

growth through innovation

Turf & Amenity Product Guide 2014



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Welcome to Indigrow

Indigrow produces a comprehensive range of specialist nutritional products for professional sports turf, agriculture, horticulture and landscaping. Indigrow is able to design, develop and manufacture specialist major, secondary and micronutrient fertiliser formulations.

Indigrow has over 50 years of experience in fertiliser, wetting agent and irrigation products for the amenity sector. The current product range has been developed and improved over time to suit the plant requirements on managed amenity turf.

The Indigrow group of companies and our distributors maintain our product coverage throughout Europe, the Middle and Far East. Indigrow has an extensive range of products and recommendations to suit all climatic conditions and grass species.

In addition to the product range that we supply we also offer custom manufacturing for specific requirements. Our manufacturing is carried out at a number of locations all of which are approved to ISO 9001:2000 or equivalent and this is backed up with modern distribution centres and logistics systems, used to handling and delivering quality products safely.

Customer service is a vital part of the package that Indigrow offer. We work with local suppliers and distributors to ensure that the product supplied can provide the exact quantities of nutrients required for optimum performance and maximum aesthetic effect.

Should you require any further information then please feel free to contact us:



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Fine Turf & Outfield Granular Fertilisers



Impact fertilisers have been developed to promote healthy, strong turf. Comprising a number of different nutrients in a variety of formulations, Impact fertilisers are highly effective on all soil types with differing base nutrient levels. The fertilisers have been designed to work throughout the year and across a wide range of climates. Impact fertilisers are available in standard and slow release formulations, a range of different granule sizes and with various advanced, technological coatings.

Impact fertilisers incorporate a number of environmental factors, helping them to promote sustainable turf. Seaweed is also added to several of the products within the Impact range, allowing them to utilise all of its many benefits to help encourage healthy and aesthetically pleasing turf.

Slow release fertilisers (SRF) have the ability to provide nutrients to the plant when most needed. These fertilisers take care of the changing needs of

the plant and support the seasonal growth process. The nitrogen in the slow release fertilisers is either released by hydrolysis or by microbial activity in the soil. There is far less leaching, meaning fewer applications - a major benefit to the greenkeeper or groundsman - as well as the obvious environmental benefits.

There are a mixture of chain lengths in our SRF methylene urea granular fertilisers. These different chain lengths provide different nitrogen release times to ensure the plant always has the required nitrogen input. The urea releases first, providing initial green up. Mono-methylene urea releases second and methylene diurea third. The final release phase is polymethylene urea. These four stages release the nitrogen regularly over 8-12 weeks.

Our controlled release fertilisers (CGF) have two different coating types. PSCU (polymer sulphur coated urea) based fertilisers use a release mechanism based on moisture, giving longevities from 8 to 12 weeks. Our resin coated urea fertiliser has a release mechanism based on moisture and temperature, providing a longevity of 18-22 weeks.

The Impact range also contains fertiliser spreaders to help ensure that the application rates, and therefore the applied nutrient levels recommended by Indigrow are achieved. Spreader settings for all Indigrow granular fertilisers can be found on pages 66-67.

Product	Analysis	App. Rate	Longevity	Pack Coverage	Pack Size	Code
Accelerate 14-0-12	14-0-12	20-40g/m ²	4-6 weeks	500-1,000m ²	20 kg	IG030204
Vitalize 16-5-16	16-5-16	20-40g/m ²	4-6 weeks	500-1,000m ²	20 kg	IG030204
Perk 4-0-14 + 10% Fe	4-0-14	20-40g/m ²	6-12 weeks	500-1,000m ²	20 kg	IG030203
All Round 6-5-18	6-5-18	20-40g/m ²	4-6 weeks	500-1,000m ²	20 kg	IG030301
High K 0-0-50	0-0-50	10-20g/m ²	4-6 weeks	1,000-2,000m ²	20 kg	IG030301
Start 22-3-10	22-3-10	15-20g/m ²	3-5 weeks	1,500-2,000m ²	20 kg	IG030300
Enhance	37% CaO	10-20g/m ²	4-6 weeks	1,000-2,000m ²	20 kg	IG030201
ZeoZone	37 70 CaO	100-200 kg/500m ²	Weeks	50-100m ²	20 kg	IG030500
SRF 19-0-19	19-0-19	20-40g/m ²	8-12 weeks	500-1,000m ²	20 kg	IG030500
SRF 12-0-24	12-0-24	20-40g/m ²	8-12 weeks	500-1,000m ²	20 kg	IG030514
SRF Seed Starter 10-20-10	10-20-10	20-40g/m ²	8-10 weeks	500-1,000m ²	20 kg	IG030510
CGF 25-5-10	25-5-10	25-50g/m ²	8-12 weeks	400-800m ²	20 kg	IG030312
CGF 16-5-26	16-5-26	25-50g/m ²	8-12 weeks	400-800m ²	20 kg	IG030812
CGF 15-5-15	15-5-15	30-50g/m ²	8-10 weeks	400-660m ²	20 kg	IG030812
CGF 26-5-8	26-5-8	25-50g/m ²	10-12 weeks	400-800m ²	20 kg	IG030808
CGF 30-8-8	30-8-8	30-50g/m ²	18-24 weeks	400-660m ²	20 kg	IG030814
Impact 20 Spreader	-	- 30-30g/III	- TO-24 WCCK3	-	- 20 kg	IG030821
Impact 25 Spreader	-	<u>-</u>	<u>-</u>	<u>-</u>	<u> </u>	IG020101
-	-	-	-	-	-	
Impact 45 Spreader	-	-	-	-	-	IG020301





Accelerate 14-0-12

Accelerate 14-0-12 has been designed to provide recovery and early green up of greens, tees and fairways. It provides an acidifying effect and can be used on soils with high pH levels. Accelerate 14-0-12 contains added potassium for improved wear tolerance and greater disease resistance.

- Designed for use on greens, tees and fairways
- Micro-prill homogenous fertiliser
- Swiftly dispersing granule minimises mower pickup
- Helps limit disease during periods of high pathogen activity

Approximate	Longevity	4-6 weeks			
SGN		100			
Cutting Heigl	nt	>2mm			
Nitrogen Sou	rce	14.00% ammonium			
Guaranteed A	nalysis	14-0-12			
Product Code		IG030204			
Pack Size	20 kg	Pack Coverage	500-1,000 m ²		

Application Information

Application Rate					20-40 g/m²						
Wate	er Rate	9	N/A			Meth	nod		Sı	preade	r
Nutient levels applied (kg/ha) from one application											
20g/m²					40g/m²						
N.	28.0	P ₂ O ₅	0.0	K ₂ O	24.0	N S	56.0	P ₂ O ₅ 0.0		0.0 K ₂ O 48.0	
Suggested use period											
JAN		MAR	APR	MAY	JUN	JUL	AUG		ОСТ	NOV	DEC

Vitalize 16-5-16

Vitalize 16-5-16 has been developed to have a NPK analysis that provides an acidifying response. Vitalize 16-5-16 has added magnesium to improve plant stress relief during the main growing season. The technological formulation also provides quick green up as well as slow release technology for added longevity.

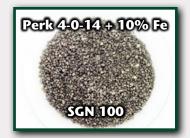
- Good cool temperature response
- Improved plant stress control
- · Added magnesium for improved stress relief
- Quick breakdown of granules with moisture

Approximate Lo	ongevity	4-6 weeks
SGN		100
Cutting Height		>2mm
Nitrogen Source	e	8.48% urea, 7.52% ammonium
Trace Elements		2% MgO
Guaranteed Ana	alysis	16-5-16
Product Code		IG030205
Pack Size	20 kg	Pack Coverage 500-1,000 m ²

Application Information

Application Rate				20-40 g/m ²			
Water Rate N/A			N/A	Method Spreader			preader
Nutrient levels applied (kg/ha) from one application							
	20g/	/m²			40g	/m²	
N 32.0	P ₂ O ₅	10.0	K ₂ O 32.0	N 64.0 P ₂ O ₅ 20.0 K ₂ O 64.0			
Suggested use period							

Suggested use period





Perk 4-0-14 + 10% Fe

Perk 4-0-14 will not over stimulate growth. The 10% slow release iron provides long term colour. The methylene urea provides extra longevity and gives the product a low salt index. The combination of manganese, iron and potassium make this an ideal autumn and winter turf hardening formulation.

- High potassium formulation with added manganese
- 10% phased release iron provides up to 12 weeks of green up
- Slow release iron derived from iron humate
- Ideal for sand based constructions

Approximate Lo	ongevity	6-12 weeks	6-12 weeks			
SGN		100				
Cutting Height		>2 mm				
Nitrogen Source	e	2.00% ammoniu	2.00% ammonium, 2.00% urea			
Trace Elements		10% slow release	10% slow release iron, 1% Mn			
Guaranteed An	alysis	4-0-14				
Product Code		IG030304				
Pack Size	20 kg	Pack Coverage	500-1,000 m ²			

Application Information

Application Rate				20-40 g/m ²			
Water Rate	Water Rate N/A			Method Spreader			preader
Nutrient levels applied (kg/ha) from one application							
	20g/r	n²			40g	/m²	
N 8.0	P ₂ O ₅ 0	0.0	K ₂ O 28.0	N 16.0 P ₂ O ₂		0 P ₂ O ₅ 0.0 K ₂ O 56.	

Suggested use period

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

All round 6-5-18

All Round 6-5-18 is a well-balanced NPK fertiliser. Seaweed is added to the 6-5-18 during manufacture. This seaweed provides added stress relief to the plant during the growing season. The All Round 6-5-18 features 1mm granules which disappear into the sward quickly ensuring minimal disruption to activity on the turf.

- Extra longevity and low salt index from methylene urea
- Ideal for sand based constructions
- Moisture activated granules
- Improves nutrient uptake in cooler soil temperatures

Approximate L	ongevity	4-6 weeks			
SGN		100			
Cutting Height		>2 mm			
Nitrogen Sourc	:e	4.92% urea, 1.08% ammonium			
Trace Elements		2% MgO			
Guaranteed An	alysis	6-5-18			
Product Code		IG030301			
Pack Size	20 kg	Pack Coverage	500-1,000 m ²		

Application Information

Application Rate			20-40 g/m²				
Water Rate	Water Rate		N/A	Method Spreader			preader
Nutrient levels applied (kg/ha) from one application							
	20g	/m²			40g	/m²	
N 12.0	P ₂ O ₅	10.0	K ₂ O 36.0	N 24.0 P ₂ O ₅		20.0	K ₂ O 72.0
N 12.0	P ₂ O ₅	10.0	K ₂ O 36.0	N 24.0	P ₂ O ₅	20.0	K ₂ O 72.0

Suggested use period



Start 22-3-10

Impact Start has been developed to provide a quick response, particularly when soil temperatures are low. This quick response is provided by the high nitrogen content. As the name suggests, Impact Start works well in early spring or when additional plant growth is required.

- Designed as a spring starter for greens, tees and surrounds
- Ideal in low temperatures
- High nitrogen content

Approximate	Longevity	3-5 weeks			
SGN		150			
Cutting Heigl	ht	>3mm			
Nitrogen Sou	rce	19.14% ammonium, 2.86% nitrate			
Guaranteed A	Analysis	22-3-10			
Product Co	de	IG030201			
Pack Size	20 kg	Pack Coverage	500-1,000 m ²		

Application Information

Application Rate			15-20 g/m²					
Water Rate	iter Rate N/A			Method Spreader			preader	
Nutient levels applied (kg/ha) from one application								
	15g	/m²		20g/m²				
N 33.0	P ₂ O ₅	4.5	K ₂ O 15.0	N 44.0 P ₂ O ₅ 6.0 K ₂ O 20.0			K ₂ O 20.0	
Suggested use period								

High K 0-0-50

High K 0-0-50 has been developed to address turf areas with low potassium levels. It helps improve cell wall strength and chlorophyll production without the use of iron or nitrogen. It is designed for use on soils with highly mobile potassium which is susceptible to leaching. High K 0-0-50 should be applied regularly utilising low application rates for most effective performance.

- Usable in winter without stimulating unwanted growth
- Flexible application rates allow use within playing season
- Very soluble formulation
- Usable on sand greens where potassium is highly mobile

Approximate Lo	ongevity	4-6 weeks	4-6 weeks			
SGN		100				
Cutting Height		>2 mm				
Potassium Sour	ce	50.00% potassi	50.00% potassium sulphate			
Guaranteed An	alysis	0-0-50	0-0-50			
Product Code		IG030306				
Pack Size	20 kg	Pack Coverage	1,000-2,000 m ²			

Application Information

Application Rate			10-20 g/m²				
Water Rate N/A			Method Spreader			preader	
Nι	utrient	levels	applied (kg	g/ha) from o	ne ap	plicati	on
10g/m²					20g	/m²	
N 0.0 P ₂ O ₅ 0.0 K ₂ O 50.0			N 0.0 P ₂ O ₅ 0.0 K ₂ O 10			K ₂ O 100.0	

Suggested use period







ZeoZone

Impact ZeoZone is a Non-hazardous natural volcanic aluminasilicate mineral. It is extremely porous and absorbent which allows for the efficient movement of water to turf and plants. Incorporating Impact ZeoZone into the soil profile increases the water retention and CEC of the soil leading to better water and nutrient management.

- Test show it will retain between 92% and 102% of its own mass in water
- Provides this the majority of this available moisture slowly to the plant when required
- It ensures consistent delivery of moisture to the plants root system
- Helps to reduce localized dry spots and irrigation requirements
- Further information available on page 65

SGN		125-225			
Cutting Heig	ht	>2mm	>2mm		
Product Code		IG030500			
Pack Size	20 kg	Pack Coverage	50-100 m ²		

Application Information

Application Rate				100-200 kg/500m²								
Wate	er Rat	e		orougl vater ii	,	Method			Spread		er	
	Suggested use period											
JAN		MAR	APR	MAY	JUN	JUL	AUG		ОСТ	NOV	DEC	

Enhance 37% CaO

Impact Enhance is an effective method of adding calcium and sulphur to the plant, without altering the NPK balance. It can also be applied to counteract problem soil conditions. Impact Enhance is produced from mined calcium sulphate and is ground down to ensure optimum plant availability.

- Designed for calcium deficient soils
- Beneficial in leaching soluble salts from the root zone
- Breaks down rapidly with light irrigation

Approximate	Longevity	4-6 Weeks			
SGN		100			
Cutting Heigl	ht	>2mm			
Calcium Sour	ce	37.00% calcium sulphate			
Guaranteed A	Analysis	0-0-0 + 37% CaO			
Product Co	de	IG030308			
Pack Size	20 kg	Pack Coverage	1,000-2,000 m ²		

Application Information

Application Rate			10-20 g/m²				
Water Rate N/A			Method Spreader			preader	
Nι	ıtrient l	evels	applied (kg	g/ha) from o	ne ap	plicati	on
	10g/m²				20 g	/m²	
N 0.0	P ₂ O ₅ 0	.0	K ₂ O 0.0	N 0.0	P ₂ O ₅	0.0	K ₂ O 0.0

Suggested use period



SRF 19-0-19

SRF 19-0-19 is a phosphorous free, homogenous fertiliser. The added methylene urea provides a slow and gradual nutrient release, whilst minimising the risk of nitrate leaching and runoff. The SRF 19-0-19 provides equal amounts of nitrogen and potassium to help toughen the plant against stresses.

