

### *Monthly Focus-*

### *Winter Endurance Liquids*

Whether you're managing warm season or cool season turfgrass varieties, the winter months can be challenging to say the least. Ensure plant health is at its optimum through this period of slow growth through regular applications of specialised liquid nutrients and biostimulants from Globe Growing Solutions.



Reinforce is a specifically formulated liquid blend of silica and potassium designed to provide a strong hard wearing turf grass blade. Silica and silicon are some of the most abundant minerals found in Australian soils, with only oxygen being more common. However much of the silica found in soils is present in insoluble forms like silicon dioxide or iron and aluminium silicates that are not available for plant uptake. Despite this abundance of soil silicon, chemical unavailability, high rainfall and low CEC soils will often result in lower than ideal levels of this nutrient within turfgrass soils.

While silica possesses no immediate growth response similar to many other plant nutrients, it does possess important characteristics when it comes to plant strength and cell structure. The accumulation of silica in epidermal cells and in cell walls throughout the plant results in the development of more upright and erect leaf blades and a thicker, stronger cuticle layer on turf foliage. This helps limit non-stomatal transpiration and water loss and leads to a stronger, more robust plant that can withstand harsh winters and prolonged exposure to low temperatures. The added potassium in Reinforce also assists in winter strengthening and pre-stress conditioning allowing turf managers to maintain a quality surface year round. Research has shown that silica accumulation in plant cells can assist in reducing fungal attack by increasing cell wall thickness reducing the ability of fungal hyphae to penetrate cells.



Noculate Liquid is a proprietary blend of premium liquid biostimulants containing beneficial microorganisms, humic acid, important catalytic vitamins and kelp. These unique components all work in synergy to perform specific roles within the turf plant, and within the soil ecosystem. The combined effects of these unique ingredients help to improve turf tolerance of environmental conditions and other stresses. Noculate Liquid contains a high analysis of beneficial microorganisms including bacteria and fungi proven to improve plant health, particularly throughout the winter months when biological activity is traditionally low. This assists in stimulating soil biochemical activity, optimising the release and availability of nutrients, and promoting beneficial soil chemical conditions conducive to plant growth.

### **Components and benefits**

- *Bacillus* spp. beneficial bacteria increase resistance to environmental extremes such as frosts and other winter stresses. Assists in solubilising minerals for improved plant availability within the soil.
- *Trichoderma* spp. fungi aid in decomposing organic matter and improving soil structure for a well aerated root zone throughout the cool, wet months. As mycorrhizal fungi the *Trichoderma* colonise the root zone assisting in the solubilising of minerals and enhancing pathogen resistance.
- Vitamins derived from yeast enhance plant growth and metabolism through the catalysis of enzymatic reactions.
- Humic Acid increases CEC, promotes microbial proliferation and contains plant essential metabolites and trace minerals.
- Kelp Extract increases mineral uptake and facilitates translocation of materials within leaf tissue. Auxins and cytokinins contained in kelp also help to improve root vigour and aid in environmental stress resistance.



Kelpro is a powerful concentration of auxins and cytokinins that work to accelerate plant root development and stimulate root branching and density. Kelpro provides a plant hormone package with many associated stress resistance benefits, making it the ideal product for application prior to and during times of environmental stress such as during winter and hot summers. Kelpro is based on sargassum kelp which is among the fastest growing plants on the planet. The growth behaviour of sargassum kelp is driven by a powerful concentration of auxins and cytokinins which stimulate rapid growth and development within the plant. Kelpro is derived from pulping sargassum kelp to produce 35% Kelp loading and a product with unmatched levels of auxins and cytokinins when compared to competitor products. Kelpro is for the promotion of plant growth at establishment, routine maintenance and when plants are under environmental stress.

### **Plant Responses**

- Improved shoot and root growth
- Increased root density and vigour
- Assist plant in managing disease, insect and Nematode attack
- Nematode management
- Improved salt and drought tolerance
- Improved cold tolerance
- Enhanced Photosynthesis

## Seasonal Focus

### Javelin Broadleaf Herbicide

Javelin Selective Herbicide is a broad spectrum, multi-mode of action turfgrass herbicide from Barmac. The tried and true combination of the active constituents MCPA, Clopyralid and Diflufenican offers a reliable and cost effective option for broad acre broadleaf weed control. Containing three actives, Javelin has two modes of action which makes it ideal for use in resistance management. The multiple modes of action also result in broad spectrum weed control for efficiency in applications. In addition to its post emergent properties, Javelin also possesses some residual control over key winter weeds. Winter flat weeds can be especially difficult to control as turf begins to slow down and go into dormancy, the competition that weeds normally face slackens. Javelin provides turf managers with a one stop option to tackle troublesome winter weeds.

#### Some tips in using Javelin most effectively are:

- Use a surfactant for difficult to wet weeds to maximise coverage and herbicide uptake and penetration.
- Apply early in the season when weeds are actively growing, don't wait until weeds have gone to seed.
- When using on ST buffalo varieties test on a small area first to observe discolouration that may occur.
- Always shake the container prior to use to avoid settling out.
- Use a spray indicator dye such as Big Foot to ensure spray overlap does not result.

Javelin is available from Globe Growing Solutions in 10L packs, with an application rate of 5L/ha.

