Soil Wetting Products
Soil Wetting

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<td>Non-ionic wetter penetrant for turf to overcome and prevent dry patch and a dew retardant.</td>
<td>A premium range of products which include soil wetters and root zone moisture management products. In addition, special purpose products for problem areas, a granular wetting agent for ease of application, and an injectable wetting agent which can be used in line with irrigation systems and an organic acid removal product.</td>
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**Premium soil moisture programme**

As stated on many of the product pages, the individual wetting agent product performances are often lifted significantly by using in a programme.

A full soil wetting programme delivers excellent results which aids in moisture movement and retention and helps to eliminate dry patch.

**A product for every situation**

PGG Wrightson Turf have a range of soil wetting products for every budget and performance level. This covers premium soil wetting products for the most high profile sites, to more economical broad acre sportsfield and fairway products. We also have products for inclusion into irrigation (fertigation) for regular wetting, products for low key country-style golf courses, granular products, and humectants.

Contact your PGG Wrightson Turf Representative who will design a programme to best suit your performance requirements and your budget.
Soil Wetting Products

Breakthru® Gold
A high penetrant surfactant for dry patch control

- Liquid soil surfactant (non-ionic)
- Re-wets severely hydrophobic soils quickly
- Spot treatment for problem areas
- Dew control
- Excellent product for initial stock dose

Benefits
- Special purpose penetrant for problem dry patch areas.
- Maintains consistent water distribution through soil profile.
- Excellent spot treatment for severely hydrophobic problem areas.
- Best used as a pre-treatment to a conventional soil wetting programme, e.g. a soil wetting agent and a soil humectant (root moisture management).
- Can be used as a dew control during disease pressure and for dew reduction in night sports.

General Information
An intense, fast acting, non-ionic soil surfactant for severely hydrophobic soils, which can be used either as a spot treatment for problem areas, as a pre-treatment to a soil wetting programme, or in boom spray equipment applied at low rates, often in a broad acre situation. This product can also be used for dew control.

Application Rates
800 ml – 3 L/ha. Use the lower rate for frequent applications every two weeks.
2.5 L/ha for pre treatment to a soil wetting programme.
As a dew suppressant, 3-5 L/ha with 1000-5000 L of water. Use the higher rate for longer term control (3 L/ha will give approximately 2 days control).
Spot Treatment: 100-500 ml/100 L water applied by knapsack sprayer as often as required.
Water rate: Use a minimum of 500 L but preferably 1000 L water/ha. The higher the application rate the higher the water rate. Apply the first application mid spring (September) and continue through to autumn (or when autumn rains resume).

Caution: Like many soil surfactants, this product can be phytotoxic when used at high rates. We recommend thorough watering in by irrigation or rainfall when using this product.

Pack Size: 5 litres
Note: Ideal for use in spot treatment of problem areas by applying through a Kalo Pro-Ap applicator.
Soil Wetting Products

Aquaforce
Highly penetrating non-ionic soil surfactant

- Premium soil surfactant
- For extreme situations with severely hydrophobic soils
- Long lasting
- Assists in breaking down hydrophobic build-up, water retention and rapid penetration
- Good even soil wetting qualities

**Benefits**
- Even initial wetting of the soil.
- Premium soil surfactant for extreme situations.
- Some humectant properties (root zone moisture attraction).
- Further enhanced when used in a programme with a penetrant (Breakthru® Gold) and a humectant (Terracare).
- Will continue to ‘re-wet’ soil for up to 3 months.

**General Information**
A premium soil surfactant for premium performance. Combines highly penetrating properties whilst having the ability to attach onto soil particles, providing a water attracting surface to assist with water passing through the profile. Less phytotoxic than many other soil wetters with excellent long term soil wetting properties. Although a low phytotoxic risk, thorough watering of all soil wetting products is recommended. As well as being an extra safety mechanism, it also enhances their performance.

**Application Rates**
20 L/ha in 1000-1200 L of water per month.
50 L/ha in 2000-2500 L of water for a 12 week programme.
Water-in well following application.

Note: The performance of this product will be enhanced by using in combination with other products in our soil wetting range as a programme. As with all soil surfactants, the earlier a programme is commenced in the spring the better the control of dry patch over the summer months. This product is ideal for use in spot treatment through a Kalo Pro-App applicator (page 142).

**Pack Size:** 20 and 200 litres
Soil Wetting Products

Restore

General purpose non-ionic soil surfactant

- General purpose wetting agent
- For applications where moderate water repellency is a problem
- Cost effective – long term wetter
- For use with lower water volumes
- Good even soil wetting qualities

Benefits

- Good, even initial wetting of the soil.
- Cost effective general purpose soil surfactant.
- Restore can be used alone or with Terracare or Hydretain® (humectants) in a monthly programme.
- Further enhanced when used with an initial penetrant (Breakthru® Gold).
- Will continue to ‘re-wet’ soil for up to 3 months

General Information

A cost effective general purpose soil wetter for moderate water repellency situations. Extremely effective when used in a programme with Breakthru® Gold (initially) and a humectant (Terracare or Hydretain®). Less phytotoxic than many other soil wetters with excellent long term soil wetting properties. Although a low phytotoxic risk, thorough watering of all soil wetting products is recommended. As well as being an extra safety mechanism, it also enhances their performance.