- For use on greens and tees
- Improves drought tolerance and disease resistance
- Low salt content reduces potential for phytotoxicity
- Improves wear tolerance

Approximate	Longevity	8-12 weeks			
SGN		100			
Cutting Heigl	ht	>2mm			
Nitrogen Sou	rce	3.23% urea, 13.87% MU, 1.90% ammonium			
Trace Elemen	ts	See page 60			
Guaranteed A	Analysis	19-0-19			
Product Code		IG030514			
Pack Size	20 kg	Pack Coverage 500-1,000m ²			

Application Information

Application Rate			20-40 g/m²			
Water Rate N/A			Method Spreader			preader
Nu	ıtrient leve	ls applied (ko	g/ha) from o	ne ap	plicati	ion
	20g/m ²			40g	/m²	
N 38.0 P ₂ O ₅ 0.0 K ₂ O 38.0			N 76.0	P ₂ O ₅	0.0	K ₂ O 76.0

Suggested use period

OCT NOV DEC

SRF Seed Starter 10-20-10

Designed to enhance germination and establishment of newly seeded or turfed areas, SRF Seed Starter 10-20-10 provides an acidifying effect on the turf from its NPK analysis and displays good cool temperature response. Contains added calcium and seaweed to help seedling establishment and root growth.

- Contains fast acting and slow release nutrients
- Granules that break down quickly with moisture
- Can be applied directly to the seed bed or newly laid turf

Approximate	Longevity	8-10 weeks				
SGN		100				
Cutting Heigl	Cutting Height >2mm					
Nitrogen Sou	rce	5.50% MU, 4.50% ammonium				
Trace Elemen	ts	See page 60				
Guaranteed A	Analysis	10-20-10				
Product Code		IG030512				
Pack Size	20 kg	Pack Coverage 500-1,000m ²				

Application Information

Application Rate			20-40 g/m²					
Water Rate N/A Method Spreade			preader					
Nutrient levels applied (kg/ha) from one application								
	20g/m ²			40g	/m²			
N 20.0 P ₂ O ₅ 40.0 K ₂ O 20.0 N 40.0 P ₂ O ₅ 80.0 K ₂ O 40.0								
Suggested use period								

Suggested use period

IAN

OCT NOV DEC

SRF 12-0-24

SRF 12-0-24 is a homogenous particle fertiliser, designed to provide uniform nutrient distribution. The methylene urea provides a gradual and consistent nutrient release for up to 16 weeks and reduces the risk of nitrate leaching and runoff. The added nitrogen provides efficient potassium uptake.

- Designed for use on greens and tees
- Phosphorous free
- Low salt content reduces potential for phytotoxicity
- High potassium levels provide improved drought tolerance

Approximate	Longevity	8-12 weeks				
SGN		100				
Cutting Heig	ht	>2mm				
Nitrogen Sou	rce	· · · · · · · · · · · · · · · · · · ·	2.04% urea, 9.00% MU, 0.96% ammonium			
Trace Elemen	ts	See page 60				
Guaranteed A	Analysis	12-0-24				
Product Code		IG030516				
Pack Size	20 Kg	Pack Coverage	500-1,000 m ²			

Application Information

Application Rate			20-40 g/m²					
Water Rate N/A			Method Spreader			preader		
Νι	Nutrient levels applied (kg/ha) from one application							
	20g/m²			40g	/m²			
N 24.0 P ₂ O ₅ 0.0 K ₂ O 48.0 N 48.0 P ₂ O ₅ 0.0 K ₂ O 96					K ₂ O 96.0			
	2 3	2		2 - 3		2		

Suggested use period









Outfield CGF 25-5-10 (40% PolyC)

Impact Outfield CGF 25-5-10 provides excellent nutrient availability in cool temperatures. The unique formulation process ensures free release of ammoniacal and ureic nitrogen immediately after application, providing an initial effect on growth. The added 2% MgO provides excellent green up, and the PSCU coating ensures very low nitrogen leaching.

- Ideal spring starter for outfields
- Moisture activated controlled released nitrogen
- Prevents scorch
- Ideal for use on tees, fairways, sports fields and non-fine turf

Approximate	Longevity	8-12 weeks			
SGN		180			
Cutting Heigl	ht	>6 mm			
Nitrogen Sou	rce	10.00% PolyC, 13.00% urea, 2.00% ammonium			
Trace Elemen	ts	2% MgO			
Guaranteed Analysis		25-5-10			
Product Co	de	IG030810			
Pack Size	20 kg	Pack Coverage 400-800m ²			

Application Information

Application Rate			25-50 g/m²			
Water Rate	ite N/A Method Spreado			preader		
Νι	utrient le	evels applied (kg	g/ha) from o	ne ap	plicati	on
	25g/n	n²		50g	/m²	
N 62.5 P ₂ O ₅ 12.5 K ₂ O 25.0			N 125.0	P ₂ O ₅	25.0	K ₂ O 50.0

Suggested use period

AN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

Outfield CGF 16-5-26 (40% PolyC)

Impact Outfield CGF 16-5-26 is an ideal feed for outfields, providing an excellent response even in cooler temperatures. The unique formulation process ensures early release of ammoniacal and ureic nitrogen, providing an initial growth effect. This, combined with the added 2% MgO, delivers excellent plant green up.

- Controlled release nitrogen, activated by moisture
- Prevents scorch
- High potassium levels provide added winter colour
 - Ideal for application to tees, fairways, sports fields

Approximate Longevity 8-12 weeks				
SGN		180		
Cutting Heig	ht	>6 mm		
Nitrogen Source		6.40% PolyC, 7.04% urea,		
		2.56% ammonium		
Trace Elemen	ts	2% MgO		
Guaranteed A	Analysis	16-5-26		
Product Co	de	IG030812		
Pack Size	20 kg	Pack Coverage 400-800m²		

Application Information

Application Rate					25-50 g/m²					
Water Rate	Water Rate N/A			Method Sprea			preade	r		
N	utrien	t level	s appli	ed (kg	g/ha) f	rom o	ne ap	plicati	on	
25g/m²					50g/m²					
N 40.0	P ₂ O ₅	12.5	K ₂ O	65.0	.0 N 80.0 P ₂ O ₅ 25.0 K ₂ O 13				30.0	
Suggested					use p	eriod				
JAN FEB	MAR	APR	MAY	JUN	JUL	AUG		ОСТ	NOV	DEC





Outfield CGF 15-5-15 (20% PolyC)

Impact CGF 15-5-15 is suitable for fairways and outfields and is an ideal spring/summer product. The high levels of uncoated nitrogen provide the turf with good green up and an initial growth response. Impact CGF 15-5-15 is a very economic approach to feeding large areas and the added PSCU provides increased longevity.

- Suitable for use on tees, fairways, outfields and sports fields
- Moisture activated controlled release nitrogen
- Balanced N-K analysis
- Economic controlled release fertiliser

Approximate	Longevity	8-10 weeks			
SGN		225-250			
Cutting Heig	ht	>10 mm			
Nitrogen Sou	irce	3.00% PolyC, 9.90% urea, 2.10% ammonium			
Trace Elemen	ts	12.6% CaO, 12.49	% SO ₃		
Guaranteed A	Analysis	15-5-15			
Product Code		IG030808			
Pack Size	20 kg	Pack Coverage 400-660m²			

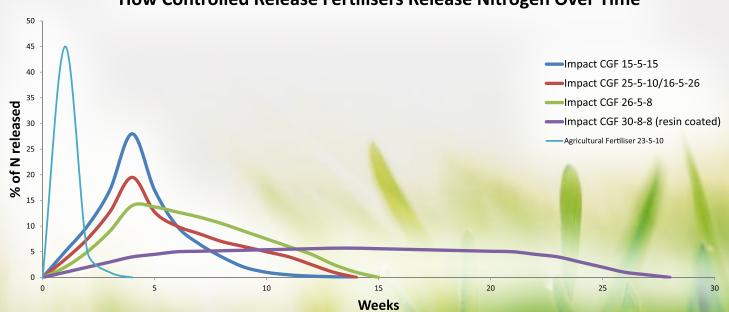
Application Information

Application Rate			30-50 g/m²			
Water Rate N/A			Method Spreader			preader
Nu	trient level	s applied (k	g/ha) from o	ne ap	plicati	on
30g/m²				50g	/m²	
N 45.0	P ₂ O ₅ 15.0	K ₂ O 45.0	N 75.0	P ₂ O ₅	25.0	K ₂ O 75.0

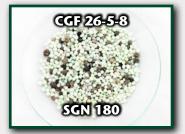
Suggested use period

jan feb mar apr may jun jul aug sep oct nov dec

How Controlled Release Fertilisers Release Nitrogen Over Time







Outfield CGF 26-5-8 (60% PolyC)

Impact Outfield CGF 26-5-8 is a balanced summer feed that provides steady growth response. The free release of ammoniacal and ureic nitrogen provides an initial growth effect. The two step manufacturing process ensures a far more predictable nutrient release pattern in comparison to other blended PSCU products available.

- Moisture activated controlled release nitrogen
- Prevents scorch
- Provides plant 'green-up' from additional 2% MgO
- Suitable for use on tees, fairways, outfields and sports fields

Approximate	Longevity	10-12 weeks			
SGN		180			
Cutting Heigh	nt	>6 mm			
Nitrogen Sou	rce	15.60% PolyC, 8.3 2.08% ammonium			
Trace Element	is	2% MgO			
Guaranteed A	nalysis	26-5-8			
Product Code		IG030814			
Pack Size	20 kg	Pack Coverage	400-800m ²		

Application Information

Application Rate			25-50 g/m ²			
Water Rate	Water Rate N/A			Method Spreader		
Nutrient levels applied (kg/ha) from one application						on
	25g/m ²	2		50g	/m²	
N 65.0	P ₂ O ₅ 12.5	K ₂ O 20.0	N 130.0	P ₂ O ₅	25.0	K ₂ O 40.0

Suggested use period

APR MAY JUN JUL AUG SEP OCT NOV DEC

Outfield CGF 30-8-8 (94% resin)

Impact Outfield CGF 30-8-8 contains moisture and temperature activated controlled release nitrogen from the 96% resin coating. Impact Outfield CGF 30-8-8 is controlled release in its nature, making it more environmentally friendly than standard release fertilisers. The controlled release nature is in keeping with the basic principles of sustainable turf.

- Steady summer feed
- Increased longevity compared to many PSCU fertilisers
- Prevents scorch
- Ideal for use on fairways, tees and greens surrounds

Approximate	Longevity	18-24 weeks		
SGN		220		
Cutting Heigl	ht	>6 mm		
Nitrogen Sou	rce	28.20% resin coated urea, 1.80% urea		
Guaranteed A	Analysis	30-8-8		
Product Code		IG030821		
Pack Size	20 kg	Pack Coverage	400-660 m ²	

Application Information

Application Rate				30-50 g/m²							
Wate	ater Rate N/A			Method Spreader					er		
	N	utrien	t level	s appli	ed (kg	g/ha) 1	rom o	ne ap	plicati	on	
	30g/m²					50g/m²					
N :	90.0	P ₂ O ₅	24.0	K ₂ O	24.0	N 150.0 P ₂ O ₅ 40.0 K ₂ O 40.0					40.0
Suggested use period											
JAN		MAR	APR	MAY	JUN	JUL	AUG		ОСТ	NOV	DEC



The Impact 20 Spreader features a 3-hole drop system which provides the users with even and accurate spreading. Also included is an easy to use gauge and control lever to aid the precise application. The Impact 20 Spreader has 10" pneumatic tyres and a high speed gearbox for optimum spread width. It is supplied with a rain cover.

- Designed for small areas or tight budgets
- Rustproof 20kg hopper
- Supplied fully assembled
- Can be used for salt spreading in winter

Product Code

IG020101

Impact 25 Spreader

The Impact 25 Spreader has a 25 kg hopper and incorporates the Dual Port Shut-Off system. The Dual Port Shut-Off system allows the option of repeatable and variable port settings, providing ultimate spread control. The Impact 25 Spreader has a heavy duty twin tube chassis and axel supports. It is supplied with a rain cover and works with all Indigrow Impact fertilisers.

- Designed for large areas of turf and heavy duty use
- 3 position, 3 hole drop system
- Features the Dual Port Shut-Off system
- 13" tyres and high speed gearbox
- Spreader settings available on pages 66-67

Product Code

IG020201



The Impact 45 Spreader has a 45 kg hopper and incorporates the Dual Port Shut-Off system. The Dual Port Shut-Off system allows the option of repeatable and variable port settings, providing ultimate spread control. The Impact 45 Spreader has a heavy duty twin tube chassis and axel supports. It is supplied with a rain cover and works with all Indigrow Impact fertilisers.

- Designed for large areas of turf and heavy duty use
- 3 position, 3 hole drop system
- Features the Dual Port Shut-Off system
- 13" tyres and high speed gearbox
- Spreader settings available on pages 66-67

Product Code

IG020301



Granular and Liquid Organic Fertilisers



Organic fertilisers have become increasingly popular and far more effective in recent years. Indigrow's organic fertilisers are loaded with natural, plant based proteins. Our Impact Organic range is solely based on vegetable material and does not contain any genetically modified products.

Our organic products are now predominantly produced from soybean meal, which is high in protein and an excellent choice for improved overall plant health and increased growth.

Natural proteins are slow release in their nature. They are first broken down into amino acids by microbial activity. These amino acids are then broken down further to ammonium ions and, ultimately nitrate ions. Swards that thrive in acidic soil react well to nitrogen provided as ammonium ions. It is this form of nitrogen which helps these proteins develop.

Impact Organic fertilisers contain seaweed meal which adds valuable micronutrients, growth hormones, and vitamins which help disease tolerance, reduce plant stress from drought, and increase frost tolerance.

The Impact Organic range contains formulations suitable for fine turf, as well as for fairways and outfields. These formulations contain a balance of quick release nitrogen, phosphate and potassium (NPK) for an initial response from the plant. This initial release is followed by further response from the methylene urea and a sustained release from the plant proteins.

Product	Analysis	App. Rate	Longevity	Pack Coverage	Pack Size	Code
Organic 14-2-8 Fine	14-2-8	35-70g/m ²	8-12 weeks	300-600m²	20 kg	IG030901
Organic 14-2-8 Medium	14-2-8	35-70g/m ²	8-12 weeks	300-600m²	20 kg	IG030951
Organic 6-3-18 Fine	6-3-18	35-70g/m ²	6-8 weeks	300-600m²	20 kg	IG030902
Organic 6-3-18 Medium	6-3-18	35-70g/m ²	6-8 weeks	300-600m²	20 kg	IG030952
Organic 5-6-4 Medium	5-6-4	35-70g/m ²	6-8 weeks	300-600m²	20 kg	IG030953
Organic Universal Liquid	6.25% N	40-80lt/ha	4-8 weeks	2,500-5,000m² 2.5-5 ha 12.5-25 ha	20 lt 200 lt 1,000 lt	IG030990 IG030992 IG030994





Organic 14-2-8 (Fine)

Impact Organic 14-2-8 is a fully composted fertiliser. The organic portion helps develop beneficial bacteria within the root-zone, whilst the methylene urea provides extended nitrogen release. The Organic 14-2-8 also contains an organic, added mineral and slow release combination to provide many benefits to healthy turf. Organic 14-2-8 also contains added magnesium and iron.

