ProloNg® technology

Nitrogen efficiency

ProloNg[®] fertilisers are formulated to overcome the problem of loss of applied nitrogen (N) by volatilisation, de-nitrification and subsequent leaching and are ideal for all sports turf applications.

Researchers estimate up to 50% of nitrogen applied worldwide is lost to the environment rather than utilised by plants. The naturally occurring enzyme 'urease' works to break down urea into a form that can volatilise causing a loss of nitrogen. Leaching of nitrate can also be a significant loss and damaging to the environment. ProloNg[®] uses technology that actively shields and manages nitrogen in the soil at molecular level. The shield prevents the action of urease on applied nitrogen and slows nitrification. This allows the plant improved access to stable forms of nitrogen throughout the growing season and without destroying the spectrum of naturally occurring soil bacteria and enzymes. ProloNg[™] technology is biodegradable, water soluble and leaves no adverse environmental footprint.

ProloNg[®], by preventing nitrification, eliminates lush plant uptake of nitrates. This results in less flushes of unwanted growth, and reduction in soft tissue (stored protein in leaves) and therefore reduced disease susceptibility. ProloNg[®] manages your nitrogen increasing nitrogen use efficiency, enabling prolonged availability of applied nitrogen and ensuring root zone bio-diversity is maintained.

Benefits of **ProloNg®** include:

- Prolonged Nitrogen availability from single application
- Improved utilisation and plant take up of applied Nitrogen
- Promotion of tillering, increasing sward density
- Reduced waste Nitrogen resulting in improved cost efficiency and reduced environmental impact by:
 - Preventing volatilisation
 - Slowing down nitrification
 - Preventing leaching

- Reduces unwanted growth flushes
- Safe, reduced scorch susceptibility formulations
- Reduces soft lush growth and disease susceptibility
- Protects water courses from nitrate pollution (less algae growth in ponds/lakes)
- Discourages annual grasses in greens (e.g. Poa annua) promotes perennial grasses
- Can safely be applied at any time of year when conditions allow
- Low salt formulations improving root zone environment and enhancing root activity
- Range of granule sizes, pricing and formulations, to meet every turf managers requirements
- Proven technology, with scientific explanation; ProloNg[®] technology really works!
- Excellent grass colour

Many times over, users have reported healthier swards of better colour; this is due to the fact that when nitrogen is applied, at whatever time of year, with ProloNg[®] technology the plant will only assimilate its nitrogen requirements in the form of ammonium. The plant therefore has enough, but not too much nitrogen and is stronger/sturdier, healthier/less susceptible to damage (physical or disease pressure) and of improved appearance. There's no more requirement for 'artificial green-ups' using harmful products like iron sulphate.

best quality, best service, best value



ProloNg® fertilisers

Nitrogen efficiency

Below is a diagram showing how **ProloNg**[®] effectively interrupts the Nitrogen cycle demonstrating the benefits for turf management.



Economically,

Agronomically &

Environmentally the best!



ProloNg[™] mini

Nitrogen efficiency

• High quality homogenous mini granules for greens, tees and all sports surfaces

ProloNg [™] mini Spring/Summer Fairway Sports Pitches	24 - 3 - 7 44% of Nitrogen (N) as Ammonium with ProloNg [™] techn 56% of Nitrogen (N) as Urea with ProloNg [™] technology 100% of Potash from Muriate of Potash	ology
*Potential longevity:	spring/summer application, 3-4 months autumn/winter application, 5-7 months	
Rates of Application:	50g/m²	20kg bag treats 400m ²
Nutrients applied per m ² @ 50g/m ²	12g N − 1.5g P ₂ O ₅ - 3.5g K ₂ O	1-2.5mm granules
ProloNg [™] mini	18 - 3 - 18	
Fairways & pitches	40% of Nitrogen (N) as Ammonium with ProloNg [™] techn 60% of Nitrogen (N) as Urea with ProloNg [™] technology 100% of Potash from Muriate of Potash	ology
*Potential longevity:	spring/summer application, 3-4 months autumn/winter application, 6-8 months	
Rates of Application:	50g/m²	20kg bag treats 400m ²
Nutrients applied per m ² @ 50g/m ²	9g N − 1.5g P ₂ O ₅ - 9g K ₂ O	1-2.5mm granules
ProloNg™ mini	14 - 1 - 7 + 3% MgO + 2% Fe + 4	% (20
Tees & Approaches	90% of Nitrogen (N) as Ammonium with ProloNg™ techn 10% of Nitrogen (N) as Urea with ProloNg™ technology	
*Potential longevity:	100% of Potash from Muriate of Potash spring/summer application, 2-3 months autumn/winter application, 5-6 months	
Rates of Application:	50g/m²	20kg bag treats 400m ²
Nutrients applied per m ² @ 50g/m ²	7g N − 0.5g P ₂ O ₅ - 3.5g K ₂ O + 1.5g MgO + 1g Fe	+ 2g CaO 1-2.5mm granules
ProloNg™ mini	11 - 5 - 5 + 3% CaO + 8% SO₃	
Spring greens & tees	100% of Nitrogen (N) as Ammonium with ProloNg™ technology 100% of Potash from Muriate of Potash	
*Potential longevity:	spring/summer application, 8-10 weeks	
Rates of Application:	50g/m²	20kg bag treats 400m ²

*Longevities quoted are based on recommended application rates & are purely a guide, as plant variety, plant density and environmental conditions, as well as timing of application will dictate plant Nitrogen use and therefore the speed in which applied Nitrogen is utilised.

5.5g N − 2.5g P₂O₅ - 2.5g K₂O + 1.5g CaO + 4g SO₃

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Nutrients applied per m² @ 50g/m²

1-2.5mm granules