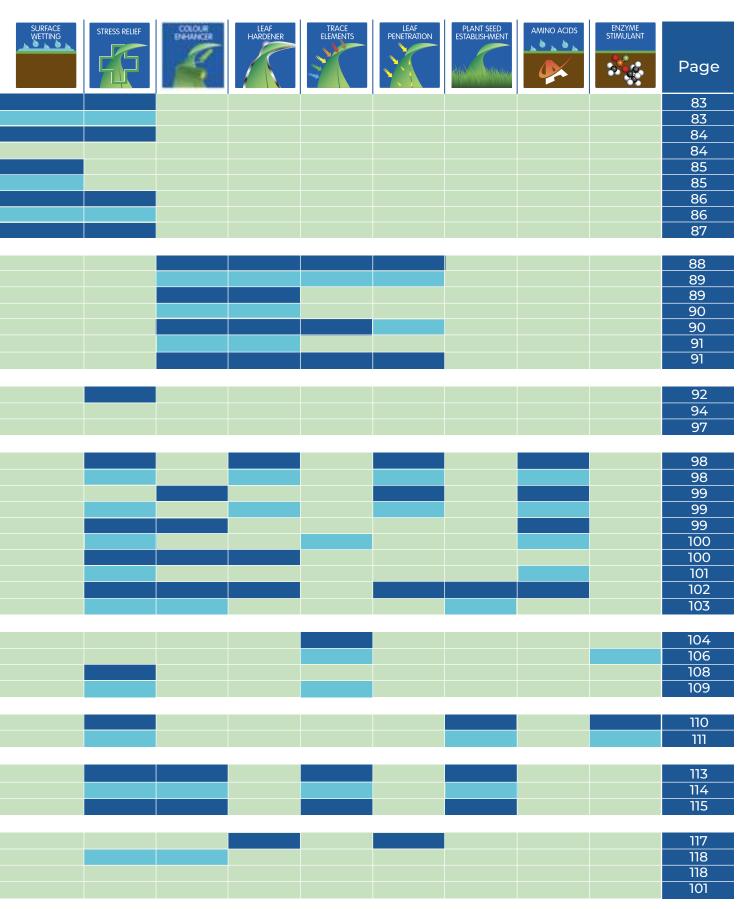




WETTING AGENTS	FORMULATION	GRANULAR FORMULATION	SOLUBLE FORMULATION	MICROBIAL BIOSTIMULANT	ROOT DEVELOPER	ROOT ZONE IMPROVER	ROOT ZONE CONDITIONER	SOIL PENETRANT
Propel-R								
Breaker Dynamic								
Breaker BioLinks								
Breaker Curative 2								
Breaker Sport								
Breaker Fairway								
HydroPro-2								
Hydrosphere								
Penetr8-R								
IRONS								
Magnet Velocite								
Magnetize								
Magnet Dynamic Lite								
Iron Complex								
Liquid Iron								
Soluble Iron								
Mosquito								
ROOTZONE IMPROVER	S							
Integrate Plus	<i></i>							
Profile								
Alize								
NUTRIENT SUPPLEMENT	MTC							
Phos-Form	113							
K-Form								
Mag-Form								
Cal-Form								
Cal-Mag								
Minor-8T								
Manganaze								
Cu-Form								
Amino-Form LX								
MicroDyne								
BIO/MICROBIAL STIMU	II ANTC							
	LANTS							
Activate R								
Activate-XL								
Humivate								
Humivate-XL								
BLACK LAYER TREATM	IENTS							
Blockade -LX								
Blockade 2000								
SEAWEED TREATMENT	ī'S							
Maxicrop								
Seaweed Compact								
SeaQuest								
OTHER TREATMENTS								
Dew-T Dew Dispersant								
Photon								
Microcal								
Spike								





# Wetting Agents

### Hydration effeciency...the way forward

Water is an essential ingredient for growth and the vitality of turf. Using our wetting agents to manage water to achieve optimal levels will enhance turf quality and reduce stresses induced by incorrect balances of air/moisture in the soil profile.

Ideally soil moisture content should be between 'Field Capacity' the maximum amount of water a soil can hold before saturation where excess water will be drained away, and above the permanent wilt point the minimum amount of water required by the plant to maintain itself. Many factors will influence these 2 points in a given rootzone, and the ability of the soil to re-hydrate itself.

Soil texture plays a significant part in determining the water capacity of a rootzone, and this combined with the biological activity in the rhizosphere can determine how receptive a soil may be to irrigation and rainfall.

To optimise the efficiency of this precious resource, Rigby Taylor has a range of highly effective wetting agents for all turf type areas enabling better management of water resources, and programming applications of wetting agents to meet specific requirements suited to individual needs.



The best way to approach hydration efficiency in the soil is a programmed approach.

Ensuring soil receptivity of moisture is essential, by allowing the rootzone to dry out exacerbates repellency in the soil. Ensuring that any rain or irrigation is targeted and allowed to flow through the root zone will enhance plant health and root development. By starting to apply wetting agents before any stress occurs ensures that soil receptivity and plant health are not compromised.

Rigby Taylor wetting agents are best applied at the start of the growing season and can be applied at variable rates dependent on conditions and current soil status. Regular subsequent applications to match soil and weather conditions can then be applied to ensure adequate hydration and a suitable growing environment. Breaker Curative 2 can be applied at any time where restoration of soil moisture receptivity is required. It is particularly useful in the Spring and Autumn when higher rainfall is anticipated that will help to flush hydrophobic residues away from the surface.



