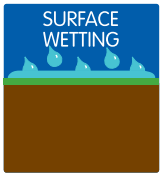
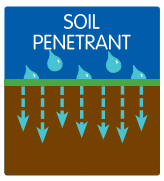
PROPEL-R

Wetting agent – advanced generation of water management solutions





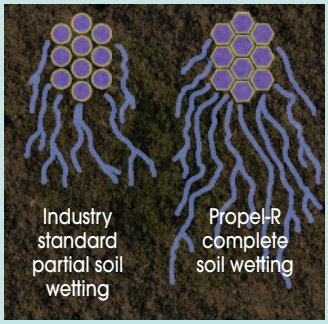
WHY PROPEL-R

- New technology with soil micelle interaction
- Advanced formulation gives complete soil wetting
- Reduces soil water repellency to zero
- Transports moisture away from the surface
- Improves water and air balance in the rootzone
- Enhances the soil rhizosphere diversity and activity

RTechnical

The unique formulation of **Propel-R** uses distinctive micelles to attract both water and hydrophobic soil particles together. The micelles are arranged in rods and multiply significantly the sites in which water can be reserved for use by the plant roots and other beneficial organisms in the rhizosphere.

The micelle rods also have a lower friction coefficient than standard wetting agents, which allows **Propel-R** to pass more rapidly into the soil profile. The speed at which the wetting agent is dispersed through the soil profile greatly improves the reaction to Dry Patch flare-ups.



The arrangements of the micelle rods are hexagonal in structure, which ensure a consistent and complete permeation of moisture within the root-zone

Product Detail

Propel-R Liquid

Contains: 100% polysorbate polyoxu ethylene co-polymer-linked surfactants
Pack size: 10 litres. Also 120 & 200 litre drums
Pack coverage: 5,000 sq.m
RT order code: 0423960/010

Propel-R Granules

Pack size: 20 kg
Pack coverage: 1,000 sq.m
RT order code: 0423966/020

Propel-R Tablets

Pack size: 25 tablet
Pack coverage: Variable
RT order code: 0423963/ SD Tablets
0423962/ HD Tablets

APPLICATION RATES			
Area of use	Propel-R	Water Volume	Area
Golf greens, tees, bowling greens	1 litres	35-45 litres	500m²
Golf fairways, sportsfields	20 litres	700-900 litres	1 ha

APPLICATION RATES		
Area of use	Propel-R Granules	Area
Golf greens, tees, bowling greens	10kg	500m²
Golf fairways, sportsfields	200kg	1 ha

RECOMMENDED PERIOD OF USE											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

How Propel-R works

Prevention is always better than cure Turf grass that has been drought-stressed will exhaust valuable reserves in an attempt to restore its natural balance of strength and health, leaving it prone to diseases and the inability to withstand and recover from mechanical injury. Maintaining a balanced air/water ratio in the root zone will inhibit the development of hydrophobic lipids that can have such a weakening affect on plants and preserve the plants metabolism and become more resistant to stress.

Regular applications of **Propel-R** will ensure the rootzone is in the best condition to supply the necessary moisture and nutrient transport for optimal plant development.

Soil Water Repellency Results

Rooting: When turf is severely affected by Dry Patch the rooting of the grass can be significantly restricted. Plants with a shallow and poorly developed rootzone are in turn more susceptible to drought and will wilt and eventually die. **Propel-R** keeps moisture in the tiny spaces between sand and soil particles and encourages the plant root to produce fine root hairs that can utilise this moisture and thus minimise the effects of drought stress.

Trial 1. Water Efficiency

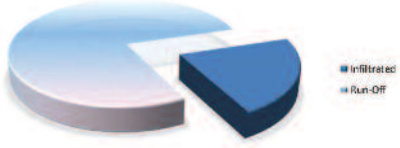
(Mean of trials on replicated plots)

Comparison of Propel-R with the industry standard and untreated plots* to study the ability of rootzones to receive and benefit from irrigation.

Analyses of the percentage of water entering the rootzone after 20 minutes. Measurements were taken every 20 minutes after an irrigation cycle to determine water receptivity.

Untreated = 2%

Industry standard = 16%



Propel-R = 22%

Propel-R gave the greatest benefit

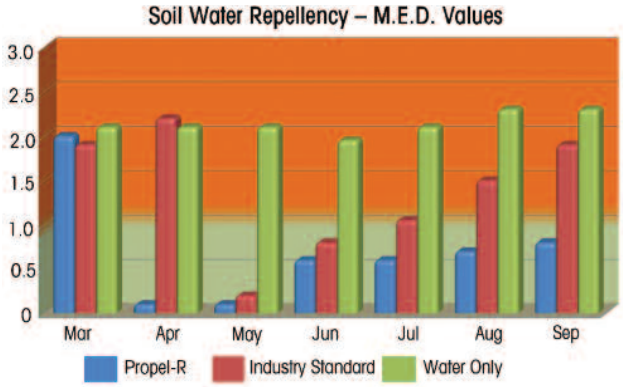
* Trials took place on plots with rootzones that had an M.E.D Value of 2.4

Trial 2. Soil Water Repellency – M.E.D Values

(Mean of trials on replicated plots)

Trial to compare Propel-R with the industry standard and untreated plots* to study the response times of water entering the rootzone and the maintenance of an M.E.D value below the critical 1.0 level.

MED = molarity of ethanol droplet
MED values typically range from 0 (no hydrophobicity) to 4 (extreme hydrophobicity)



Initial application made in March when the M.E.D value was 1.9. A second treatment was made after 14 days and then at monthly intervals.

Propel-R gave the greatest benefit in the speed of response and the length of time M.E.D values were kept below the critical 1.0 value level.

* M.E.D – Values ranged from 0.0 – 3.0 – Any value over 1.0 is classified as hydrophobic

PROPEL-R GRANULES

Using the same formulation as the liquid, **Propel-R Granules** has an advanced dust free, uniform granular carrier specifically developed for turf application.

PROPEL-R TABLETS & APPLICATOR GUN

Propel-R Tablets are formulated using advanced surfactant technology and are the latest development of the hose-end application. Containing Amino Acids, these tablets not only provide superior control of Dry Patch but enhance recovery of the damaged turf.

Available in both standard density (SD), and high density (HD) for use when water pressure is over 5 bar.