- Fine grade for use on greens and tees
- High nitrogen spring and summer feed
- Methylene urea provides extended longevity
- Low salt index and minimal scorch

Approximate	Longevity	8-12 weeks			
SGN		120			
Cutting Heigl	ht	>2 mm			
Nitrogen Sou	irce	2.52% organic, 5.88% urea, 2.94% MU, 2.66% ammonium			
Guaranteed A	Analysis	14-2-8			
Product Co	de	IG030901			
Pack Size	20 kg	Pack Coverage	300-600 m ²		

Application Information

Application Rate			35-70 g/m²				
Water Rate		N/A	Method Spreader				
Nutrient levels applied (kg/ha) from one application							
	35g/	/m²			70g	/m²	
N 49.0	P ₂ O ₅	7.0	K ₂ O 28.0	N 98.0 P ₂ O ₅ 14.0 K ₂ O 56.0			

Suggested use period

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG		ОСТ	NOV	DEC	
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Organic 14-2-8 (Medium)

Impact Organic 14-2-8 is a fully composted fertiliser. The organic portion helps develop beneficial bacteria within the root-zone, whilst the methylene urea provides extended nitrogen release. The Organic 14-2-8 also contains an organic, added mineral and slow release combination to provide many benefits to healthy turf. Organic 14-2-8 also contains added magnesium and iron.

- Medium grade for use on tees, fairways and outfields
- High nitrogen spring and summer feed
- Methylene urea provides extended longevity
- Low salt index and minimal scorch

Approximate	Longevity	8-12 weeks			
SGN		200			
Cutting Height		>6 mm			
Nitrogen Source		2.52% organic, 5.88% urea, 2.94% MU, 2.66% ammonium			
Guaranteed A	Analysis	14-2-8			
Product Code		IG030951			
Pack Size	20 kg	Pack Coverage 300-600 m ²			

Application Information

Application Rate			35-70 g/m²			
Water Rate		Method Spreade			preader	
Nu	ıtrient leve	ls applied (ko	g/ha) from o	ne ap _l	olicati	on
	35g/m²			70g,	/m²	
N 49.0	P ₂ O ₅ 7.0	K ₂ O 28.0 N 98.0 P ₂ O ₅ 14.0 K ₂ O 56				K ₂ O 56.0

Suggested use period





Organic 6-3-18 (Fine)

Organic based fertilisers have been proven to help reduce thatch and disease occurrence. Impact Organic 6-3-18 has added potassium to aid stress relief during periods of high levels of use. These high potassium levels also help during more extreme weather conditions. The organic portion of the 6-3-18 helps to develop beneficial bacteria within root-zone.

- Fine grade suitable for greens and tees
- Balanced organic and mineral combination
- Excellent cool temperature response
- Extended nitrogen release from organic source

Approximate	Longevity	6-8 weeks			
SGN		120			
Cutting Heig	ht	>2 mm			
Nitrogen Source		2.82% organic, 1.98% urea, 0.60% ammonium, 0.60% nitrate			
Guaranteed .	Analysis	6-3-18			
Product Code		IG030902			
Pack Size	20 kg	Pack Coverage	300-600 m ²		

Application Information

Application Rate			35-70 g/m²			
Water Rate N/A Method Spreade				preader		
Nι	ıtrient leve	els applied (kg	g/ha) from o	ne ap	plicati	on
	35g/m²			70g	/m²	
N 21.0 P ₂ O ₅ 10.5 K ₂ O 63.0 N 42.0 P ₂ O ₅ 21.0				21.0	K ₂ O 126.0	

Suggested use period

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

Organic 6-3-18 (Medium)

Organic based fertilisers have been proven to help reduce thatch and disease occurrence. Impact Organic 6-3-18 has added potassium to aid stress relief during periods of high levels of use. These high potassium levels also help during more extreme weather conditions. The organic portion of the 6-3-18 helps to develop beneficial bacteria within root-zone.

- Medium grade suitable for tees, fairways and outfields
- Balanced organic and mineral combination
- Excellent cool temperature response
- Extended nitrogen release from organic source

Approximate	Longevity	6-8 weeks			
SGN		200			
Cutting Heig	ht	>6 mm			
Nitrogen Source		2.82% organic, 1.98% urea, 0.60% ammonium, 0.60% nitrate			
Guaranteed A	Analysis	6-3-18			
Product Code		IG030952			
Pack Size	20 kg	Pack Coverage	300-600 m ²		

Application Information

Application Rate			35-70 g/m²				
Water Rate	Nater Rate		N/A	Method Spreader			
Ni	utrient	level	s applied (ko	g/ha) from o	ne ap	plicati	on
	35g,	/m²			70g	/m²	
N 21.0	P ₂ O ₅	10.5	K ₂ O 63.0	N 42.0 P ₂ O ₅ 21.0 K ₂ O 126.0			

Suggested use period



Organic 5-6-4 (Medium)

Impact Organic 5-6-4 is slow release in its nature, utilising organic sources such as non-GM oil seed meal, soybean meal and beet vinasse. Its organic properties ensure a low salt index and minimal scorch. It is ideal for use on sand based root-zones containing low levels of beneficial bacterial. It is a perfect product for those wanting to follow a low organic feed programme.

- Medium crumb with 100% organic nitrogen
- Fully organic and fully composted
- Ideal soil conditioner
- Use on greens, tees, fairways and outfields

Approximate	Longevity	6-8 weeks		
SGN		200		
Cutting Heig	Cutting Height >6 mm			
Nitrogen Source		5.00% organic		
Guaranteed A	Analysis	5-6-4		
Product Co	de	IG030953		
Pack Size	20 kg	Pack Coverage	300-600 m ²	

Application Information

Application Rate			35-70 g/m²			
Water Rate		Method Spreader			preader	
Nu	trient leve	ls applied (ko	g/ha) from o	ne ap	plicati	on
	35g/m²			70g	/m²	
N 17.5	P ₂ O ₅ 21.0	N 35.0	P ₂ O ₅	42.0	K ₂ O 28.0	

Suggested use period

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Organic Universal Liquid

Impact organic Universal Liquid is a special blend of Seaweed, Humic substances, Amino acids and Trace elements. Once applied to turf, it will help stimulate soil biological activity as well as giving additional nutrients. Total Nitrogen 2%.

- Rich in Auxins, Cytokinins, Humic and Fulvic substances
- Contains plant available L-amino acids
- An ideal turf tonic and plant biostimulant
- Usable on greens, aprons, tees, fairways and sports pitches

Approximate Longevity		4-8 weeks			
Cutting Height		Any			
Nitrogen Sou	irce	2.00% organic			
Trace Elemen	ts	Mg, Mn, Zn, Β, Cι	ı		
Guaranteed Analysis		2-2-2			
Product Code		IG030990			
Pack Size	20 lt	Pack Coverage	2,500-5,000 m ²		
Product Co	de	IG030992			
Pack Size	200 lt	Pack Coverage	2.5-5 ha		
Product Code		IG030994			
Pack Size	1,000 lt	Pack Coverage	12.5-25 ha		

Application Information

Application Rate			40-80 lt/ha			
Water Rate	300	Method Sprayer			Sprayer	
N	utrient leve	ls applied (k	g/ha) from o	ne ap	plicati	on
	40 lt/ha			80 I	t/ha	
N 0.8 P ₂ O ₅ 0.8 K ₂ O 0.8 N 1.6 P ₂ O ₅ 1.6 K ₂ O 1.					K ₂ O 1.6	

Suggested use period

Granular, WDG and Liquid Biological Fertilisers



Turbine granular products use a binder as a control release mechanism which is a combination of plant derived, L-Lysine based microbial protein, and short and long chain saccharides. Instead of MU acting as the bonding and release agent, as mineral versions, the L-Lysine based protein acts in very much the same way. The only way the granule can be broken down and in turn solubilise all the nutrients, is by soil microbial activity, hence nutrients are only released when temperatures are such that the turf is actively growing.

One of the real advantages of Turbine granular biological fertilisers is the solubility of the amino acids. Many traditional organic fractions are very slow to release (feather meal, bone meal, and particularly cured manure or sewerage biosolids). This is particularly so, in cooler climates.

The amino acid profile in Turbine granular products is very soluble, using a combination of fast, medium and slow components, so that, a quicker yet sustained response in achieved.

Product	Analysis	App. Rate	Longevity	Pack Coverage	Pack Size	Code
Turbine 12-0-4 Granular Fertiliser	12-0-4 + 4% Fe	20-40g/m²	4-6 weeks	5,000-10,000m ²	20 kg	IG080101
Turbine 10-0-0 Granular Fertiliser	10-0-0	20-40g/m ²	4-6 weeks	5,000-10,000m ²	20 kg	IG080103
Turbine 8-0-6 Granular Fertiliser (WDG)	8-0-6	20-40g/m²	4-6 weeks	5,000-10,000m ²	20 kg	IG080201
<u>Turbine Crossflow</u>	4-0-2	20-40 lt/ha	2-3 weeks	5,000-10,000m ²	10 lt	IG080301
Turbine Impulse	2.0% N, 0.5% MgO, 0.5% Zn, 0.15% B, 0.1% Mn, 0.05% Cu	2.5 lt/ha	2-3 weeks	5,000-10,000m²	2.5 lt	IG080305
Turbine Reaction	16% L-amino acids	2.5 lt/ha	2-3 weeks	5,000-10,000m ²	2.5 lt	IG080309
Turbine Reaction One Shot	16% L-amino acids	2-4 sachets/ha	2-3 weeks	5-10 ha	20 sachets	IG080312







Turbine 12-0-4 Granular Fertiliser

Turbine 12-0-4 is a granular fertiliser with very high organic content. It contains added iron (Fe) and is rich in humic and fulvic acids. These, in conjunction with the soluble amino acids provide the turf with all the requirements for fantastic green colour.

- Helps in areas where organic amino acids are required
- Added Protein Nitrogen
- For use on greens, tees, fairways and sports fields/grounds
- Highly soluble amino acids

Approximate	Longevity	4-6 weeks		
SGN	SGN			
Cutting Height		>2 mm		
Nitrogen Source		5.2% MU, 2.0% ammonium, 4.8% organic		
Guaranteed A	Analysis	12-0-4 + 4% Fe		
Product Code		IG080101		
Pack Size	20 kg	Pack Coverage	5,000-10,000 m ²	

Application Information

Application Rate			20-40 g/m²			
Water Rate		N/A	Method		Sp	reader
Nutrient levels applied (kg/ha) from one application						n
20g/m²			40g/m²			
N 24.0	P ₂ O ₅ 0.0	K ₂ O 8.0	N 48.0	P ₂ O ₅ 0.	0	K ₂ O 16.0

Suggested use period

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Turbine 10-0-0 Granular Fertiliser

Turbine 10-0-0 contains 100% organic nitrogen and a complete amino acids package. The added 22 amino acids are fully soluble and are more long lasting than most liquid amino acid products. Turbine 10-0-0 is perfect for compromised soil that requires amino acids in a soluble form.

- 100% organic nitrogen product
- For use on greens, tees, fairways and sports fields/grounds
- Contains fast, medium and slow release amino acids

Approximate	Longevity	4-6 weeks		
SGN		100		
Cutting Height		>2 mm		
Nitrogen Source		10.0% organic		
Guaranteed A	Analysis	10-0-0		
Product Code		IG080103		
Pack Size	20 kg	Pack Coverage	5,000-10,000 m ²	

Application Information

Application Rate			20-40 g/m²				
Water Rate			N/A	Method		S	preader
Nutrient levels applied (kg/ha) from one application					on		
20g/m²			40g/m²				
N 20.0	P ₂ O ₅	0.0	K ₂ O 0.0	N 40.0	P ₂ O ₅	0.0	K ₂ O 0.0

Suggested use period



Web: www.indigrow.com Email: growth@indigrow.com



Turbine 8-0-6 Granular Fertiliser (WDG)

Turbine 8-0-6 is a 100% organic, soluble amino acid WDG (water dispersible granule) fertiliser. All the nitrogen and potassium are fully soluble which makes them more easily absorbed by the plant. Turbine 8-0-6 contains a high content of soluble amino acids as well as high polysaccharide content for maximum soil microbe stimulation.

- 100% organic nitrogen product
- For use on greens, tees, fairways and sports fields/grounds
- Contains 22 different soluble amino acids

Approximate	Longevity	4-6 weeks			
SGN		100			
Cutting Height		Any			
Nitrogen Sou	Nitrogen Source		8.0% organic		
Guaranteed A	Analysis	8-0-6			
Product Code		IG080201			
Pack Size	20 kg	Pack Coverage	5,000-10,000 m ²		

Application Information

Application Rate			20-40 g/m²				
Water Rate	:		N/A	Method		S	preader
Nutrient levels applied (kg/ha) from one application					on		
20g/m²			40g/m²				
N 16.0	P ₂ O ₅	0.0	K ₂ O 12.0	N 32.0	P ₂ O ₅	0.0	K ₂ O 24.0

Suggested use period



Turbine Crossflow

Turbine Crossflow is a complex "Liquid Protein" formula. It assists complexing of tank nutrients, which in turn improves nutrient uptake. Turbine Crossflow is a 84% hydrolysed protein solution with an added 22 highly soluble amino acids and complex polysaccharides.

- Perfect addition to all spray tank mixes
- Helps with plant nutrient up-take
- Contains amino acid chelated manganese and iron

Approximate Longevity		2-3 weeks		
Cutting Height		Any		
Nitrogen Sou	rce 1.4% urea, 0.7% ammonia, 0.7 nitrate, 1.2% organic			
Guaranteed A	nalysis	4-0-2		
Product Code		IG080301		
Pack Size	10 lt	Pack Coverage	5,000-10,000 m ²	

Application Information

Application Rate			20-40 lt/ha			
Water Rate 300-600 lt/ha		Method		Sprayer		
Nutrient levels applied (kg/ha) from one application					on	
20 lt/ha			40 lt/ha			
N 0.8	P ₂ O ₅ 0.0	K ₂ O 0.4	N 1.6	P ₂ O ₅	0.0	K ₂ O 0.8

Suggested use period

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Turbine Impulse

Turbine Impulse is a seaweed derived plant Biostimulant containing naturally occurring levels of plant growth substances such as auxins, and cytokinins as well as betaine and glyceine to help in stress situations.