# The Rigby Taylor Range

Product	Notes	Formulation	Application Rate	Pack Size
Propel-R	Advanced generation water management solutions	Liquid Granules Tablets	10-20 ltr/ha 200kg/ha Variable	10, 120, 200 litres 20kg Box of 6
Breaker Dynamic	Proven surfactant technology for the management of water-related problems	Liquid Granules Tablets	10-20 ltr/ha 200kg/ha Variable	10, 120, 200 litres 20kg Box of 6
Breaker BioLinks	Dry Patch and root regeneration in one application	Liquid	25 ltr/ha	10, 120, 200 litres
Breaker Curative 2	Cures water repellency and reinstates water receptivity, acting directly on the causes of Dry Patch	Liquid	20 ltr/ha	10, 120, 200 litres
Breaker Sport	Concentrated and economical development of the Breaker Technolgy for use on sportsfields and fairways.	Liquid	10-20 ltr/ha	10, 120, 200 litres
Breaker Fairway	A range of surfactant formulations specifically modified for use on outfields and fairways Number 1 – Standard formulation Number 2 – Includes 2%Fe & 2% Seaweed Number 3 – Includes 2%Fe, 2% Seaweed, 2% Amino Acids & 2% Carbohydrates	Liquid	40 ltr/ha	200 litres
HydroPro 2	A non-ionic reverse block co-polymer for the control of dry Patch	Liquid	10-20 ltr/ha	10 litres
Hydrosphere	Economical non-ionic block co-polymer wetting agent	Liquid	10-20 ltr/ha	10, 120, 200 litres

# Propel-R

Soil micelle interaction is the advanced system in Propel-R that reduces soil water repellency to zero and re-hydrates the soil. Trials have shown significant and rapid restoration of soil receptivity to moisture with corresponding reduction in water repellency. The consequence of this is less wasteful run-off of rain and more efficient and reduced use of irrigation.

### WHY PROPEL-R

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

# Breaker Dynamic

Breaker Dynamic employs proven surfactant technology, modifying the surface tension of water molecules to improve the infiltration of soil. Once there, a penetrant system delivers the moisture down into the soil profile, whilst the formulation can provide a bridge between two otherwise incompatible substances; hydrophobic soils and moisture, allowing for the root zone to become re-hydrated.

### WHY BREAKER DYNAMIC

- Superb control and prevention of Dry Patch
- Maximises irrigation efficiency
- Penetration system gets active deeper, even through hydrophobic layers
- Distributes moisture efficiently through the root zone
- Encourages improved root growth
- Ideal for use in a programme with flexible application to match conditions























The Applicator Gun is designed to spot-treat individual areas of Dry Patch with the Tablet formulations. The applicator is fitted with a Cloudburst Nozzle giving large droplets and an outstanding fan pattern.

RT order code: 0423862/







### **Product Detail**

### Propel-R Liquid

Contains co-polymer linked surfactants; water surface tension reducer, soil hydration moderator, super penetrant.

Pack sizes: 10, 120 & 200 litres
Pack coverage: 5,000m² (10 litre pack)

RT order code: 0423960/010

### Propel-R Granules

Pack size: 20kg
Pack coverage: 1,000m²
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 - LIQUID** Full rate 1/2 rate Water Volume Area Area of use 1 ltr 0.5 ltrs 35-45 ltrs 500m<sup>2</sup> Greens, tees, etc Bowling greens 3 ltrs 1.5 ltrs 105-135 ltrs 1500m<sup>2</sup> Fairways, sportsfields 20 ltrs 10 ltrs 700-900 ltrs 1ha RECOMMENDED PERIOD OF USE Mar Apr May Jun Jul Aug Sep Oct Use plant protection products safely. Always read the label and product information before use



APPLICATION PATES - LIQUID

### **Product Detail**

### Breaker Dynamic Liquid

Contains a three way block co-polymer surfactant blend: water surface tension reducer, soil hydration moderator, super penetrant.

Pack sizes: 10, 120 & 200 litres
Pack coverage: 5,000m² (10 litre pack)
RT order code: 0423905/010

Breaker Dynamic Granules

Pack size: 20 kg
Pack coverage: 1,000m²
RT order code: 0423906/

Breaker Dynamic Tablets
Pack size: 25 tablets
Pack coverage: Variable

RT order code: 0423902/ SD Tablets 0423903/ HD Tablets

AFFEICATION RATES ELGOID												
Area of use	Full rate	½ rate	Water Volume	Area								
Greens, tees, etc	1 ltr	0.5 ltrs	35-45 ltrs	500m <sup>2</sup>								
Bowling greens	3 ltrs	1.5 ltrs	105-135 ltrs	1500m <sup>2</sup>								
Fairways, sportsfields	20 ltrs	10 ltrs	700-900 ltrs	1ha								
RECOMMENDED PERIOD OF USE												

Mar Apr May Jun Jul Aug Sep Oct

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# Breaker Biolinks

The synergistic combination of wetting agent and bio-stimulant improves the root zone environment whilst simultaneously encouraging the development of a healthy root system in one application. Using the proven Breaker Dynamic with its Complete Immersion Technology, Breaker BioLinks also contains an integrated source of plant growth hormones.