Application Rates

20 L/ha in 500-1000 L of water per month.
50 L/ha in 1200-2000 L of water for a 12 week programme.
Water-in well following application.

Note: The performance of this product will be enhanced by using in combination with other products in our soil wetting range as a programme. As with all soil surfactants, the earlier a programme is commenced in the spring the better the control of dry patch over the summer months. This product is ideal for use in spot treatment through a Kalo Pro-App applicator (page 142).

Pack Size: 20 and 200 litres
Soil Wetting Products

Restore Granules
Granular soil wetting agent

- Assists penetration of water into hydrophobic soils
- Provides uniform wetting to enhance efficiency of fertiliser and pesticides
- Ideal for use at renovation
- Non-ionic surfactant
- Use where broadcast application required
- Long term release

Benefits
- Ease of application – can be spread by hand for problem areas or using a fertiliser type spreader for large areas such as fairways, playing fields etc.
- Does not require watering-in as rainfall or normal irrigation is sufficient.
- Visible after application which means no areas are missed.
- Ideal for spring renovations.
- Uniform particle size for even, accurate spreading.
- Can be used in composting, potting mix and potential amendment blends.
- Diatomaceous earth particle which is capable of being “reloaded” with a boom treatment.

General Information
An easy to use high quality granular wetting agent which is easy and accurate to spread. It can be used at renovation as a soil incorporated wetting agent and then followed by a quality wetting programme such as Restore liquid and Terracare (humectant) as part of an excellent summer wetting programme.

Application Rates
1.5 kg/100 m² for monthly applications or up to 3.3 kg/100 m² for a 12 week programme.
Use the low rate for maintenance or as a base for foliar programme and the higher rate for premium results.
Note: The performance of this product will be enhanced by using in combination with other products in our soil wetting range as a programme. As with all soil surfactants, the earlier a programme is commenced in the spring the better the control of dry patch over the summer months.

Pack Size: 25 kg

Suitable for
Dry patch control in:
Terracare
A humectant to assist in water loss from the soil

- Reduces water loss from run-off
- Reduces water loss from evaporation
- Maintains soil moisture in free draining profiles
- Non-burning
- Best used in a programme with effective soil wetting products

Benefits
- Maintains moisture loss from sand profiles.
- Not phytotoxic, will not burn turf.
- Reduces turf wilting and moisture/heat stress.
- Best used in a programme with an effective soil wetting agent like Restore.

General Information
A cost effective humectant which is generally used in conjunction with a soil wetting agent like Restore, to improve movement into hydrophobic soils.

Application Rates
20 L/ha with Restore (at 10 L/ha) in 1000-1500 L of water per month.
50 L/ha in 1000-1500 L of water per month.
Water-in well following application.

Note: The performance of this product will be enhanced by using in combination with other products in our soil wetting range as a programme. As with all soil surfactants, the earlier a programme is commenced in the spring the better the control of dry patch over the summer months. This product is ideal for use in spot treatment through a Kalo Pro-App applicator (page 142).

Pack Size: 20 and 200 litres
Hydretain® Humectant
For control of dry patch, soil moisture and plant stress management

- Humectant root zone moisture management product, not a specific soil wetting agent, but does contain a wetting agent
- Non-phytotoxic, even at high rates
- Use in a programme with a companion soil wetting agent for enhanced results

Suitable for
Dry patch control or root zone moisture management in:

Benefits
- Maintain water loss from sandy profiles (drain lines/sand greens, etc).
- Compounds in Hydretain® are attracted to the root system where they attract and hold remaining soil moisture (and vapour) around the root zone.
- Non-phytotoxic, will not burn foliage.
- Reduces turf wilting and moisture/heat stress.
- The retained moisture assists by reducing the heat build-up in the root zone.
- Organic and biodegradable.
- Also contains a premium soil wetting agent to assist in even water penetration.
- Best used in a programme with a companion soil wetting agent for enhanced results.

General Information
A root zone moisture management product which coats the root system and then attracts soil moisture (often simply as vapour) from the soil to the roots. This minimises desiccation of sensitive root tips and helps maintain the root system through the summer.

Application Rates
40 L/ha per month when used on its own.
20 L/ha per month when used in conjunction with a soil wetting agent such as Restore.
Use at least 1000 L water/ha. Apply the first application mid-spring (September) and continue through to autumn (or when autumn rains resume).

Note: The performance of this product will be enhanced by using in combination with other products in our soil wetting range as a programme. As with all soil surfactants, the earlier a programme is commenced in the spring the better the control of dry patch over the summer months. This product is ideal for use in spot treatment through a Kalo Pro-App applicator (page 142).