- Enhances natural nutrient uptake
- Contains 5% organic matter derived from seaweed
- Provides anti-stress effect

Approximate	Longevity	2-3 weeks		
Cutting Height		Any		
Guaranteed A	Analysis	2.00% N, 0.50% MgO, 0.50% Zn, 0.15% B, 0.10% Mn, 0.05% Cu		
Product Code		IG080305		
Pack Size	2.5 lt	Pack Coverage	5,000-10,000 m ²	

Application Information

Application Rate		2.5 lt/ha		
Water Rate	300-600 lt/ha	Method	Sprayer	

Suggested use period

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Turbine Reaction

Turbine Reaction is a plant Biostimulant and stress relieving agent containing 16% of plant available free L-amino acids, which, when applied to plants suffering from environmental stress can help improve turf health and quality.

- Helps turf recover from drought, frost, fungal diseases and pest attack
- Rapidly metabolised
- Relieves plant stress symptoms

11 11 11 11 11		2-3 weeks		
		Any		
Guaranteed Analysis		16.00% L-amino acids		
Product Co	Product Code			
Pack Size	2.5 lt	Pack Coverage	5,000-10,000 m ²	

Application Information

Application Rate				2.5 lt/ha							
Water Rate 300-600 lt/ha			t/ha	Method			Sprayer		.		
Suggested use period											
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC

Turbine Reaction One Shot

Turbine Reaction is a plant Biostimulant and stress relieving agent containing 16% of plant available free L-amino acids, which, when applied to plants suffering from environmental stress can help improve turf health and quality. Turbine Reaction One Shots are a simple and effective, zero mess, application method.

- Helps turf recover from drought, frost, fungal diseases and pest attack
- Rapidly metabolised
- Relieves plant stress symptoms

Approximate	Longevity	2-3 weeks			
Cutting Heigl	ht	Any			
Guaranteed Analysis		16.00% L-amino acids			
Product Code		IG080312			
Pack Size	20 sachets	Pack Coverage	5-10 ha		

Application Information

Application Rate		2-4 sachets/ha			
Water Rate	300-600 lt/ha	Method	Sprayer		

Suggested use period



All foliar feeds are liquids but not all liquids are true foliar feeds. One of the key benefits of a true foliar feed is that the nutrients are absorbed through the leaf of the plant and bypass the root system, even in high stress conditions. This not only maximises nutrient uptake but reduces leaching of nutrients into the environment unlike conventional liquid fertilisers.

The Solar range of activated foliar feeds has been developed to include proprietary complexing agents, surfactants and other formulation aids to provide enhanced uptake and utilisation whilst reducing leaching and volatilisation. The range uses a blend of organic acids, carbohydrates, and other natural organic formulants to achieve optimum leaf uptake and nutrient translocation.

Within the formulation there is an acidifying component which not only helps with the mixing and compatibility but also with nutrient uptake. The complexing agents within the formulation ensure that the 'nutrient' element

is protected from adverse chemical reactions with any pesticides which may be added to the tank mix.

Carefully chosen surfactants reduce the surface tension of the spray droplet allowing for optimum spread and contact with the leaf surface, whilst at the same time giving a degree of rain fastness. Further information on Solar foliar feeds can be found on page 62.

Product	Analysis	App. Rate	Longevity	Pack Coverage	Pack Size	Code
<u>Solar N</u>	19-4-4 + Fe	10-20 lt/ha	2-3 weeks	5,000-10,000m ²	10 lt	IG040102
<u>Solar K</u>	0-0-10	10-20 lt/ha	2-3 weeks	5,000-10,000m ²	10 lt	IG040103
Solar Nano Si	10% SiO ₂	5-10 lt/ha	2-3 weeks	1-2 ha	10 lt	IG040107
<u>Solar PK</u>	4-43-19	10-20 lt/ha	2-3 weeks	5,000-10,000m ²	10 lt	IG040104
<u>Solar Fe</u>	4.6% Fe, 5% K ₂ O	10-20 lt/ha	2-3 weeks	5,000-10,000m ²	10 lt	IG040101
<u>Solar C</u>	11-7-7 + Fe	10-20 lt/ha	2-3 weeks	5,000-10,000m ²	10 lt	IG040105
Solar Ca+Mg	9% CaO, 4% MgO	10 lt/ha	2-3 weeks	10,000m²	10 lt	IG040106
Solar ProActive	4-43-19	2.5 lt/ha	3-4 weeks	10,000m²	2.5 lt	IG040109
Solar Eclipse	15% Mn, 9% SO ₃	2-5 lt/ha	2-3 weeks	5,000-10,000m ²	10 lt	IG040108





Solar N

Solar N is a fully foliar uptake feed containing two nitrogen sources. The combination of these allows for balanced and controlled plant growth. Solar N can be used in isolation, or in combination with other products in a tank mix, utilising the added nitrogen input to boost plant growth.

- True foliar feed, high nitrogen macro-nutrient formulation
- For use on managed amenity turf
- Contains added phosphate, potassium, and iron
- Fast acting, tank mixable formulation

Approximate	Longevity	2-3 weeks			
Cutting Heigl	ht	Any			
Nitrogen Sou	irce	17.86% urea, 1.14% ammonium			
Trace Elemen	ts	See page 60			
Guaranteed A	Analysis	19-4-4 + Fe			
Product Cod	de	IG040102			
Pack Size	10 lt	Pack Coverage	5,000-10,000m ²		

Application Information

Application	10-20 lt/ha					
Water Rate 300-600 lt/ha			Method		Sprayer	
Nu	utrient leve	ls applied (k	g/ha) from o	ne ap	plicati	on
10 lt/ha			20 lt/ha			
N 1.9	P ₂ O ₅ 0.4	K ₂ O 0.4	N 3.8	P ₂ O ₅	0.8	K ₂ O 0.8

Suggested use period

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Solar K

Solar K is a potassium based feed. The main application of Solar K is to address low levels of potassium, most regularly found in sand based root zones. The potassium found in Solar K is immediately available, aiding cell wall strength and helping the plant fight disease.

- Macro and micro-nutrient formulation
- Fast acting formulation
- A true foliar feed, absorbed through the plant leaf
- Ideal plant stress reliever

Approximate	Longevity	2-3 weeks			
Cutting Heigl	nt	Any			
Trace Elemen	ts	See page 60			
Guaranteed A	Analysis	0-0-10			
Product Code		IG040103			
Pack Size	10 lt	Pack Coverage	5,000-10,000m ²		

Application Information

Application Rate			10-20 lt/ha			
Water Rate 300-600 lt/ha		Method		Sprayer		
N	utrient leve	ls applied (k	g/ha) from c	ne ap	plicati	on
10 lt/ha			20 lt/ha			
N 0.0	P ₂ O ₅ 0.0	K₂O 1.0	N 0.0	P ₂ O ₅	0.0	K ₂ O 2.0

Suggested use period

Solar Nano Si

Solar Nano Si is a silicate product which utilises nano technology. Silicon is used in plants to help strengthen cell wall tissues, which aids in the prevention of leaf spot. An application of Solar Nano Si lifts seed heads allowing for better collection with regular mowing, particularly with uneven spring growth. Solar Nano Si assists in the removal of annual meadow-grass.

- Improves uniform cutting and appearance of turf in stadia
- Reduces water loss in dry weather
- Increases ball roll and green speed
- Silicon helps lift the leaf blade to allow a cleaner cut on dwarf perennial rye species
- Solar Nano Si is not suitable for use in a tank mix

Approximate	Longevity	2-3 weeks			
Cutting Heigl	ht	Any			
Guaranteed Analysis		10% SiO ₂			
Product Code		IG040107			
Pack Size	10 lt	Pack Coverage	10,000-20,000 m ²		

Application Information

Application Rate		5-10 lt/ha		
Water Rate 300-600 lt/ha		Method	Sprayer	

Suggested use period

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

Solar PK

Solar PK is a truly foliar feed, for speeding up seedling plant establishment. It can be used during the spring/summer months for a boost in plant growth particularly in low temperatures. Late summer and autumn applications promote turf hardness and will help to boost plant health and disease resistance.

- For use on managed amenity turf
- Fast acting, stable tank mixable formulation
- Fully systemic
- Increases rooting and promotes early establishment

Approximate	Longevity	2-3 weeks			
Cutting Heig	ht	Any			
Nitrogen Sou	ırce	4.00% ammonium			
Trace Elemen	ts	See page 60			
Guaranteed A	Analysis	4-43-19			
Product Code		IG040104			
Pack Size	10 lt	Pack Coverage	5,000-10,000m ²		

Application Information

Application	10-20 lt/ha					
Water Rate 300-600 lt/ha			Method			Sprayer
Nı	utrient le	els applied (k	g/ha) from o	ne ap	plicati	on
10 lt/ha			20 lt/ha			
N 0.4	P ₂ O ₅ 4.3	K ₂ O 1.9	N 0.8	P ₂ O ₅	8.6	K ₂ O 3.8

Suggested use period





Solar Fe

Solar Fe is a fully formulated foliar feed with added Iron. It has been designed to provide a rapid and efficient uptake of nutrients by the leaf. Solar Fe has a complexed formulation, ensuring compatibility with many other products and making it an ideal tank mix partner.

- Added Iron provides fast green up
- A true foliar feed, absorbed through the plant leaf
- High potassium levels provide cell wall strength
- Ensures turf hardness for cold winter months

Approximate	Longevity	2-3 weeks		
Cutting Heigl	ht	Any		
Trace Elemen	ts	See page 60		
Guaranteed A	Analysis	4.6% Fe, 5% K ₂ O		
Product Code		IG040101		
Pack Size	10 lt	Pack Coverage	5,000-10,000m²	

Application Information

Application Rate					10-20 lt/ha						
Water Rate 300-600 lt/ha			Meth	od		S	praye				
				Sugg	ested	use p	period				
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

Solar C

Solar C is a foliar feed with added Iron. It contains carbohydrates to provide a boost to the nitrogen, phosphate and potassium. Solar C also contains additional natural sugars from molasses which make it an ideal product for use under high stress levels, aiding plant recovery.

- Macro and micro-nutrient formulation
- A true foliar feed, absorbed through the leaf
- Fast acting formulation
- Ensures adequate carbohydrates and amino acids

Approximate	Longevity	2-3 weeks			
Cutting Heigl	ht	Any			
Nitrogen Sou	ırce	11.00% urea			
Trace Elemen	ts	See page 60			
Guaranteed A	Analysis	11-7-7 + Fe			
Product Co	de	IG040105			
Pack Size	10 lt	Pack Coverage	5,000-10,000m ²		

Application Information

Application	10-20 lt/ha					
Water Rate	Method Spraye			Sprayer		
Nu	ıtrient leve	ls applied (ko	g/ha) from o	ne ap	plicati	ion
	10 lt/ha				t/ha	
N 1.1	P ₂ O ₅ 0.7	K ₂ O 0.7	N 2.2	P ₂ O ₅	1.4	K ₂ O 1.4

Suggested use period

Solar Ca+Mg

Solar Ca+Mg has been developed for application to turf containing low levels of calcium and magnesium. It can be applied regularly with low application levels, to help provide added colour to the turf. The added calcium in Solar Ca+Mg is vital as it has been shown the calcium is often deficient in managed sports turf situations.

- Strengthens the plant and provides added green up
- Minimises top growth
- Fast acting formulation that can be used in tank mix
- A true foliar feed, absorbed through the leaf

Approximate	Longevity	2-3 weeks		
Cutting Height		Any		
Trace Elemen	ts	See page 60		
Guaranteed A	Analysis	9% CaO, 4% MgO		
Product Cod	de	IG040106		
Pack Size	10 lt	Pack Coverage	10,000m²	

Application Information

Application Rate				10 lt/ha							
Water Rate 300-600 lt/ha			Meth	od		S	prayer				
Suggested				ested	use p	eriod					
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

Solar Eclipse

Solar Eclipse is a manganese sulphate product, designed to address manganese deficiencies and therefore help deter stress and disease pressures from the plant. The foliar nature of Solar Eclipse allows the manganese to be absorbed through the plant leaf, rather than the roots which are more susceptible to diseases.

- Improves plant health
- A true foliar feed, absorbed through the leaf
- Fast acting formulation
- Addresses Manganese deficiencies

Approximate Longevity		2-3 weeks			
Cutting Height		Any			
Guaranteed A	Analysis	15% Mn, 9% SO ₃			
Product Co	de	IG040108			
Pack Size	10 lt	Pack Coverage	5,000-10,000m ²		

Application Information

	Application Rate		2-5 lt/ha		
l	Water Rate	300-600 lt/ha	Method	Sprayer	
ı					

Suggested use period

an feb mar apr may jun jul aug sep oct nov dec

Solar Pro-Active

Solar Pro-Active is a truly foliar feed, high in phosphite, designed to help dramatically reduce plant stress during the summer months. Solar Pro-Active is fully systemic, and is available in a fast acting, stable tank mixable formulation.

- Spring/summer applications boost plant growth, particularly in low temperatures
- Late summer and autumn applications promote turf hardness
- Boosts plant health
- Improves disease resistance

_						
	Approximate	Longevity	3-4 weeks			
	Cutting Heigl	ht	Any			
	Nitrogen Source		4.00% ammonium			
	Guaranteed A	Analysis	4-43-19			
	Product Code		IG040104			
	Pack Size	2.5 lt	Pack Coverage	10,000m ²		

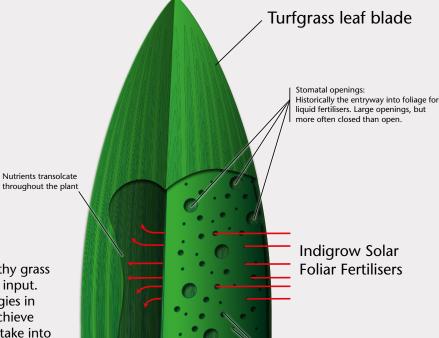
Application Information

Application Rate			2.5 lt/ha				
Water Rate 300-600 lt/ha			Method			Sprayer	
Nu	utrient l	levels	applied (kg	g/ha) from o	ne ap	plicati	on
	2.5 lt/ha						
N 0.10 P ₂ O ₅ 1.08 K ₂ O 0.48							

Suggested use period







Solar Foliar Feeds

Turf managers are having to maintain healthy grass swards with reduced nutrient and financial input. The use of advanced formulation technologies in Solar foliar fertilisers helps turf managers achieve these aims. All products in the Solar range take into account:

- Long term storage stability
- Compatibility with other products
- Ability to cover the leaf surface
- Good adhesion and rainfastness
- Cuticle penetration and leaf uptake
- Mobility and translocation within the plant
- Mixing, miscibility or dissolution in spray water

During the summer, roots are under stress and therefore limited in their

ability to take up nutrients.

Transcticular pore spaces: These numerous but smaller pores are

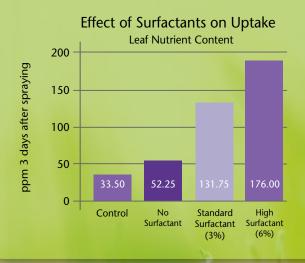
Solar Foliar Fertilisers are formulated so the molecules are small enough to pass

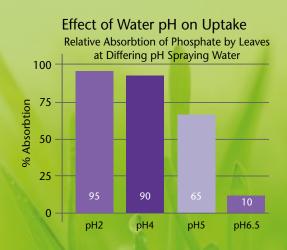
through these pore spaces and penetrate the leaf.

always open.