### WHY BREAKER BIOLINKS

- Curative & preventative activity against Dry patch – as confirmed by STRI
- Combats summer stress
- Increases plant health, optimising root development
- Balances soil moisture content
- Improves turf colour and quality
- Contains natural phytohormones











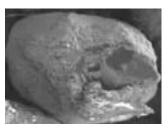


# **Breaker Curative 2**

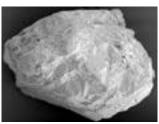
Breaker Curative 2 is formulated to restore the capacity of hydrophobic rootzones to accept water and cure the effects of water repellency. It's unique chemistry dissolves the hydrophobic materials that destroy the soils ability to evenly adbsorb water through the

### WHY BREAKER CURATIVE 2

- A unique blend of organic components that break down the hydrophobic materials which bind to sand particles
- Long lasting, effective treatment
- Extremely safe to all types of turf no adverse effects on soil microbial activity
- Ideally used as a combined programme with Breaker Dynamic Liquid



Electron micrograph of sand grain with waxy coating formed by soil inhabiting fungi of the type that cause Fairy Rings



Electron micrograph of sand grain having been treated with **Breaker Curative 2** 















Contains a three way block co-polymer surfactant blend: water surface tension reducer, soil hydration moderator, super penetrant and natural bio-stimulant.

Pack sizes: 12.5, 120 & 200 litres Pack coverage: 5,000m<sup>2</sup> (12.5 litre pack) RT order code: 0423900/012

APPLICATION RATES											
Area of use	Full rate	Water Volume	Area								
Greens, tees, etc	1.25 ltrs	35-45 ltrs	500m <sup>2</sup>								
Bowling greens	3.75 ltrs	105-135 ltrs	1500m <sup>2</sup>								
Fairways, sportsfields	25 ltrs	700-900 ltrs	1ha								
RECOMMENDED PERIOD OF USE											

Use plant protection products safely. Always read the label and product information before use

Mar Apr May Jun Jul Aug

### Contains a three way block co-polymer surfactant blend: water surface tension reducer, soil hydration moderator, super penetrant and bio remediation agent. Pack sizes: 10, 120 & 200 litres Pack coverage: 5,000m<sup>2</sup> (10 litre pack) RT order code: 0423859/010 (10 litres) (200 litres) 0423859/200 **APPLICATION RATES** Area of use Full rate Water Volume 1 litre 35-45 ltrs 500m<sup>2</sup> Greens, tees, etc Bowling greens 3 ltrs 105-135 ltrs 1500m<sup>2</sup> Fairways, sportsfields 20 ltrs 700-900 ltrs 1ha **RECOMMENDED PERIOD OF USE** Feb Mar Apr May Jun Jul Aug Sep Oct Nov Use plant protection products safely. Always read the label and product information before use

# Breaker Fairway

Breaker Fairway is a range of wetting agent formulations modified to make them ideal for fairway and outfield applications, giving solutions to water management and offering bio-stimulants in a single application.

### WHY BREAKER FAIRWAY

- Three formulations to treat specific areas and situations
- Breaker Fairway Nol is the standard formulation of wetting agent
- Breaker Fairway No2 is fortified with the inclusion of 2% Fe and 2% Seaweed
- Breaker Fairway No3 has the full suite of Bio-stimulants: 2% Fe, 2% Seaweed, 2% Amino Acid and 2% Carbohydrate











# **Breaker Sport**

Breaker Sport is a concentrated and economical development of the Breaker Technology designed specifically for use on turf mown at a height greater than 10mm, e.g. fairways, sportsfields, etc.

### WHY BREAKER SPORT

- Three key modes of action available for sportsfield and fairway applications
- Optimises water use efficiency whilst conserving surface moisture that can be lost through evaporation
- Economical application, ideally suited to large area applications
- Experience and technology developed for greens-grade wetting agents
- Enhances turf quality and consistency necessary for sports pitch performance

















# Hydropro-2

Hydropro-2 is a non-ionic block co-polymer giving economical and effective treatment for the control of localised Dry Patch, and the management of water related problems in amenity turf.

### WHY HYDROPRO-2

- Consistent control and prevention of Dry Patch
- Moves water from the surface to re-hydrate rootzone
- Reverse block co-polymer improves longevity between application
- Customized programmed approach
- Effective and economical solution to treating water repellent soils

# Hydrosphere

Hydrosphere is an economical and efficient non-ionic surfactant that can be universally applied to all types of sports turf areas enabling water to move quickly and deeply into the soil profile.

### WHY HYDROSPHERE

- Selected blended formulation provides economical and efficient applications
- Preventative action against Dry Patch when used in a programme
- Distributes moisture evenly through the upper soil profile
- Reduces irrigation requirements
- Reduces root breaks due to insufficient water percolating through the profile

























### Product Detail

Contains co-polymer linked surfactants; water surface tension reducer, soil hydration moderator

Pack sizes: 10, 120 & 200 litres

Pack coverage: 10 litres : 7,500 m² when average air temp. is 5-15°C.

5,000m<sup>2</sup>: when they are higher than 15°C.