Pack Size: 20 and 200 litres
Soil Wetting Products

Bi-Agra™

Moisture retaining aid - stores moisture around the root zone and makes it available to turfgrasses

- Made up of two components, a wetting agent for spreading water evenly and a second component to hold water
- Retains additional moisture down in the root zone away from evaporation
- Retains up to 5 times the normal amount of moisture held in the root zone at field capacity (research data provided by Sportsturf Technology)
- Is 100% active ingredient and does not contain fillers

Benefits
- Retains up to 5 times the normal amount of moisture.
- Non-burning (at label rates).
- Reduces turf wilting and moisture/heat stress.
- Long lasting.
- Reduces the frequency of irrigation.

General Information
Its unique bi-active formula provides both outstanding penetration along with superior moisture retention. Bi-Agra™’s strength is its ability to retain additional moisture in normally low water-retaining root zones. Unlike polyacrylamides which hold water tightly, Bi-Agra™ holds moisture in the soil, yet allows water availability through the normal process of osmosis as required by the roots. Bi-Agra™ should be used as a curative treatment on severely water repellent soils to assist with the rewetting of dry root zones.

Application Rates
50 L/ha
Pack Size: 2 litre hose on packs, 20 litres and 200 litres

Suitable for
Prevention of soil water loss in:
Injectaforce Water Penetrant
Blended non-ionic soil wetting agent

- Injectable wetting agent for cost effective broad acre application
- Boom sprayed or through injector pumps into irrigation
- Economical broad acre soil water penetrant for improved water movement

Benefits
- Economical option for surfactant control on fairways and broad acre parks.
- This product is very price competitive.
- Can be used as injection for inline irrigation application or boom sprayed.
- Lowers the surface tension, allowing a faster penetration of water through the turf thatch zone and soil surface.

General Information
A high performing and fast acting penetrant to improve moisture movement and reduce run-off from irrigation. Ensures irrigation water moves evenly through the soil and therefore assists in broad acre application to relieve localised dry spot (LDS) and save on water usage. It will not perform for as long as a general purpose soil wetter and needs to be applied frequently.

Application Rates
Injection: 1.8-5 L/ha monthly. Use the higher rate for more demanding areas and the lower rate for weekly irrigation cycles.
Boom Application: 3-5 L/ha per fortnight in at least 500 L of water.
Follow normal irrigation schedule and water before next morning.
Caution: Injectaforce generally doesn’t require watering in, however turf should be irrigated prior to the next morning. If applied in very dry conditions, follow-up with thorough watering.
Pack Size: 20 and 200 litres
Soil Wetting Products

OARS®

Organic Acid Removal System

- 30 day hydrating surfactant which is a non-toxic, non-ionic, non-flammable, non-corrosive and biodegradable formulation of surfactants and organic solvents.

Benefits
- Uniform movement of water into and through the soil matrix.
- Removes the cause of water repellency.
- 30 day deep hydrating surfactant – for correct water movement.
- Will not burn.
- The corrective approach to water repellency rather than a temporary fix from normal soil surfactants.

General Information
OARS® is a solution that works. Before the discovery of OARS®, the only way to manage LDS and water repellency was to mask them with hydrating surfactants and/or mechanical treatments. Aerification only affects about 5% of the surface area at one time. OARS® affects 100% of the surface area per application and has demonstrated that it removes as much as 27.5% of water repellent organic acids after just two applications. Because turf is aggressive and is continually growing, the build up of organic acids is also continual, therefore ongoing treatments are necessary.

OARS® is the only product currently available which removes the cause of water repellency. This results in a drier firmer playing surface, so turf managed with OARS® will have fewer ball marks, less mower tracks and a premium surface.

Application Rates
20 L/ha monthly or 10 L/ha combined with a full surfactant programme (monthly) - in 800 L of water/ha.

Pack Size: 9.46 and 200 litres

Suitable for
Soil Wetting Products

AquaMAXX® Pellets

100% active wetting agent/fortified kelp blend

- A convenient way to apply the proven Aqua-Aid chemistry when hand-watering and syringing.

Benefits

- Increases water penetration.
- Reduces localised dry spot.
- Helps wet hydrophobic soils.
- Reduces hand watering.
- Simple to use – no mixing.

General Information

This unique formulation of wetting agent, fortified kelp and surfactants contains no binders, salt or insoluble materials. AquaMAXX® pellets are non-ionic, 100% active and non-toxic to turfgrasses. For use in the Aqua-Aid PROportioners (refer to page 142); these pellets can be applied year-round with no phytotoxicity.

Application Rates

Insert one AquaMAXX® tablet into the clear PROportioner bowl (with or without the container) (page 142). Under average PSI of 60-90 PSI (620-827 kPa), one pellet will last approximately 1100 m² (approximately 1-3 greens depending on how much the operator (of the PROportioner) saturates the turf area).

Pack Size: Boxes of 6 (6x8 oz, 26.8 g pellets)