Uptake Efficiency of Solar Foliar Feeds

The efficiency of uptake of many nutrient elements is enhanced by a slightly acidic solution and, where possible, formulations are buffered to take account of this. The spreading action of the surfactants allows uptake though the cuticle of the leaf and does not limit penetration to the stomata.





Liquid, Soluble and Granular Fertilisers



Indigrow's Fusion range comprises granular, soluble and liquid fertilisers, as well as iron supplements. The granular fertilisers have been designed to provide turf managers with a cost effective fine turf fertiliser. The liquid fertilisers have been designed to provide an economic alternative to other foliar feed formulations.

The Fusion granular products are based on a 1.25mm granule, and combine a range of readily available major, secondary and minor nutrients. The varied analyses suit differing seasonal conditions, and the added magnesium and full trace element package make the product suitable to a range of scenarios.

The Fusion BioGreen Liquids and Fusion soluble fertilisers can be used on all turf types in all seasonal conditions. They have all been developed to be 'spoonfed' throughout the year or to complement a granular fertiliser programme. Fusion BioGreen liquids contain 100% soluble and plant available nutrients as well as a useful complete amino acid and trace element package.

Applications of Fusion iron supplements will result in dark green turf and will help to toughen the sward, providing disease and stress resistance. Many of our soluble and granular iron supplements have full micronutrient packages, boosting nutrient levels on all turf types.

Product	Analysis	App. Rate	Longevity	Pack Coverage	Pack Size	Code
BioGreen High N	28-0-0	40-80 lt/ha	2-3 weeks	2,500-5,000m² 2.5-5 ha 12.5-25 ha	20 lt 200 lt 1,000 lt	IG050110 IG050111 IG050112
BioGreen NPK	18-9-9	40-80 lt/ha	2-3 weeks	2,500-5,000m² 2.5-5 ha 12.5-25 ha	20 lt 200 lt 1,000 lt	IG050120 IG050121 IG050122
BioGreen NK	15-0-12	40-80 lt/ha	2-3 weeks	2,500-5,000m² 2.5-5 ha 12.5-25 ha	20 lt 200 lt 1,000 lt	IG050130 IG050131 IG050132
BioGreen Anti-Stress	8-0-12	40-80 lt/ha	2-3 weeks	2,500-5,000m² 2.5-5 ha 12.5-25 ha	20 lt 200 lt 1,000 lt	IG050140 IG050141 IG050142
BioGreen Spring Starter	15-0-0 + 33% S	40-80 lt/ha	2-3 weeks	2,500-5,000m ² 2.5-5 ha 12.5-25 ha	20 lt 200 lt 1,000 lt	IG050150 IG050151 IG050152
<u>Liquid Fe</u>	6.5% Fe	10-20 lt/ha	4-6 weeks	2,500-5,000m ² 2.5-5 ha 12.5-25 ha	20 lt 200 lt 1,000 lt	IG050102 IG050103 IS050104
<u>Soluble Fe</u>	20% Fe	20 kg/ha	2-4 weeks	5,000m²	10 kg	IG050203
Soluble NPK	32-5-10	20 kg/ha	2-4 weeks	10,000m²	20 kg	IG050201
<u>Soluble N</u>	46-0-0	20 kg/ha	2-4 weeks	10,000m²	20 kg	IG050202
<u>Soluble High K</u>	13-0-46	20 kg/ha	2-4 weeks	10,000m²	20 kg	IG050204
Granular	20% Fe, 8% Mn, 5% MgO, 1.5% Zn, 0.45% Cu	10-20 g/m²	8-12 weeks	1,000-2,000m²	20 kg	IG050301
Tracer	8.4% Fe, 1.81% Mn, 1.16% Zn, 1.06% B, 0.23% Cu, 0.15% Mo	0.5-1 kg/ha	2-4 weeks	5-10 ha	5 kg	IG050209

Fusion BioGreen High N 28-0-0

Fusion BioGreen High N is comprised of a 28-0-0 analysis. The nitrogen sources provide immediate and long term nutrient availability. It is designed to alleviate plant stress, as well as provide balanced nutrition to the plant. Fusion BioGreen High N also utilises a three-way breakdown process to provide controlled plant growth.

- For use on all managed turf areas
- Balanced source of urea, ammonium and nitrate nitrogen
- Contains added amino acids and trace elements
- Ideal as a tank mix partner where nitrogen is required

Approximate	Longevity	2-3 weeks	
Cutting Heigl	ht	Any	
Nitrogen Sou	irce	14.00% urea, 7.00 7.00% nitrate)% ammoniacal,
Trace Elemen	ts	B, Cu, Fe, Mn, Mo	, Zn
Guaranteed A	teed Analysis 28-0-0		
Product Co	de	IG050110	
Pack Size	20 lt	Pack Coverage	2,500-5,000m ²
Product Co	de	IG050111	
Pack Size	200 lt	Pack Coverage	2.5-5 ha
Product Co	Product Code		
Pack Size	1,000 lt	Pack Coverage	12.5-25 ha

Application Information

Application	40-80 lt/ha					
Water Rate	30	0-600 lt/ha	Method	Method		Sprayer
Nutrient levels applied (kg/ha) from one application						
	40 lt/ha		80 lt/ha			
N 11.2	P ₂ O ₅ 0.0	K ₂ O 0.0	N 22.4	P ₂ O ₅	0.0	K ₂ O 0.0
Suggested use period						

Fusion BioGreen NPK 18-9-9

Fusion BioGreen NPK 18-9-9 is a balanced liquid feed containing trace elements and amino acids. Fusion BioGreen NPK contains ammoniacal and urea nitrogen sources which provide a two stage nitrogen source. This ensures there is always nitrogen available to the plant during the main season, without promoting excessive growth.

- For use on all managed turf areas
- Balanced NPK feed for Summer use
- Contains available phosphate and potash
- Designed to work in a tank mix with all other Fusion liquids

Approximate	Longevity	2-3 weeks		
Cutting Heig	ht	Any		
Nitrogen Sou	ırce	15.48% urea, 2.52	2% ammoniacal	
Trace Elemen	ts	B, Cu, Fe, Mn, Mo	, Zn	
Guaranteed Analysis		18-9-9		
Product Co	Product Code			
Pack Size	20 lt	Pack Coverage	2,500-5,000m ²	
Product Co	de	IG050121		
Pack Size	200 lt	Pack Coverage	2.5-5 ha	
Product Code		IG050122		
Pack Size	1,000 lt	Pack Coverage	12.5-25 ha	

Application Information

Application	40-80 lt/ha					
Water Rate	300	0-600 lt/ha	Method	ethod Spraye		
Nutrient levels applied (kg/ha) from one application						
	40 lt/ha			80 I	t/ha	
N 7.2	P ₂ O ₅ 3.6	K ₂ O 3.6	N 14.4	P ₂ O ₅	7.2	K ₂ O 7.2

Suggested use period

Fusion BioGreen NK 15-0-12

Fusion BioGreen NK contains balanced levels of N and K both of which are used in large quantities throughout the growing season. The balance of nitrogen and potassium helps to strengthen the sward, without promoting excessive growth. Fusion BioGreen NK does not contain any phosphate and can be used in a tank mix with other Fusion BioGreen liquids.

- For use on all managed turf areas
- For use in high phosphate soils
- Ideally suited for regular application in small quantities
- Phosphate free for management of high phosphate soils

Approximate	Longevity	2-3 weeks			
Cutting Heig	ht	Any			
Nitrogen Sou	ırce	15.00% urea			
Trace Elemen	its	B, Cu, Fe, Mn, Mo	, Zn		
Guaranteed Analysis		15-0-12			
Product Co	Product Code				
Pack Size	20 lt	Pack Coverage	2,500-5,000m ²		
Product Co	de	IG050131			
Pack Size	200 lt	Pack Coverage	2.5-5 ha		
Product Code		IG050132			
Pack Size	1,000 lt	Pack Coverage	12.5-25 ha		

Application Information

Application Rate				40-80 lt/ha			
Water Rate	:	300-600 lt/ha		Method		Sprayer	
Nutrient levels applied (kg/ha) from one application							
40 lt/ha				80 l	t/ha		
N 6.0	P ₂ O ₅	0.0	K ₂ O 4.8	N 12.0 P ₂ O		0.0	K ₂ O 9.6

Suggested use period

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

Fusion BioGreen Anti-Stress 8-0-12

Fusion BioGreen Anti-Stress is a urea based all year round feed. It has a low nitrogen content, enabling it to be easily used with other products in a tank mix. Whilst the Fusion BioGreen Anti-Stress can be used all year round, it is also ideal as an autumn and winter feed using lower application rates.

- For use on all managed turf areas
- Low nitrogen levels allow easy tank mixing
- Provides good colour with minimal growth levels
- High potassium levels provide good stress relief

Approximate	Longevity	2-3 weeks				
Cutting Heig	ht	Any				
Nitrogen Sou	irce	8.00% urea				
Trace Elemen	ts	B, Cu, Fe, Mn, Mo	, Zn			
Guaranteed A	Analysis	8-0-12				
Product Co	Product Code					
Pack Size	20 lt	Pack Coverage	2,500-5,000m ²			
Product Co	de	IG050141				
Pack Size	200 lt	Pack Coverage	2.5-5 ha			
Product Code		IG050142				
Pack Size	1,000 lt	Pack Coverage	12.5-25 ha			

Application Information

Application Rate			40-80 lt/ha			
Water Rate	30	0-600 lt/ha	Method Spra			Sprayer
Nutrient levels applied (kg/ha) from one application						
40 lt/ha				80 I	t/ha	
N 3.2	P ₂ O ₅ 0.0 K ₂ O 4.8		N 6.4 P ₂ O ₅		0.0	K ₂ O 9.6

Suggested use period

Web: www.indigrow.com Email: growth@indigrow.com



Fusion BioGreen Spring Starter 15-0-0 + 33% S

Fusion BioGreen Spring Starter is based on a novel ammonium sulphate complex and is ideally suited for a rapid response early in the season. Along with all other Fusion BioGreen liquids it contains a full range of amino acid and trace elements.

- For use on all managed turf areas
- Ideal liquid spring starter
- Provides good cool season performance
- Acidifying liquid turf hardener

Approximate	Longevity	2-3 weeks				
Cutting Heig	ht	Any				
Nitrogen Sou	ırce	15.00% ammoniu	m			
Trace Elemen	its	B, Cu, Fe, Mn, Mo	, Zn			
Guaranteed A	Analysis	15-0-0 + 33% S				
Product Co	Product Code					
Pack Size	20 lt	Pack Coverage	2,500-5,000m ²			
Product Co	de	IG050151				
Pack Size	200 lt	Pack Coverage	2.5-5 ha			
Product Code		IG050152				
Pack Size	1,000 lt	Pack Coverage	12.5-25 ha			

Application Information

Application Rate				40-80 lt/ha			
Water Rate 300-600 lt/ha				Method		9	Sprayer
Ni	Nutrient levels applied (kg/ha) from one application						
	40 lt/ha				80 l	t/ha	
N 6.0	N 6.0 P ₂ O ₅ 0.0 K ₂ O 0.0		N 12.0 P ₂ O ₅		0.0	K ₂ O 0.0	

Suggested use period

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

Fusion Liquid Fe

Fusion Liquid Fe is a concentrated liquid iron formulation containing 6.5% Fe for application throughout the year. Iron is an essential constituent of the chlorophyll molecule. Regular applications of Fusion Liquid Fe will stimulate chlorophyll production. The latest improvements to Fusion Liquid Fe mean that it is now fully compatible in a tank mix with other products.

- For use on fine turf areas including golf and bowling greens
- Provides 6 weeks of green up without blackening
- Does not encourage excessive growth
- Toughens sward providing disease and stress resistance

Approximate	Longevity	4-6 weeks
Cutting Heigl	ht	Any
Guaranteed A	Analysis	6.5% Fe
Product Code		IG050102
Pack Size	20 lt	Coverage 5,000-10,000m²
Product Co	de	IG050103
Pack Size	200 lt	Coverage 5-10 ha
Product Code		IG050104
Pack Size	1,000 lt	Coverage 25-50 ha

Application Information

Application Rate					10-20 lt/ha						
Wat	Water Rate 300-600 lt/ha		Method			Sprayer					
	Suggested use period										
JAN											

Fusion Soluble Fe

Fusion Soluble Fe is a highly soluble ferrous sulphate powder. It contains 20% iron for the economic treatment of large areas of turf. Fusion Soluble Fe has been designed to dissolve quickly in water, and once applied to the turf the sulphur in Fusion Soluble Fe helps to temporarily reduce the pH levels in the soil.

- For use on tees, fairways and sports fields
- Produces dark green turf in all conditions
- Toughens sward for improved disease resistance
- Tank mix compatible with all other Fusion Soluble products

Approximate	Longevity	2-4 weeks
Cutting Heigl	ht	Any
Guaranteed Analysis		20% Fe
Product Code		IG050203
Pack Size 10 kg		Coverage 5,000m²

Application Information

Арр	licatio	n Rate						20 k	g/ha		
Wate	Water Rate			-600 l	t/ha	Method Sprayer					
				Sugg	ested	I use period					

Fusion Soluble NPK 32-5-10

Web: www.indigrow.com Email: growth@indigrow.com

Fusion Soluble NPK contains 100% soluble, readily available, plant food. It has been designed to provide a constant source of plant available nutrients irrespective of weather conditions. Fusion Soluble NPK should be used as part of a planned nutrient programme and can be spoon fed throughout the year.

- Use on greens, tees, fairways & managed amenity sports turf
- Fully balanced nutrient formulation
- Economic alternative to conventional liquid fertiliser
- Contains comprehensive list of trace elements

Approximate	Longevity	2-4 weeks			
Cutting Heigl	ht	Any			
Nitrogen Sou	rce	27.00% urea, 1.90% ammoniacal, 2.90% nitrate			
Trace Elemen	ts	B, Cu, Fe, Mn, Zn, Mo			
Guaranteed A	Analysis	32-5-10			
Product Code		IG050201			
Pack Size	20 kg	Coverage 10,000m²			

Application Information

Applicatio	n Rate		Application Rate					20 kg/ha Method Sprayer g/ha) from one application		
Water Rate	300-600 lt/ha			Method Sprayer					•	
Nutrient levels applied (kg/ha) from one application										
	20kg/ha									
N 6.4	P ₂ O ₅ 1.0 K ₂ O 2.0			2.0						
Suggested					use p	eriod				
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Fusion Soluble N 46-0-0

Fusion Soluble N is a highly soluble source of nitrogen. It has been designed to work as a standalone product, or in conjunction with other fertilisers to boost nitrogen content in the soil. Fusion Soluble N is a cost effective solution for managers with large areas of turf to feed and should be used as part of a planned nutrient programme.