RT order code: 0423751/010

K1 Oldel Code. 0423731/010												
APPLICATION RATES												
Area of use	Full rate	½ rate	e Wa	Water Volume			а					
Greens, tees, etc	1 ltr	0.5 ltrs	35.	-45 ltr	S	500	500m <sup>2</sup>					
Bowling greens	3 ltrs	1.5 ltrs	105	105-135 ltrs			0m <sup>2</sup>					
Fairways, sportsfields	20 ltrs	10 ltrs	10 ltrs 700-900 ltrs			1ha	1ha					
RECOMMENDED PERIOD OF USE												
Jan Feb Mar Apr	May Jun	Jul	Aug	ug Sep Oct N		Nov						

Use plant protection products safely. Always read the label and product information before use

### Product Detail Contains co-polymer linked surfactants; water surface tension reducer, soil hydration moderator Pack sizes: 10, 120 & 200 litres Pack coverage: 5,000m2 (10 litres) RT order code: 0423755/010 **APPLICATION RATES** Full rate ½ rate Area of use Water Volume Area 0.5 ltrs 35-45 ltrs Greens, tees, etc 1 ltr 500m<sup>2</sup> Bowling greens 3 ltrs 1.5 ltrs 105-135 ltrs 1500m<sup>2</sup> Fairways, sportsfields 20 ltrs 10 ltrs 700-900 ltrs 1ha RECOMMENDED PERIOD OF USE Feb Mar Apr May Jun Jul Aug Sep Oct Use plant protection products safely. Always read the label and product information before use



## Penetr8-R

An effective, rapid
pre-conditioner of
hydrophobic soils prior to
commencing a standard
wetting agent programme







### WHY PENETR8-R

- Provides rapid (5 minutes) initial wetting of dry, water repellent (hydrophobic) soils
- Moves excess water from soil surface and through the soil profile
- Increases the flow of oxygen into and through the soil profile
- Ideal for areas prone to drought, e.g. bunker tops and 'hot spots'
- Assists in 'flushing through' excessive salt concentrations
- Reduces water 'puddling' from low lying hollows

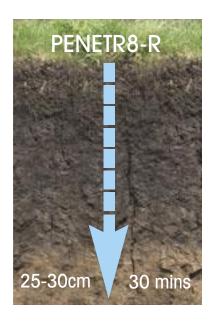


### How Penetr8-R works

Provides a 100 x reduction of surface water tension (approximately 5 times that of a standard wetting agent) which assists the downward flow of water to more easily and quickly pulled through soil profile into the drains and soakaways.

A single application will penetrate between 25 and 30cm reaching maximum depth within 30 minutes. Penetr8-R will not scorch and watering in is not required following application.







Magnet Velocite

A complex liquid Iron with trace element package producing a prolonged and rapid turf colour enhancer. Also corrects Iron and other trace element deficiencies













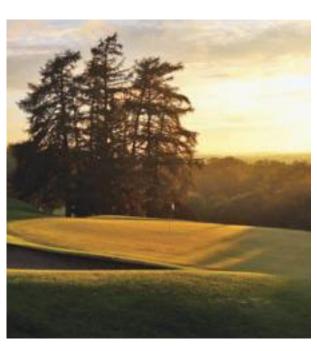
- Long term activity up to 6 weeks
- Enhanced turf colour within 12 hours due to special leaf penetrant system
- No blackening of turf or unsightly application marks
- Has a comprehensive micro-nutrient package, essential for healthy growth
- Unique tank mixing compatibilities



Natural soil Iron, though abundant, can be deficient as it is mostly present as an insoluble form which the plant is unable to take up. Magnet Velocite contains two forms of Iron to provide a rapid green up response combined with long-term activity up to 6 weeks.

Magnet Velocite contains a unique leaf penetrant system to enable consistent and rapid uptake of the Ferrous Iron to achieve maximum effect. The EDTA Fe meanwhile provides continued longer term active Iron in all situations.







# Magnetise

Chelated liquid Iron to enhance turf colour and correct Iron deficiencies



### WHY MAGNETIZE

- Can be used any time of vear
- Unaffected by soil pH









COLOUR ENHANCER

LEAF HARDENER

LEAF PENETRATION

### How Magnetize works

With its combination of leaf penetrant and EDTA chelation, Magnetize is protected from lock up in the soil and more readily available to the plant. An initial steady uptake will result in a green-up response over a 24/48 hour period, followed by continued absorption through the root system. Magnetize can be applied any time of year, however best response will be when the turf is growing particularly through the Spring, Summer and Autumn.

# Magnet Dynamic Light



Micro-granular, long lasting Iron turf colour enhancer



LEAF HARDENER

### WHY MAGNET DYNAMIC LITE

- Extremely uniform granule, ensuring even coverage
- Dual source Iron (8.6%Fe) gives extended phased release up to 16 weeks
- High potash (14%K<sub>2</sub>O) to enhance plant cell turgidity
- Relatively low Nitrogen assists plant metabolic response without forcing soft growth







# Iron Complex



Liquid iron complex for **rapid greening** at any time of the year



# WHY IRON COMPLEX



Iron complexed with Citric Acid to give a very effective and rapid green-up



- Economical application of Iron without added Urea
- Used at any time of year especially effective during autumn and winter
- Penetrating agent ensures optimum coverage and penetration of the Iron component

# Liquid Iron



**Turf greening** without stimulating growth. Hardens the grass to combat disease attack



# WHY LIQUID IRON Rapid green-up without excessive foliar growth



Helps to harden turf making it less susceptible to disease



Contains Urea plus 8%Fe





# Soluble Iron

# Mosquito







Readily-available Iron for rapid turf greening

### WHY SOLUBLE IRON

Contains 20% Fe

### How Soluble Iron works

Soluble Iron is a stable form of Iron Sulphate, suitable for applications all year round. The product provides a rapid response from a low application rate allowing for an economical method of Iron treatment. It is applied readily through conventional hydraulic spraying equipment.





