil fungi produce waxy secretions that coat surrounding soil particles. Hydrophobicity results and presents as isolated areas of hard to wet soil. Subsequent runoff and ‘fingering’ at the wetting front causes turf to wilt and eventually die.

### USE PATTERNS

MP SHIELD can be used on all soils, from heavy clays to pure sands. Wherever turf roots inhabit soil, the oils and organic residue they leave provide an opportunity for MP SHIELD to bind and remain, working longer and stronger than conventional wetting agents.

### PRODUCT INFORMATION

#### Composition

100% Liquid concentrate

### PRODUCT SPECIFICATIONS

Long chain polymeric wetting agent concentrate

Situation	Rate	Longevity	Comments
Greens & fine turf, lawns & landscape	20 L/ha	1–3 months	Apply every 4-6 weeks to at risk surfaces. MP SHIELD is a polymeric wetting agent that helps soil to ‘rewet’ after extended dry periods.
Fairways, sportsturf, lawn turf & landscape	20–40 L/ha	2–4 months	Application through boom spray should use a minimum dilution of 1 part MP SHIELD to 10 parts water (20 L MP SHIELD in 200 L of water). Additional irrigation (3-6 mm) should be applied to ensure the MP SHIELD is thoroughly watered into the soil profile.

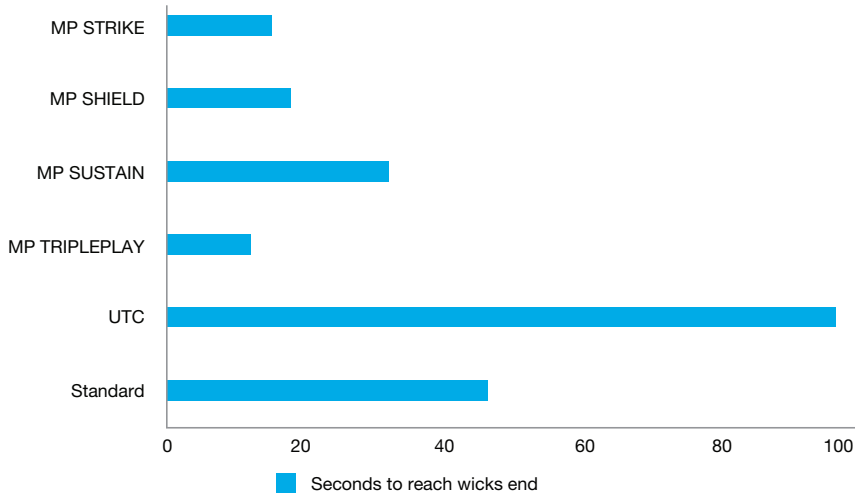
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## TRIAL INFORMATION

### CAPILLARY MOVEMENT (WICKING) TEST



#### Test description

This is an industry standard test for surfactant efficacy, where a hydrophobic wick is placed in the candidate solution and the time it takes for the wick to drop to the bottom is measured.

This test shows how wetting agents improve sideways movement of water in soil by capillary movement. This ensures the uniformity of a wetting front so that fingering of drainage around hydrophobic zones is minimised.

#### Results

MP SHIELD shows excellent capillary movement when compared to other wetting agents, and especially against the untreated control. The added capacity for MP SHIELD to allow for re-wetting time and again makes it ideal for program use in protection against dry patch formation.

Apply MP SHIELD monthly at 20 L/ha for turf surfaces at most risk of dry patch. Or up to 40 L/ha for extended longevity of protection on fairways and sportsturf – out beyond 3 months.

## SOIL MOISTURE RANGE

**MP STRIKE** enhances penetration which is a fundamental requirement for soil moisture care.

When both penetration and protection against dry patch is required, the solution is **MP SHIELD**.

To promote soil moisture holding on free draining soils, **MP SUSTAIN** is designed as a booster to extend the gap between irrigation events.

**MP TRIPLEPLAY** combines all three products in a dry granular form.

MP SUSTAIN is not available in New Zealand.

**PENETRATE.  
PROTECT.  
PROMOTE.**