- High nitrogen formulation
- Provides guick green up and steady growth
- Cost effective alternative to conventional liquid fertiliser
- Use on greens, tees, fairways and managed amenity sports turf

Approximate Longevity		2-4 weeks		
Cutting Heigl	ht	Any		
Nitrogen Sou	irce	46.00% urea		
Trace Elemen	ts	B, Cu, Fe, Mn, Zn, Mo		
Guaranteed A	Analysis	46-0-0		
Product Code		IG050202		
Pack Size	20 kg	Coverage 10,000m ²		

Application Information

Application Rate				20 kg/ha				
Water Rate 300-600 lt/ha			Method Sprayer					
N	utrient	level	s applied (ko	g/ha) from o	ne ap	plicati	on	
	20kg	g/ha						
N 9.2 P ₂ O ₅ 0.0 K ₂ O 0.0								
	Suggested use period							

Fusion Soluble High K 13-0-46 Fusion Soluble High K contains a high concentration of potassium.

The potassium provides additional cell wall strength and drought control for the plant. It is an ideal spring application product, providing excellent green up and growth for up to four weeks. Fusion Soluble High K should be used as part of a planned nutrient programme.

- Use on greens, tees, fairways & managed amenity sports turf
- High potassium formulation
- Good spring starter
- Provides excellent cool temperature response

Approximate	Longevity	2-4 weeks		
Cutting Heigh	nt	Any		
Potassium Source		13.00% potassium nitrate		
Trace Elemen	ts	B, Cu, Fe, Mn, Zn, Mo		
Guaranteed A	nalysis	13-0-46		
Product Code		IG050204		
Pack Size 20 kg		Coverage 10,000m²		

Application Information

Application	20 kg/ha					
Water Rate 300-600 lt/ha			Method		9	Sprayer
N	utrient level	ls applied (k	g/ha) from o	ne ap	plicati	on
N 2.6						

Suggested use period

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OCT NOV DEC



Web: www.indigrow.com Email: growth@indigrow.com



Fusion Granular (Slow Release Fe)

Fusion Granular is a mix of iron, magnesium, manganese, zinc, copper and boron. All of the nutrients are complexed with natural carbohydrate and sugars, ensuring that the micronutrients are in their most easily assimilated form. Fusion Granular has been designed to provide minimal initial water solubility, with more nutrients being released during the 12 week period.

- For use on managed fine turf
- Excellent source of slow release iron
- Provides truly long lasting release of micronutrients
- Additional product details available on page 58

Approximate	Longevity	8-12 weeks			
SGN		100			
Cutting Heigl	nt	> 2mm			
Trace Elemen	ts	20% Fe, 8% Mn, 5% MgO, 1.5% Zn, 0.5% Cu, 0.45% B			
Product Code		IG050301			
Pack Size 20 kg		Coverage 1,000-2,000m ²			

Application Information

Appl	licatio	n Rate	!			10-20 g/m²					
Wate	er Rat	e		N/A		Method Spreader			r		
				Sugg	ested	l use period					

Fusion Tracer

Fusion Tracer is a soluble trace element package and has been developed to include a high concentration of micronutrients. This enables it to be used on turf areas where the availability of trace elements is minimal. Fusion Tracer is a highly efficient formulation for foliar application to a wide range of managed amenity turf.

- Particularly effective on sand-based greens
- Designed to work on soils with high pH levels
- Compatible with most approved pesticides
- Additives improve leaf penetration, uptake and nutrient absorption

Approximate	Longevity	2-4 weeks			
Cutting Heigl	nt	Any			
Trace Elemen	ts	8.4% Fe, 1.81% Mn, 1.16% Zn, 1.06% B, 0.23% Cu, 0.15% Mo			
Product Cod	de	IG050209			
Pack Size	5 kg	Coverage 5-10 ha			

Application Information

Application Rate		0.5-1 kg/ha				
Water Rate	300-600 lt/ha	Method	Sprayer			

Suggested use period



Fusion Granular - Slow Release Iron and Micronutrients

Fusion Granular is a mix of iron (20%), manganese (8%), magnesium (5%), zinc (1.5%), copper (0.5%) and boron (0.45%) all complexed with natural carbohydrates and reducing sugars ensuring that the micronutrients are in a form as that the plant easily assimilates. Initial water solubility of the small 1mm (SGN 100) sucrate granule is low but the diagram shows how this changes over time. This results in a true slow release micronutrient formulation lasting up to 12 weeks.



Fusion Tracer The Complete Micronutrient Package

Micronutrient packages are not utilised enough by turf managers. The addition of a complete micronutrient package, such as Fusion Tracer, to a tank mix of liquid or soluble fertilisers or pesticides can improve the overall health of the plant. Micronutrient packages will also improve the plants tolerance to disease and stress, leaving a healthier looking plant which requires less attention. Fusion Tracer combines all of the essential elemets in a fully soluble formulation. Fusion Tracer contains 8.4% added iron which helps to ensure added plant green up without promoting excess growth.





Molecular Seaweed and Carbohydrate Extracts



Indigrow's Compass brand comprises a unique range of molecular seaweed and carbohydrate extract products. These seaweed products are produced using hand harvested ascophyllum nodosum, grown at a renewable, sustainable and environmentally friendly source.

Compass products are seaweed based, utilising its ability to stimulate root growth. The seaweed helps the plant to produce thicker and stronger stems leading to an increase in vegetative growth.

The seaweed used in the Compass products is extracted from the plant using the latest cold cell burst technology. This technology is designed to keep all of the marine molecules intact, allowing them to maintain their bioactive properties. Compass molecular seaweed extract is rich in auxins, gibberellins, cytokinins, vitamins, minerals and other plant hormone-like molecules. The end product is concentrated and finely filtered to ensure maximum solubility and guarantee ease of application.

The hormones found in the seaweed also help to protect the plant at times of stress. This can include protection from disease, insects, cold weather and drought. These benefits help to ensure that the turf maintains its colour and strength, also ensuring that it can be used year round.

The Compass range helps with nutrient uptake. This is due to the indoles found in the seaweed extracts. As nutrient uptake is vital to the effectiveness of other liquid fertilisers, products in the Compass range are ideal partners to Indigrow's Solar and Fusion products, particularly the use of Compass BioActive in a tank mix.

Product	Analysis	App. Rate	Longevity	Pack Coverage	Pack Size	Code
Compass BioActive	-	10-20 lt/ha	4-6 weeks	5,000-10,000m ²	10lt	IG090101
Compass Granular	4-0-0 + 30% CaO	20-40g/m ²	4-6 weeks	500-1,000m ²	20kg	IG090105
Compass Composted Seaweed	2-2-2	35-75g/m²	4-6 weeks	250-575m²	20kg	IG090109



Compass Bio-Active

Web: www.indigrow.com

Compass Bio-Active is a highly concentrated, pure seaweed, liquid plant stimulant and soil conditioner. The Bio-Active product fully utilises the Indigrow cold water extraction process which prevents the loss of many beneficial nutrients. Compass Bio-Active can be used in a tank mix with Indigrow Fusion liquids and Solar products.

- Can be used as part of an organic fertiliser program
- Low application rates, usable on all amenity turf areas
- Applications will aid plant stress relief
- Nutrient breakdown available on page 64

Approximate	Longevity	4-6 weeks				
Cutting Heig	ht	Any				
Trace Elements		See page 60				
Product Code		IG090101				
Pack Size	10 lt	Pack Coverage	5,000-10,000 m ²			

Application Information

Application Rate					10-20 lt/ha						
Water Rate			300-600 lt/ha			Method			Sprayer		
Suggested use period											
										NOV	





Compass Granular 4-0-0+30% CaO

Compass Granular is a new generation, high-tech, homogenous, fine turf fertiliser with added seaweed. It is produced from the roots of the seaweed plant, resulting in a calcified seaweed soil conditioner with a small amount of added nitrogen, seaweed extracts and other minerals. Compass Granular is rich in calcium and magnesium resulting in improved seedling establishment and root growth, making it an ideal product for use after spiking, hollow coring, scarifying, turfing or overseeding.

- Regular applications help rectify calcium imbalance
- Natural plant hormones aid seedling germination
- Stress reliever for seedlings and established turf
- Usable on all amenity areas, all year round

Approximate	Longevity	4-6 weeks				
SGN		100				
Cutting Heigl	nt	> 2mm				
Nitrogen Sou	rce	4.00% urea				
Guaranteed A	Analysis	4-0-0 + 30% CaO, 2% MgO				
Product Code		IG090105				
Pack Size	20 kg	Pack Coverage 500-1,000 m				

Application Information

ı											
l	Application Rate					20-40 g/m²					
	Water Rate N/A				Meth	od		Spreader			
ı	Nutient levels applied (kg/ha) from one application										
l	20g/m²				40g/m²						
	N 0.8 P ₂ O ₅ 0.0 K ₂ O 0.0				0.0	N 1.6 P ₂ O ₅ 0.0 K ₂ O 0.0					0.0
	Suggested use period										
ı	JAN FEB								ОСТ	NOV	DEC

Compass Composted Seaweed

Compass Composted Seaweed is a 100% organic product. It comprises of fine 1mm homogenous prills, leading to long lasting micronutrient and biostimulant activity. Used as a soil improver, it builds up the humus structure of the soil, stimulates microbial activity, and provides a range of micro nutrients as well as vitamins and alginates. A single application provides a slow-acting, long lasting plant food which is broken down over a period of months by the soil bacteria providing a health benefit to all sports turf.

- Fully organic composted seaweed
- Regular application help rectify calcium imbalance
- Very easy to apply with low application rates
- Aids recovery after plant stress
- Full product specifications available on page 64

Approximate	Longevity	4-6 weeks				
SGN		150				
Cutting Heig	ht	Any				
Nitrogen Sou	ırce	2.00% organic				
Trace Elemen	ts	Mg, Mn, Zn, B, Cu				
Guaranteed A	Analysis	2-2-2				
Product Code		IG090109				
Pack Size	20 kg	Pack Coverage 250-575 m ²				

Application Information

Application Rate		35-75 g/m²						
Water Rate	N/A	Method Spreader						
Suggested use period								

JAN FEB

Compass Composted Seaweed Specifications

Item	Detail ingredients	
	Amino acid	
N-P ₂ O ₅ -K ₂ O	Vegetable Polysaccharide	6%
	Vegetable Fibre	
	Alagnic acid	
	Cytokinins	
Alga Bioactive matter	Auxins	20%
	Abscisic acid	
	Betaines	
	Seaweed organic matter	
Organic matter	Humic acid	70%
	Vegetable protein	



Compass Bio-Active Nutrient Breakdown

Carbohydrates :		Vitamin Analysis.	
Mannitol.	2.00%	Vitamin A Retinol.	12.00 ug/Kg.
Alginic acid.	6.70%	Vitamin B1	3.63 ug/Kg.
Methylpentosans.	3.30%	Vitamin B2	2.26ug/Kg.
Laminarins	3.60%	Vitamin B3	1.70ug/Kg.
Fucoidin	0.44%	Vitamin B6	14.00 ug/Kg.
Phenols/Polyphenols.	22.10mg/Kg.	Vitamin B12	15.00 ug/Kg.
		Vitamin C	1.62ug/Kg.
Major Nutrients		Vitamin D	34.00 ug/Kg.
Nitrogen as N.	0.37% weight.	Vitamin E	62.80 ug/Kg.
Phosphorus as P.	0.03% weight.	Vitamin K	0.60 ug/Kg.
Potassium as K.	0.29%		
		Amino Acid Analysis	
Secondary Nutrients		Alanine	2.74 ug/Kg.
Magnesium as Mg.	0.30%	Arginine	3.33 ug/Kg.
Sulphur as S.	0.70% weight.	Cystine	2.20 ug/Kg.
Calcium as Ca.	0.85%	Glycine	2.16 ug/Kg.
		Proline	2.00 ug/Kg.
Trace Elemental Analysis :		Serine	4.85 ug/Kg.
Boron as B.	< 0.0002 ppm.	Taurine	0.75 ug/Kg.
Barium as Ba.	< 0.0002 ppm.	Thiamine	1.48 ug/Kg.
Chlorine as Cl.	0.11%.	Tyrosine	1.07 ug/Kg.
Cobalt as Co.	2.56 ppm.		
Copper as Cu.	5.50 ppm.	Plant Hormones.	
Fluorine as F.	72.60ppm.	Betaines	2.26 ug/Kg.
Iron as Fe.	295.6ppm	Gibberillins	4.46 ug/Kg
Germanium as Ge.	< 0.0005 ppm.	Auxins	7.23 ug/Kg
Mercury as Hg.	< 0.00005 ppm.	Cytokinins	0.09 ug/kg
Iodine as I.	833.33 ppm.		
Manganese as Mn.	10.00 ppm.		
Antimony as Sb.	< 0.0002 ppm.		
Selenium as Se.	0.16 ppm.		
Zinc as Zn.	39.00 ppm.		
Zirconium as Zr.	< 0.00001 ppm.		



Wetting Agents and Liquid Applicators



The use of wetting agents on turf surfaces has increased over the years as more research has led to a greater understanding of dry patch. Waxy residues from the breakdown of plant tissue, bicarbonate deposits from fertilisers and irrigation water coat the soil particles which block up pores. This leads to localised dry spot areas which can induce turf wilt and eventually death of the grass sward.

On the back of this research, Indigrow has developed Magnum, its own range of wetting agents. Magnum wetting agents can work in a number of ways. Curative wetting agents are designed to be applied to an existing hydrophobic condition, whilst preventative wetting agents are applied in the spring and repeated throughout the season help to hold moisture in these potentially hydrophobic areas. Penetrant wetting agents open up the soil profile and allow excessive water to drain away and dispersant products help prevent the build-up of dew.

Magnum wetting agent application and fairy ring control programmes can be found on page 63.

Product	App. Rate	Longevity	Pack Coverage	Pack Size	Code
Magnum 357	10-20 lt/ha	4-8 weeks	5,000-10,000m ²	10 lt	IF020102
Magnum Calibre	10-20 lt/ha	4-8 weeks	5,000-10,000m ²	10 lt	IF020101
Magnum CO	10-20 lt/ha	4-8 weeks	5,000-10,000m ²	10 lt	IF020103
Magnum Citrique	2.5 lt/ha	4-8 weeks	10,000m²	2.5 lt	IF020105
Magnum Forty Four	20-40 lt/ha	2-4 weeks	5,000-10,000m ² 5-10 ha 25-50 ha	20 lt 200 lt 1,000 lt	IF020130 IF020131 IF020132
Magnum Granular	10 g/m²	4-6 weeks	1,000m²	10 kg	IF020150
Magnum One Shot	2-4 sachets/ha	2-4 weeks	5-10 ha	20 sachets	IF020108
Magnum Applicator Pellet	1 pellet/2,000- 3,000m ²	2-4 weeks	1-1.5 ha	5 pellets	IF020201
Magnum Blaster Pellet	1 pellet in min. 2,500 lt water	8-12 weeks	-	1 pellet	IF020205
Magnum Recoil	10 lt/ha	2-4 weeks	10,000m²	10 lt	IF020110
Magnum Pellet Pro Applicator	-	-	-	-	IF020401
Magnum Liquid Pro Applicator	-	-	-	-	IF020501

Magnum 357

Magnum 357 is a brand new type of turf wetting agent combining penetrant technology along with water holding polymer technology. It has been developed to both allow water to freely move through the surface as well as holding water in the root zone. This allows the plant to take more advantage any irrigation, saving time and money.