**Product Detail** 







Highly concentrated **liquid Iron** for rapid and economical application

### WHY MOSQUITO

- A high specific gravity allows maximum Iron application for the amount of product applied
- Low pH ensures Iron availability to the plant
- Economic application in a liquid form

### How Mosquito works

Following application, the Iron content stimulates the plants production of chlorophyll, which in turn enhances turf colour.

Applied in the autumn, Mosquito hardens the leaf prior to the onset of winter. Care however should be taken where moss is present as, at the standard rate, Mosquito will turn the moss black. In such a situation the area should be scarified and over-seeded to re-establish the sward.



### **Product Detail**

Contains:

10%Fe (Iron applied (std rate) 6.75kgs/ha).

Specific Gravity 1.5

Pack size: 5 litres
Pack coverage: Variable
RT order code: 0115237/005

### APPLICATION RATES

Area of use Mosquito Water Volume Area

Golf greens, golf tees
bowling greens, cricket squares, sports pitches 45 litres 400-500 litres 1 ha

The quantity of product is dependent on the required effect and coverage will depend on type and condition of the grass being treated.

### RECOMMENDED PERIOD OF USE

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Use plant protection products safely. Always read the label and product information before use.



# Integrate Plus

A **soil amendment** that gives complete soil aeration without surface disruption. Integral wetting agent improves surface and rootzone penetration









### WHY INTEGRATE PLUS

- Creates additional pore spaces which:
  - 'Opens up' compacted soil surfaces
  - Speeds up draining of standing water
  - Increases capillary moisture holding capacity
  - Restores the soils water/air balance
  - Reduces incidence of Black Layer
  - Provides new channels for root growth
- Liquid and granular formulations



### **Product Detail**

### Integrate Plus

Contains: 44% water soluble polymeric

polyelectrolytes

Pack size: 5 litres

Pack coverage: 5 000-7

Pack coverage: 5,000-10,000 m<sup>2</sup> RT order code: 0113501/05 Integrate Plus Granules

Contains: Polymeric polyelectrolytes plus

an advanced soil penetrant system on a granular base

Pack size: 20 kg box Pack coverage: 1,000 m<sup>2</sup> RT order code: 0113510/020

APPLICATION RATI	ES		
_ ' '	rate Plus Liquid andard-High	d Water Volume	Area
Power sprayer	5-10 litres	250-500 litres	10,000m <sup>2</sup>
Pedestrian sprayers	250-500ml 200-400ml	12.5-25 litres 10-20 litres	500m <sup>2</sup> 400m <sup>2</sup>
Knapsack sprayer	20-40ml	1-2 litres	40m <sup>2</sup>

APPLICATION RATES												
Area of use	Integrate Plus Granules	Are										
Golf greens,	10kg	500m <sup>2</sup>										
Bowling greens	30kg	1,500										
Sportsfields	200kg	1ha										
RECOMMENDED PERIOD OF USE												
Jan Feb Mar Ap	or May Jun Jul Aug <mark>Sep</mark>	Oct	Nov	Dec								

Use plant protection products safely. Always read the label and product information before use



**Integrate Plus** is a totally unique, patented blend of anionic charged polymers combined with a surface-acting wetting agent.

Mechanical aeration affects less than 10% of the soil surface, and compaction can reduce the operating efficiency of turf anywhere from 25-50% as water does not drain, air movement stops and root growth is restricted.

Integrate Plus will restore the soil's water/air balance and return damaged soil structure to a properly functioning condition. It will assist in repairing collapsed pore spaces that prevent the draining of standing water, restore the flow of air into the rootzone, reduce the conditions that encourage Black Layer and 'open-up' new channels for root development.



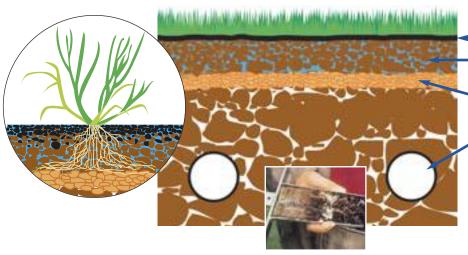
Irrigation or even rain

following treatment is beneficial. Improved results may be obtained by applying treatments immediately following mechanical aeration.

Integrate Plus is not to be mixed with Calcium Nitrate based fertilizers or products incompatible with anionic adjuvants.

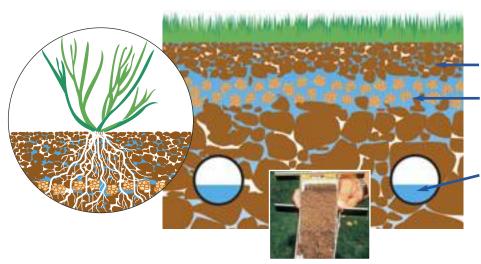
The easy to apply, dust free, granular formulation gives long term effectiveness due to the gradual release of ingredients in the granule and is ideal to apply during poor weather conditions.

### Compaction...the problem



- Anaerobic layer forms...
- because waterlogged layer has forced air out...
- while compacted fines produce impenetrable layer...
- and so there is no gravitational water flow, soil structure collapses, roots struggle to survive

### Integrate...the solution



Free movement of water and air is created...

because Integrate 'opens up' compacted layer repairing clogged and damaged pore spaces...

and so gravitational water runs freely through root zone, drainage channels remove excess water, soil structure restored



Integrate Plus Granules contain advanced polymeric, poly-electrolytes together with the most advanced soil penetrant system. The long chain poly-electrolyte system within the product is positively charged (anionic) and effectively attracts the negatively charged cations held within the CEC sites on clay and organic matter e.g. Calcium, Magnesium.