### Fountainline Line Marking Equipment

For turf managers hosting winter sports, the constant requirement to keep grounds marked up and well presented can be a battle during the winter months. With heavy player traffic, prolonged surface wetness and increased presence of bare areas, turf managers need a line-marking paint that they can rely on for longevity and clarity.

Globe Growing Solutions are Fountainline's Official National Turf Industry Distributor for the Fountainline range of paint and sportsturf line marking products. For over 70 years Fountainline has continued to produce innovative and technologically unique products. The range of Fountainline paint applicators has continued to grow to provide turf managers with efficient methods for the application of linemarking paint, as well as providing premium quality sportsturf marking paint at competitive prices. Speak to your Globe Client Manager about the Fountainline range of products that best suit your sporting venue.





During the cooler months most turfgrass varieties begin to slow down their growth. This paired with higher precipitation and reduced evaporation mean that turf surfaces can become saturated and may have difficulty shedding excess water. Many turf managers think that wetting agents are only useful during dry conditions to reduce water repellency, hydrophobicity and localised localised dry spots. Revolution will cause you to think again.

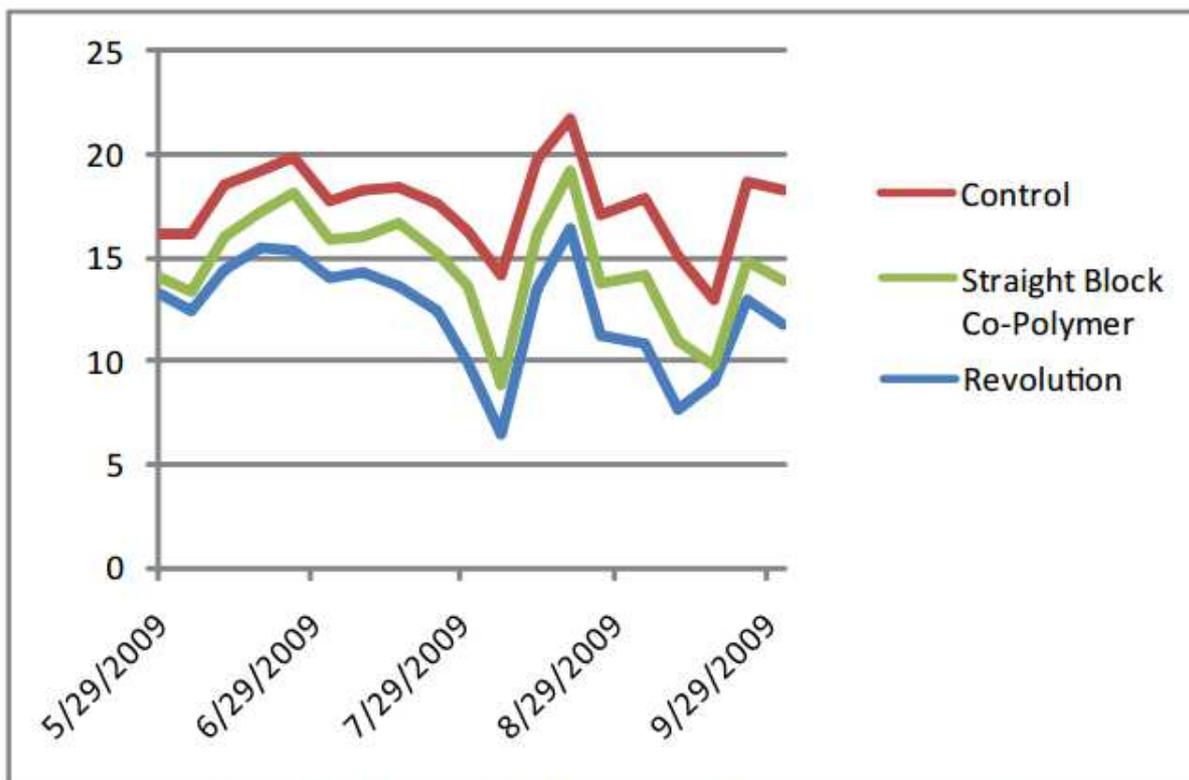
Revolution is much more than a wetting agent, in fact it is the only patented soil surfactant technology that promotes plant health and surface playability by balancing air-to-water ratios in the soil under both dry and wet conditions. You can control the amount of water you apply with irrigation when conditions are dry, but what do you do when it rains for three weeks straight? Revolution can help when the rain won't stop, making it the ideal fit in a winter turf management program to assist in reducing profile saturation and promoting healthy turf.

Revolution significantly lowers soil moisture levels during excessively wet conditions. Research conducted at the University of Wisconsin-Madison in the US revealed that plots treated with Revolution had statistically lower soil moisture levels than untreated plots on every sampling date. In addition, plots treated with Revolution also had significantly lower soil moisture levels than plots treated with a common class of surfactant chemistry used in many other wetting agent products on almost every sample date.

Less surface moisture for drier, firmer, more uniform playing surfaces.

Increased oxygen levels in the soil during wet conditions for better root respiration.

Better root-zone environment under all conditions for healthier turf.



Soldat, Sand-Based Research Putting Green, University of Madison-Wisconsin 2009

**Speak to your local Globe Client Manager for more information about our range or free call**

**1800 244 300**

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