- Holds water in root zone for longer to improve plant health
- Prevents dry patch
- Provides deeper roots and improves root mass
- · Provides consistent plant health
- Use in a targeted wetting agent programme with Magnum Citrique (see page 63)

Approximate	Longevity	4-8 weeks		
Cutting Height		Any		
Product Code		IF020102		
Pack Size	10 lt	Pack Coverage	5,000-10,000m²	

Application Information

Application Rate			10-20 lt/ha								
Water Rate 300-600 lt/ha			Method S			prayer					
Suggested use period											
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG		ОСТ	NOV	DEC

Magnum Calibre

Magnum Calibre has been specially formulated to help prevent the development of hydrophobic soil conditions. It is a unique blend of environmentally friendly biodegradable turf wetting agent surfactants. On entering the root zone it attaches itself to soil particles and forms a film which not only helps water percolate evenly throughout the soil profile but will also help conserve water.

- Apply before onset of visible dry patch or localised dry spots
- Fully miscible in water but does not dissolve
- Ensures water penetration in areas difficult to wet
- Use in a targeted wetting agent programme with Magnum CO (see page 63)

Approximate Longevity		4-8 weeks		
Cutting Height		Any		
Product Code		IF020101		
Pack Size	10 lt	Pack Coverage	5,000-10,000m²	

Application Information

Application Rate		10-20 lt/ha						
Water Rate	300-600 lt/ha	Method	Sprayer					
Suggested use period								
JAN FEB MAR	APR MAY JUN	JUL AUG SEP	OCT NOV DEC					

Magnum CO

Magnum CO is a new blend of ingredients designed to tackle the problems associated with localised dry spots and dry patch. Magnum CO contains an organic acid designed to clean the sand particle and flush unwanted waxes, hydrocarbons, bicarbonate salts and minerals through the soil profile.

- Curative wetting agent
- Opens soil to water and air penetration
- Designed for use with Magnum Calibre as part of a targeted wetting agent programme (see page 63)

Approximate Longevity		4-8 weeks		
Cutting Height		Any		
Product Code		IF020103		
Pack Size	10 lt	Pack Coverage	5,000-10,000m ²	

Application Information

Application Rate				10-20 lt/ha							
Water Rate 300-600 lt/ha			t/ha	Met	Method Sprayer / Applicator Gun			iun			
Suggested use period											
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG		ОСТ	NOV	DEC

Magnum Citrique

Magnum Citrique is a natural blend of organic extracts and wetting agents based on refined plant oils. By enabling water penetration and maintaining correct moisture status, beneficial antagonistic bacteria are able to thrive and so combat disease and stress. Magnum Citrique should ideally be applied to the turf before the onset of dry soil conditions.

- Natural wetting agent
- Provides superior curative control of localised dry spots
- Reduces symptoms associated with fairy rings and dry patch
- Can be used with Magnum One Shot in very dry conditions
- Use in a targeted wetting agent programme with Magnum 357 (see page 63)

Approximate Longevity		4-8 weeks		
Cutting Height		Any		
Product Code		IF020105		
Pack Size	2.5 lt	Pack Coverage	10,000m²	

Application Rate		2.5 lt/ha				
Water Rate	300-600 lt/ha	Method	Sprayer			
Suggested use period						

Magnum Forty-Four

Magnum Forty-Four is an economic turf penetrant wetting agent ideally suited for opening the soil profile, maximising water penetration and dispersing excessive water away from the surface. Where excessive salts are a problem, it can also be used as part of flushing program. Magnum Forty-four can be used in an autumn/ winter targeted program to aid in the dispersal of heavy rainfall.

- Reduces excessive surface water
- Allows more efficient utilisation of irrigation or rainfall
- For use on large turf areas such as fairways and outfields
- Can be used in spray solutions to improve tank mix penetration

Approximate	Approximate Longevity 2-4 weeks			
Cutting Heigl	ht	Any		
Product Code		IF020130		
Pack Size	20 lt	Pack Coverage	5,000-10,000m ²	
Product Code		IF020131		
Pack Size	200 lt	Pack Coverage	5-10 ha	
Product Code		IF020132		
Pack Size	1,000 lt	Pack Coverage	25-50 ha	

Application Information

Appl	icatio	n Rate	!		20-40 lt/ha						
Wate	er Rat	e	300	-600 l	t/ha	Meth	od		S	prayer	
				Sugg	ested	use p	period				
											DEC

Magnum One Shot

Magnum One Shot is a highly concentrated penetrant wetting agent designed to give economical yet superior turf wetting and water penetration on hydrophobic soils. It can be used to aid the spread and penetration of foliar fertilisers. Magnum One Shot is contained in a sachet for large scale economic use and tank mixing.

- For use on large areas such as fairways and outfields
- Use prior to rain to aid irrigation and water movement
- Sachet provides a no mess solution
- Environmentally friendly and biodegradable

Approximate	Longevity	2-4 weeks				
Cutting Heigl	nt	Any				
Product Cod	de	IF020108				
Pack Size	20 sachets	Pack Coverage	5-10 ha			

	Appl	licatio	n Rate				2-4 sachets/ha						
ı	Wate	er Rat	e	300	-600 l	t/ha	Meth	od		Sprayer			
					Sugg	ested	use p	eriod					
	JAN		MAR	APR	MAY	JUN	JUL	AUG		ОСТ	NOV	DEC	
Г													



Web: www.indigrow.com Email: growth@indigrow.com





Magnum Granular

Magnum Granular is an innovative spreadable wetting agent containing a blend of super surfactants for fast water penetration into localised dry spots and hydrophobic soil or thatch. Magnum Granular utilises Zeolite technology as a carrier containing a new generation blend of super surfactants, giving preventative and curative activity. These surfactants help outperform conventional wetting agents by as much as 25 to 1. Water in after application.

- Designed for use in all fine turf environments
- Easy to apply follow directions for use
- Fully soluble when watered in
- Provides preventative and curative activity

Approximate	Longevity	4-6weeks			
SGN		100			
Cutting Heigl	ht	>2mm			
Product Co	de	IF020150			
Pack Size	10kg	Pack Coverage	1,000m²		

Application Information

Appl	icatio	n Rate				10 g/m²						
Wate	er Rat	e	٧	Vater ii	n	Meth	od	Sp	preader			
				Sugg	ested	use p	period					
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG		ОСТ	NOV	DEC	

Magnum Recoil

Magnum Recoil is a dew dispersant. It contains a specific blend of adjuvants, spreading agents and oils which form a barrier on the leaf blade, helping to disperse dew. The longevity of Magnum Recoil is dependent on the rate of grass growth and frequency of cutting.

- Can be used as part of an organic fertiliser program
- Low application rates
- Usable on all amenity turf areas
- Applications will aid plant stress relief

Approximate	Longevity	2-4 weeks				
Cutting Heigl	ht	Any				
Product Co	de	IF020110				
Pack Size	10 lt	Coverage	10,000m²			

ı														
	Application Rate							10 lt/ha						
	Wat	er Rat	e	100	-400 l	t/ha	Meth	od		Sprayer				
					Sugg	ested	use p	period						
	JAN		MAR	APR	MAY	JUL	AUG		ОСТ	NOV	DEC			

Magnum Applicator Pellet

Magnum Applicator Pellets are designed to be used in the Magnum Pellet Pro Applicator or other suitable syringing equipment to spot treat hydrophobic soils, hot spots and dry patch. They are hand held, as a result they can be precisely targeted to overcome localised problems.

- Newly improved formulation for added effectiveness
- Environmentally friendly and biodegradable
- Highly concentrated formulation
- Ideal for syringing localised dry spots

Approximate	Longevity	2-4 weeks				
Cutting Heigl	nt	Any				
Product Co	do	IF020201				
110ddct co	uc	11020201				

Application Information

I	Арр	licatio	n Rate					1 pelle	et/2,0	00-3,0	00m²	
	Water Rate N/A						Meth	od		Pellet Pro Applicator		
					Sugg	ested	use p	eriod				
	Suggested JAN FEB MAR APR MAY JUN							AUG	SEP	ОСТ	NOV	DEC

Magnum Blaster Pellet

Magnum Blaster Pellets are designed for use in the storage tank or in irrigation systems and will improve water penetration into the turf. The surfactant package contained in the Blaster Pellet gives the added advantage of lubricating sprinkler heads.

- Wetting agent applied with every irrigation
- Environmentally friendly and biodegradable
- Highly concentrated formulation

Approximate	Longevity	8-12 weeks
Cutting Heigl	nt	Any
Product Cod	de	IF020205

Application Information

Appl	icatio	n Rate						1 pe	ellet		
Water Rate at least 2,500 lt						Meth	iod		Dire irrig	ectly into ation tank	
				Sugg	ested	use p	eriod				
JAN FEB MAR APR MAY JUN						JUL	AUG	ОСТ	NOV	DEC	



Magnum Pellet Pro Applicator

The Magnum Pellet Pro Applicator comes complete with both the Magnum yellow cone nozzle and the Magnum cyclone precision nozzle giving ultimate flexibility of product application. The Magnum Pellet Pro Applicator has, as standard, a variable control 'shut off' lever and snap coupling.

- For applying wetting agent pellets

Ideal for treating localised dry spots and hydrophobic soils

Magnum Liquid Pro Applicator

The Magnum Liquid Pro Applicator is the ideal way to treat small turf areas with products in the Magnum range and other liquids. Excellent for spot treatments, it features a precision nozzle, lightweight durable nylon construction with high density poly 1250 ml bottle, pistol grip design and precise adjustable needle valve metering.

- Allows for accurate application of Magnum wetting agents
- Provides 100 litres per minute output
- Covers 300 m² in less than a minute
 - Isolation valve and Geka connector are included as standard

Product Code IF020501

Product Code

IF020401



Wetting agent programmes are essential in achieving a reduction in dry patch and fairy ring outbreaks. By alternating curative (Magnum CO) and preventative (Magnum Calibre) products, the waxy coating covering soil and sand particles is broken down. This process also helps with the rewetting of the soil profile. This approach helps to eradicate plant stress, providing a more consistent playing surface.

Please see our recommended programs for fine turf and outfield situations below:

Targeted Wetting Agent Programme: Greens and Tees

Product	Mar	Apr	May	Jun	Jul	Aug	Total
Magnum 357	20 lt/ha	-	10 lt/ha	-	10 lt/ha	-	40 lt/ha
Magnum Citrique	-	2.5 lt/ha	-	2.5 lt/ha	-	2.5 lt/ha	7.5 lt/ha

Targeted Wetting Agent Programme: Greens and Tees

Product	Apr	May	Jun	Jul	Aug	Sep	Total
Magnum CO	20 lt/ha	-	10 lt/ha	-	10 lt/ha	-	40 lt/ha
Magnum Calibre	-	20 lt/ha	-	10 lt/ha	-	10 lt/ha	40 lt/ha

Targeted Wetting Agent Programme: Fairways and Outfields

Product	Apr	May	Jun	Jul	Aug	Sep	Total
Magnum One Shot	2-4 sachets/ha	-	2-4 sachets/ha	-	2-4 sachets/ha	- 6	5-12 sachets/ha
Magnum Calibre	-	10 lt/ha	-	10 lt/ha	-	10 lt/ha	30 lt/ha

Fairy ring is caused by more than 60 basidiomycete fungi, including those producing the familiar puffballs and toadstools. The rings result from the activities of these fungi growing radially through the thatch or soil, rather than from a direct parasitic relationship with the turfgrass. Fairy ring occurs wherever grass is grown.

Type 1 - Rings that result in loss of turf at the outer margin of the ring.

Type 2 - Rings have outer margins that are darker green in colour than the surrounding turf. Fruiting bodies may or may not be found in association with Type 1 and 2 rings.

Type 3 - Rings exhibit a ring of fruiting bodies with no effect on the turf.

Wetting Agent Fairy Ring Control Programme: Magnum Calibre and Magnum CO

Product	Apr	May	Jun	Jul	Aug	Sep	Total
Magnum CO	20 lt/ha	-	10 lt/ha	10 lt/ha	10 lt/ha	-	50 lt/ha
Magnum Calibre	-	20 lt/ha	-	10 lt/ha	-	10 lt/ha	40 lt/ha
Spike before each application	Apply products se	perately	-				

Wetting Agent Fairy Ring Control Programme: Magnum Citrique and Magnum Calibre

Product	Apr	May	Jun	Jul	Aug	Sep	Total
Magnum Citrique	2.5 lt/ha	-	2.5 lt/ha	2.5 lt/ha	2.5 lt/ha	-	10 lt/ha
Magnum Calibre	-	20 lt/ha	-	10 lt/ha	-	10 lt/ha	40 lt/ha

Spike before each application. Apply products seperately.

Soil Conditioners and pH Buffers





As water resources become more scarce, an increasing number of boreholes are being used. Often this water is of poorer 'quality' and requires treatment to remove unwanted carbonates and bi-carbonates. Most commonly used acid are nitric, phosphoric and sulphuric - all of which present hazards to turf, the operative and the environment.

Following substantial research in this area, Indigrow have re-introduced their RePhlex brand and developed a new product to meet the changing climatic demands and the requirements of modern greenkeepers and groundsmen.

Further research in this area is being undertaken, and additions to this range can be expected over the next twelve months. For all of the latest information on the RePhlex range of products, please visit our website.

Product	Analysis	App. Rate	Longevity	Pack Coverage	Pack Size	Code
RePhlex LS	1.74% w/v CaO 4.65% w/v SO ₃	20 lt/ha	4 weeks	10,000m²	10 lt	IF010101



RePhlex LS

RePhlex LS is an organic acid derived from lignin, a natural and renewable raw material. When applied directly to soil or foliar sprayed, RePhlex LS will react with carbonate and bicarbonates and give a number of agronomic benefits, primarily by improving soil structure, water penetration and gaseous exchange.

- Acidifies irrigation water
- Removes unwanted carbonates and bi-carbonates from irrigation water
- Improves water penetration
- Helps to free up bound nutrients in alkaline soils

Approximate	Longevity	4 weeks				
Guaranteed A	Analysis	1.74% w/v CaO; 4.65% w/v SO ₃				
Cutting Heigl	nt	Any				
Product Co	de	IF010101				
Pack Size	10 lt	Pack Coverage	5,000 m²			

Application Information

Foliar Spray: Apply at 20 litres in 300-600 litres of water per hectare. Best results will be obtained if RePhlex LS is watered in after application.

Irrigation Water Treatment: Apply 1 litre in 2,000 litres of water. This is a general recommendation, specific recommendations to be made after water analysis.

c	_	aa+aa		
Sug	u	estea	use	period









Indicator Dyes, Spraying Aids and Turf Colourants



Indigrow has developed the Optik range of spray dyes, paints and spraying aids to help turf managers with difficult to spray chemicals and to maintain the functionality of their turf across many sports.

Optik spray pattern indicators help highlight overlapping sprays, missed areas, spray drift and blocked nozzles. These spray pattern indicators can be essential in ensuring the correct quantity of fertiliser or pesticide is applied.