De-structured clay particles are minute and are effectively aggregated together by this process into larger crumbs. The formation of such a crumb structure within the rootzone results in improved drainage and much more pore space for root growth.





# **Profile Greens**

A porous ceramic **soil amendment** for high performance root zones







### WHY PROFILE GREENS

- Improves root zones by adding water, nutrient and air holding capacity to the soil structure
- Excellent stability still stable after 30 years
- High, permanent Cation Exchange Capacity (CEC)
- Consistent USGA particle size distribution 99% between 0.15-1.0 mm
- Proven by university studies to hold water like peat but drains like sand

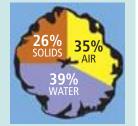


### The Profie Greens particle

Each particle is 74% pore space with approximately 39% capillary (water) pores and 35% non-capillary (air) pores. Profile Greens blended with sand or soil increases the water and nutrient holding pores as well as increasing the air and drainage pores.

**Profile's** CEC will assist in the retention of nutrients, but unlike organic materials, such as peat, will not cause layering and will increase percolation rates.

Profile Field & Fairway has a slightly larger particle size providing 78% porosity of which 41% is capillary pore space and 37% is non-capillary pore space.



# Product Detail Profile Greens Pack size: 22.68 kg Pack coverage: Variable RT order code: 0212302/ Profile Field & Fairway Pack size: 22.68 kg Pack coverage: Variable RT order code: 0212306/ RECOMMENDED PERIOD OF USE Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Use plant protection products safely. Always read the label and product information before use



### How Profile Greens works

Profile Greens physically improves the soil structure. In sand it increases water retention and nutrient-holding because of the capillary pores and the Cation Exchange Capacity (CEC). Percolation rates are increased when it is mixed with sand because of the non-capillary pore space within the product. Soil-based greens benefit by the added porosity Profile Greens provides for better drainage.

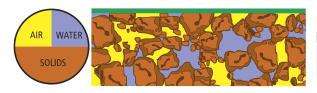
Profile Greens is very stable: Profile Greens is four times as stable as USGA requirements and has been shown not to break down. Stable particles have been found in Purdue University greens 30 years after incorporation.

Profile Greens has a high CEC: A permanent CEC of 33 meq/100g is provided by Profile Greens. It has a strong affinity for Potassium, which can leach quite readily from sand-based rootzones. Profile Greens has a low affinity for Sodium and in high salt areas it can therefore help amend the root zone by increasing drainage, allowing the flushing of greens of Sodium.

Profile Greens holds water like peat, but drains like sand: Ohio State University proved Profile Greens' 50/50 balance of capillary and non-capillary pore space will retain water and yet also let water drain. Water is held within, and drawn through, the capillary pore space of the porous ceramic particles. The non-capillary pore space lets water flow through the soil if it becomes saturated. Adding Profile Greens to sands will increase percolation rates and improve water availability.

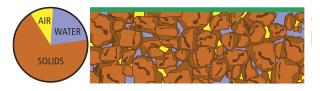
Profile Greens reduces surface algal problems: By frequent light top dressings of Profile Greens, the excellent absorptive characteristics enable it to retain the moisture which is necessary for surface algal growth.

### Soil structures explained



### THE IDEAL SOIL

Ideal soil should contain 50% solid and 50% pore space. (½ capillary or water holding pore space and ½ non-capillary or air-holding and drainage pore space)



### COMPACTED SOIL

Compacted soil reduces or eliminates the non capillary (air-holding and drainage) pore space



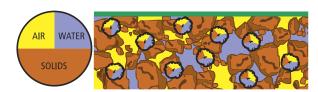
### **SAND SOIL**

Sand soils resist compaction, but they have little water or nutrient retention ability.



### SAND/PEAT MIX

(Percolation rate: 12-15" per hour). Peat has been added to sand soils to increase water and nutrient retention. The problem is that peat or other organic materials tend to reduce water percolation rates and are relatively short-lived.



### SAND/PROFILE GREENS MIX

(Percolation rate: 20-24"per hour) Profile brings sand back to the ideal soil conditions by balancing pore space. It improves percolation rates, water retention and nutrient retention.



Profile Greens should be used for high performance root zones e.g. golf greens, bowling greens whilst Profile Field & Fairway is ideal for use in most amenity areas like sportsgrounds and golf fairways,





# Alize

A **soil conditioner** of porous granules that improve moisture and nutrient retention in the rootzone, increase aeration and Cation Exchange Capacity









### **WHY ALIZE**

- Alize is a natural zeolite
- Zeolites help with the retention of nutrients in areas which include:
  - Sand root zones
  - Low existing CEC
  - Soil with high leaching potential
  - To moderate and balance nutrient inputs

How Alize works

Alize, applied either by top dressing or 'drill-and-fill' technique, confers the following benefits to turf applications:

- 1. Improves nutrient and fertilizer retention in the root zone.
- 2. Granules adsorb soluble Nitrogen and Potassium, reducing leaching of key nutreints.
- 3. Porous granules increase aeration resulting in healthier turf.
- 4. Improves establishment of newly sown turf.
- 5. Helps protect against the possibility of fertilizer scorch.
- 6. Robust granules resist soil compaction.



Zeolites are a family of crystaline aluminosilicate minerals. In common with other zeolites, Alize has a three dimensional cage-like structure consiting of SiO<sub>4</sub> and AlO<sub>4</sub> tetrehedra joined by shared oxygen atoms. The negative charges of the AlO<sub>4</sub> units are balanced by the presence of exchangeable cations which can be readily displaced by other substances, for example Ammonium ions. This phenomenom is known as 'cation exchange', and it is the high cation exchange capacity (CEC) of Alize which provides many of its useful properties.





# Nutrient Amino Range

# Phos-Form

A Potassium and Phosphorus supplement with L-Form Amino Acids

- Readily available source of Phosphorus in the form of Potassium Phosphite
- Non-foaming liquid with multisite activity
- Particularly useful in times of plant stress
- Can be used on all types of established and seedling turfgrass

# K-Form

A unique foliar applied Potassium supplement for rapid correction in plant tissue

- Contains L-Amino Acids enabling a fast uptake of Potassium into the plant
- Improves disease tolerance
- Low pH enables good compatibility including Calcium and Magnesium products



### **Product Detail**

Contains: Potassium Phosphite

(26.8% Phosphorus Pentoxide, 21.68% Potassium Oxide) with L-Form Amino Acids

Pack size: 5 litres

Pack coverage: Seedling turf: 1-2ha

Estab'd turf: 5,000-10,000 m<sup>2</sup>

RT order code: 0113141/05



### **Product Detail**

Contains: 25% Potassium (K2O) and

L-form Amino Acids

Pack size: 5 litres
Pack coverage: 10,000 m²
RT order code: 0113171/05





















PRODUCT	APPLICATION RATE kg/ha	WATER VOLUME litres/ha	JAN	FEB	MAR	APR	SUGGI MAY	ested Jun	ERIOD   AUG	SEP	OCT	NOV	DEC
Phos-Form	2.5-10	200-450											
K-Form	5	300-500											
Mag-Form	10	Min. 300											
Cal-Form	5	300-500											
Cal-Mg	10	Min. 300											

# Mag-Form

For the treatment of Magnesium deficiency in amenity turf

- Formulation enables rapid leaf and root uptake of this element
- Corrects Magnesium deficiency symptoms in the plant
- Enhances chlorophyll molecule production

### Product Detail

Contains:

Magnesium complex (7.2% MgO) with L-Form

Amino Acids

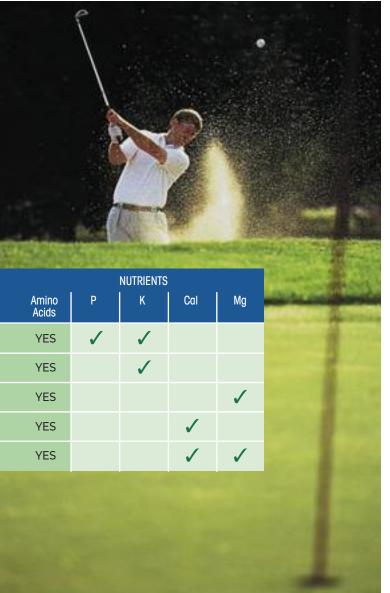
Pack size: 5 litres
Pack coverage: 5,000 m<sup>2</sup>
RT order code: 0113191/05











# Cal-Form

Rapidly absorbed Calcium supplement for the treatment of Calcium deficiency in amenity turf

- Contains L-Form amino acids enabling a fast uptake of Calcium into the plant, regardless of root zone conditions
- Low pH which enables good compatibility, including K and Mg products
- Improved disease tolerance by helping to build stronger cell walls



### **Product Detail**

Contains:

11% Calcium (CaO) and L-form Amino Acids

Pack size: 5

5 litres 10,000m<sup>2</sup>

Pack coverage: 10,000m<sup>2</sup> RT order code: 0113181/05









# Cal-Mg

A foliar applied, balanced, rapidly absorbed Calcium/Magnesium supplement for use on amenity turf

- Helps to maintain adequate levels of two vital nutrients
- Aids the plant to recover from imbalances and ensures a proper Ca and Mg ratio for the plant
- Magnesium is involved in the development of chlorophyll, the energy converting molecule in all green leaf tissue
- Provides Calcium to enable leaf tissue strengthening



### Product Detail

Contains:

5.5% Nitrogen, 6.5% Calcium (CaO), 2% Magnesium (Mg), 0.17% Boron (B), 4% free

Amino Acids Pack size: 5 litres

Pack coverage: 5,000 m<sup>2</sup> RT order code: 0113182/05











# Micronutrient Range

# Minor-8T

### A comprehensive liquid trace element package

- Complete range of trace elements coformulated with essential Amino Acids to enable efficient uptake of all nutrients
- Helps the plant recover from imbalances, caused by multiple nutrient deficiencies
- Free Amino Acids are L-Form, the most biologically effective source for plants
- Corrects non-diagnosed deficiencies for specific elements

### **Product Detail**

Trace element package and Contains:

L-Form Amino Acids

5 litres Pack coverage: 10,000 m<sup>2</sup> RT order code: 0113135/05









# Manganaze

### For the treatment of Manganese deficiency in turf

- Contains the element Manganese (Mn) to improve photosynthesis capability
- Manganese increases lignification of cell walls as a defence mechanism against diseases
- Iron Sulphate helps to lower pH and provides Iron nutrition
- Contains plant sugars providing energy source to Fluorescent Pseudomonads (beneficial antagonistic bacteria)



### **Product Detail**

Manganese (9.9% MnSO4, Contains:

Iron (Fe) 2.0%)

Pack size: 5 litres Pack coverage: 2,500 m RT order code: 0113131/05











PRODUCT	APPLICATION RATE kg/ha	WATER VOLUME litres/ha	JAN	FEB	MAR	SUGGI MAY		ERIOD AUG	SEP	ОСТ	NOV	DEC
Minor-8T	5-10	300-500										
Manganese	20	700										
Spike	10	300-500										
Cu-Form	5	300-500										



# Spike

Formulated with Potassium and Silicon to enhance plant integrity and produce a more resilient sward

- Stimulates upright growth for a cleaner, more uniform cut
- Increases green speed and improves ball roll
- ) Speeds up healing of pitch marks and wear
- Strengthens leaf blade by increasing cell wall turgidity
- Reduces water loss (transpiration) during dry periods
- Increases the number of Poa seed heads removed

# Cu-Form

A Copper nutrient supplement to enhance photosynthetic processes, respiration and lignification

- Provides protection from oxidative stresses
- Rapid nutritional correction
- ) Plays a role in diverse enzymatic reactions necessary for the mechanisms of reproduction and defence
- Assist in the development of lignin, which is needed for cell wall strength



### Product Detail

Contains: 6% Silica (Si) and 7% soluble

Potash  $(K_2O)$ 

Pack Size: 5 litres
Pack Coverage: 5,000 m<sup>2</sup>

RT Order Code: 0113176/05



### Product Detail

Contains: 5% w/w water soluble Copper

(Cu), 5% free Amino Acids,

1% w/w total Nitrogen

Pack Size: 5 litres
Pack Coverage: 10,000 m<sup>2</sup>
RT Order Code: 0113184/05















	NUTRIENTS												
Amino Acids	Р	К	Cal	Mg	Fe	Mn	S	В	Cu	Mb	Zn	Si	Sugars
YES				1	1	1	1	1	1	1	<b>√</b>	1	
					1	1							<b>✓</b>
	1											1	
YES									1				



# **Amino-Form LX**

A unique **Amino Acid based supplement** that gives turf maximum protection and recovery from stress











### WHY AMINO-FORM LX

- Improves stress resistance to, and enhances recovery from, drought, heat, cold, wear, excessive salinity and shade, water-logging, etc
- Increases photosynthesis and chlorophyl content
- Improves turf quality
- Increases root growth of stressed turf
- **I** Enhances germination
- Chelating properties gives improved absorption of nutrients
- Unique tank mixing compatibilities

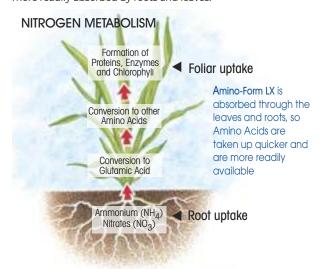
### **Product Detail** L-form Amino Acids Pack coverage: 3,333 m<sup>2</sup> RT order code: 0113155/05 **APPLICATION RATES** Amino-Form LX Water Volume Area Area of use 750ml 25-30 litres 500m<sup>2</sup> Golf greens, bowling greens 500 litres Golf tees, golf 15 litres 1 ha fairways, sportsfields RECOMMENDED PERIOD OF USE Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Use plant protection products safely. Always read the label and product information before use



### How Amino-Form LX works

Amino Acids are natural organic molecules that take part in all physiological processes. Plants store nutrients, especially Nitrogen, as Amino Acids or proteins. Under optimal growing conditions plants synthesize their own Amino Acids but at a significant expense in terms of energy. However, when stress situations occur, there is a greater demand for Amino Acids than the plant is able to meet. Amino-Form LX contains all the Amino Acids which are involved in turf health.

Amino Acids also have important chelating properties, chelates being formed by combining with important elements such as Iron, Manganese, Calcium, Magnesium and Copper. As a result, nutrients applied at the same time as Amino-Form LX will be more readily absorbed by roots and leaves.



An application of Amino-Form LX during stress periods allows considerable savings in energy which can then be channelled into essential physiological processes such as photosynthesis and protein formation (new growth).



# MicroDyne

All-in-one organic cocktail of micro- and macronutrients, chelated Irons, Amino Acids and biostimulants











### WHY MICRODYNE

- Liquid feed corrects plant deficiencies for healthy leaf and shoot growth
- Contains chelated Iron to give rapid green up without over-stimulation
- Creates the optimum food supply to boost beneficial bacterial activity
- Contains a rootzone penetrant allowing the liquid to target where it is required
- Provides relief from summer stress
- Economical high longevity from a low dosage rate



### How MicroDyne works

A low NPK organic liquid fertilizer ensures the plant is not deficient in any of the key major nutrients but ensures there is not over-stimulation leading to flushes of growth.

A soil penetrant enables the nutrients to move through the thatch layer and target the rootzone more effectively.

Chelated Irons are complex molecules that protect the biologically active ferrous Iron, preventing it from reacting with other substances and becoming unavailable to the plant. The Iron Chelates only break down once inside the plant ensuring all the Iron can be utilised by the plant.

Cold extracted seaweed ensures none of the essential properties of the seaweed are reduced.

18 Amino acids take part in the vital physiological processes such as photosynthesis and convert into essential plant proteins for new growth.

Trace element package All the micro-nutrients in MicroDyne are EDTA chelated for maximum plant uptake, and include Magnesium, Copper, Boron, Manganese, Molybdenum and Zinc.