Optik turf colourants and paint are available in a liquid concentrate and in spray cans so that they can be used as turf paint and as a divot mix colourant.

The spraying aids in the Optik range have been developed to improve chemical penetration, provide a foaming and anti-foam option, as well as providing an environmentally friendly chemical tank cleaner.

Product	App. Rate	Pack Size	Code
Optik GreenSeeker	50-65 lt/ha in 300-600 lt water per ha	10 lt	IG090301
Optik HeatSeeker	1.25-2.5 lt/ha in 300-600 lt water per ha	2.5 lt	IG090351
<u>Optik Plus - Blue</u>	250ml in 100 lt spray solution	10 lt	IG060101
Optik Plus - Green	250ml in 100 lt spray solution	10 lt	IG060103
Optik Blue wsp	Greens, tees and fine turf: 1 wsp in 200 lt spray solution Fairways and sports fields: 1-2 wsp in 200 lt spray solution	40 wsp	IG060150
Optik Isolator (ADJ No. 0674)	100-500 ml in 100 lt spray solution	5 lt	IG060801
Optik Anti-Foam	15-75 ml in 200 lt spray solution	1 lt	IG060171
Optik Foam Bout Marker	100 ml in 10 lt spray solution	2.5 lt	IG060175
Optik Tank Cleaner	1 It in 200 It water	5 lt	IG060177
Optik Line Marker Aerosol	As required	750 ml - White 750 ml - Yellow 750 ml - Red 750 ml - Blue	IG060201 IG060202 IG060203 IG060204

Web: www.indigrow.com Email: growth@indigrow.com





GreenSeeker

GreenSeeker is a premium turf paint and divot mix colourant. It has been developed to help restore a natural green colour to managed amenity turf during dormant growth periods as well as helping to mask damaged turf. GreenSeeker is a permanent green pigment and not a dye.

- Flexible application rates to suit all turf types
- Can be used to colour divot mix sand
- Long lasting formulation
- Contains no hazardous or harmful ingredients

Approximate	Longevity	Up to 12 weeks				
Product Code		IG090301				
Pack Size	10 lt	Pack Coverage	200-400 m ²			

Application Information

App	Application Rate					Turf colourant: 50-65 lt/ha Divot mix: 200 ml in 50 kg					
Water Rate (turf colourant) 300-60				-600 l	t/ha	Metl	nod		Sprayer		
Suggested use period											
JAN										NOV	

HeatSeeker

HeatSeeker has been developed to help raise soil temperatures in managed amenity turf during the autumn and winter months. In turn, this helps the turf to begin growing earlier in the season. This can help to increase the playing season, particularly in colder climates.

- Uniform, consistent, dark green colour
- Improved aesthetics of many turf types
- Helps turf to absorb UV light energy
- Flexible application rates for different colour shades

Approximate	Longevity	Up to 4 weeks				
Product Code		IG090351				
Pack Size	2.5 lt	Pack Coverage	5,000-10,000 m ²			

Application Rate					1.25-2.5 lt/ha						
Water Rate 300-600 lt/ha				Meth	od		Sprayer				
Suggested use period											
			APR	MAY	JUN	JUL	AUG			NOV	

Optik Plus (Spray Dye Marker)

Optik Plus is an enhanced spray pattern dye designed to highlight and help eliminate overlapping sprays, missed areas, spray drift or blocked nozzles. It may also be used for marking out temporary greens. Optik spray pattern dyes will remain visible for 24 - 48 hours, after which they will gradually fade depending on light intensity and/or rainfall. Available in Blue and Green formulations.

- Reduces the pH of spraying water, protecting pesticides from losing activity
- Surfactants help spread the droplets on the leaf surface
- Complexing agent to reduce the staining effect of the dye
- Anti-drift component to reduce chemical trespass

Approximate Longevity		24-48 hours			
Product Code		IG060101			
Pack Size	10 lt	Optik Blue Plus			
Product Code		IG060103			
Pack Size	10 lt	Optik Green Plus			

Application Information

Adding 250ml of Optik Plus to 100 litres of spraying water with a starting pH of 7.6 will reduce it to approx. pH 4.5.

Application Rate		250 ml			
Water Rate	100 lt	Method	Sprayer		

Suggested use period

Optik Blue WSP (Spray Dye Marker)

Optik Blue WSP are a blue spray pattern indicator powder packaged in water soluble packets (WSP) designed for easy, pre-measured, no mess applications. Designed to help eliminate overlapping sprays, missed areas, spray drift or blocked nozzles.

- Highly concentrated
- Easily added to spray tanks with no mess
- Dissolves completely in water
- Under normal conditions, remains visible for 24-48 hours

Approximate	Longevity	24-48 hours
Product Code		IG060150
Pack Size	40 wsp	

Application Information

Application Rate					1-2 wsp						
Water Rate 200				200 lt		Meth	nod		Sprayer		
				Sugg	ested	use p	period				
										NOV	



Optik Line Marker Aerosol

Optik Line Marker Aerosols are designed to mark out playing areas on turf and hard surfaces. They are available in four colours. Optik Line Marker will be dry to the touch in 20 minutes and fully cured within 24 hours. One can of paint will cover up to 100 metres of line, 2" wide.

- Available in four colours
- Turf friendly
- Can be used on turf and hard surfaces, including concrete, wood, metal, tarmac and artificial turf

Product Co	de	IG060201
Pack Size	750 ml	White
Product Co	de	IG060202
Pack Size	750 ml	Yellow
Product Co	de	IG060203
Pack Size	750 ml	Red
Product Co	de	IG060204
Pack Size	750 ml	Blue

Optik Isolator

Isolator is a multi-functional spraying aid adjuvant designed to reduce pH, improve chemical penetration into the leaf while at the same time acting as a 'sticker' for contact acting pesticides. Isolator is formulated to enhance the efficacy of most pesticides by giving optimum spray tank stability, accurate application and improved plant uptake and active ingredient translocation.

- Low foaming formulation
- Reduces chemical trespass
- Safe for use on all types of amenity turf
- Acts as an anti-drift agent

Approximate Longevity		N/A
ADJ. Number		0674
Product Code		IG060801
Pack Size	5 lt	

Application Information

For pH reduction use a 0.1% solution
To improve the efficacy of Glyphosate use a 0.25% solution
For a fully adjuvant effect use a 0.5% solution

ı	Application Rate					0.1-0.5% spray solution						
l	Water Rate N/A					Method				Sprayer		
					Sugg	ested	use p	eriod				
l											NOV	

Optik Anti-Foam

Optik Anti-Foam is a silicone based anti-foam and de-foaming agent. Optik Anti-Foam should ideally be added to the spray tank before a pesticide or product which is known to foam. Alternatively, if foaming is already present in the tank, Optik Anti-Foam can be added with agitation for the foam to be quickly quelled.

- Helps to prevent the initial build-up of foam
- Also acts as a de-foamer
- Contains 16% dimethylpolysiloxane

Approximate Longevity		N/A
11 3 1		IG060171
Pack Size	1 lt	

Application Information

Application Rate					15-75 ml						
Wate	er Rat	e	200 lt			Method			Sprayer		
Suggested				use p	period						
										NOV	

Optik Foam Bout Marker

Optik Foam Bout Marker produces a high quality, thick-bodied long lasting foam. The foam produced is deposited on the ground in large blobs rather than in narrow streaks. The size of foam blobs is dependent on the pressure and diameter of the boom and end drop hoses.

Can be used with all water types

Approximate	Longevity	N/A
Product Code		IG060175
Pack Size	2.5 lt	

Application Information

Application Rate					1% of spray solution						
Water Rate				N/A		Method			S	r	
				Sugg	ested	use p	period				
JAN										NOV	

Optik Tank Cleaner

Tank Cleaner is specially formulated to remove pesticide deposits and other debris, including oily substances, from tanks, hoses, booms, filters, screens and nozzles. Tank Cleaner was developed to handle difficult to clean agricultural chemicals, including sulfonylurea herbicides and sticky formulations.

- Removes deposits and other debris from tanks, hoses, filters, screens and nozzles
- Non-hazardous will not corrode equipment
- Harmless to turf grass and the environment

Product Co	de	IG060177
Pack Size	5 lt	

Water Rate 200 lt Directly into spray tar		1 lt				Application Rate				
	k	spray tank	ly into	Direct			200 lt		Water Rate	
Suggested use period				period	use p	ested	Suggeste			



The Upstream range of aquatic management products utilises environmentally friendly solutions to help maintain the perfect natural balance within the water ecosystem resulting in healthy and aesthetically pleasing water features and displays.

The product range has been designed to help control weed growth and algae in key aesthetic landscape and amenity areas, preventing them from becoming overgrown or eyesores. This can include the growth of algae, accumulation of leaves and discolouration from suspended soil particles.

All of the Upstream aquatic management products utilise environmentally sensitive ingredients. No products within the range contain harmful pesticides.

Product	App. Rate	Longevity	Pack Coverage	Pack Size	Code
Upstream BioClear	Initial: 1 wsp per 125m³ water Repeat: 1 wsp per 500m³ water	2-4 weeks	1,500-6,000 m³	12 wsp	IF030101
<u>Upstream Black</u>	1 lt per 2,000m³ water	2-4 weeks	2,000 m³	1 lt	IF030205

Upstream BioClear

Upstream Bio Clear contains a blend of colourless and odourless bacteria that quickly consume dissolved nutrients in the water, effectively starving the algae of its food source. Other strains of bacteria in the formulation also help to consume the buildup of organic material at the bottom of the water body such as leaves and other dead plant material.

- Natural and non-herbicidal control of algae growth
- Helps eradicate unsightly organic material in water
- For use prior to onset of algae growth
- Optimum efficiency in still or slow water above 10 degrees

Approximate	Longevity	2-4 weeks	
Product Code		IF030101	
Pack Size 12 wsp		Pack Coverage	1,500-6,000 m ³

Application Information

Appl	Application Rate					1 wps					
Water Rate		1	al: 125 eat: 50		Method			N/A			
	Suggested						period				
JAN FEB MAR APR MAY JUN					JUL	AUG	SEP	ОСТ	NOV	DEC	

Upstream Black

Upstream Black is a concentrated easy to use aquatic colourant. Natural dyes darken the water and preclude sunlight from promoting re-growth of algae and weeds whilst giving a much improved aesthetic appearance. Applied at the surface, it rapidly disperses downwards to provide a natural black colour within minutes.

- Liquid formulation allows flexible application rates
- Slows algae growth
- Designed for effective use with Upstream BioClear
- Should be used after Upstream BioClear has removed algae

Approximate Longevity		2-4 weeks	
Product Code		IF030205	
Pack Size 1 lt		Pack Coverage	2,000m³

ı												
ı	Application Rate			1 lt								
	Water Rate 2,000m³			Method				N/A				
	Suggested				use p	period						
ı	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG		ОСТ	NOV	DEC

Bunker Liners and Accessories



The SandCatcher product range is designed to enable golf course designers to achieve more exciting and demanding bunkers.

The SandCatcher range has been designed to minimise 'pick-up' and reduce the frequency that a club will get caught in the liner. Sand wash out is up to 75% less prevalent and the high loft non-woven nature of the products ensures better drainage and minimises the contamination of the soil beneath.

SandCatcher products are produced in a carbon neutral facility from recycled fibres. They are a truly environmentally friendly option.

Product	Pack Coverage	Pack Size	Code
SandCatcher 25	-	90 m²	IG105925
SandCatcher 75	-	40 m²	IG105975
SandCatcher Staples	33-62 m²	500	IG105901

SandCatcher 25

SandCatcher 25 is specifically engineered to be installed in bunker bases to both stabilise the sand and stop contamination from the soil beneath whilst improving drainage and aesthetics. Compared to other products designed for bunker faces, SandCatcher 25 forms a denser, more compact three dimensional matrix leading to improved performance.

- Designed for use in bunker bases
- Prevents sand from contaminating soil beneath liner
- Improves draining and aesthetics
- Stabilises the sand

Product Code		IG105925		
Pack Size	90 m²	Pack Coverage	90 m²	

SandCatcher 75

SandCatcher 75 is specifically engineered for bunker faces. It will form an even three dimensional matrix with which to hold sand on the steep slopes of faces, stabilise the bunker wall leading to improved aesthetics and increased drainage in the most demanding situations.

- Designed for use in bunker faces
- Prevents sand from contaminating soil beneath liner
- Improves draining and aesthetics
- Stabilises the sand

Product Co	ode	IG105975	
Pack Size	40 m²	Pack Coverage	40 m²

SandCatcher Staples SandCatcher Staples are a high grade 6"

SandCatcher Staples are a high grade 6" steel tool used to hold both SandCatcher 25 and 75 bunker liners in place, even in the most demanding situations.

- Innovative
- Cost effective

	Product Co	de	IG105901	
l	Pack Size	500	Pack Coverage	33-62 m²

Fungicides, Herbicides and Biocides



Plant Protection Products have become more prevalent in recent years as amenity turf managers have increased their aesthetic aspirations. As a result, Indigrow has developed a selection of Plant Protection Products designed to help control a wide range of diseases, weeds and pests in managed amenity situations.

Indigrow's Plant Protection Products are some of the newest additions to our product range and are designed to treat a variety of turf problems.

Our Plant Protection Products range has grown and developed over the last 12 months and is expected to expand further over the next year as new products are developed.

Product	Registration No.	App. Rate	Longevity	Pack Coverage	Pack Size	Code
<u>Continuum</u> (turf fungicide)	MAPP No: 15600	1 lt/ha in 500 lt water	4 weeks	5,000 m²	500 ml	IG070301
<u>Tipulex</u> (insecticide)	MAPP No: 15757	1.5 lt/ha in 200-1,000 lt water	-	3.3 ha 1.3 ha	5 lt 2 lt	IG070501 IG070503
Opal Green (moss biocide)	HSE No: 9114	5 lt/1000 m ² in 50 lt water	4 weeks	1,000 m²	5 lt	IG070101

Continuum (Turf Fungicide)

Continuum is both a systemic and contact fungicide, developed to both cure and prevent a variety of diseases on managed amenity turf. Continuum has a low application rate and is rainfast within one hour, making it an ideal fungicide for year round use, particularly in the autumn and winter months.

- For use on golf courses, sports fields, bowling greens and cricket pitches as well as on lawns and in parks
- Designed to cure and/or prevent Anthracnose, Dollar Spot, Fusarium Patch, Leaf Spot, Red Thread and Rust
- Can be used in low temperatures as long as the turf is not frozen

Approximate	Longevity	4 weeks	
MAPP Numb	er	15600	
Active Ingredients		tebuconazole (200 trifloxystrobin (100	g/l) 0 g/l)
Product Co	de	IG070301	
Pack Size	500 ml	Pack Coverage	5,000 m ²

Further Application Information:						Maximum 2 applications per year									
Application Rate						1 lt/ha									
Wate	Water Rate 400-500 lt/ha					Meth	od		Sprayer						
				Sugg	ested	use p	period								
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG		ОСТ	NOV	DEC				



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Opal Green (Moss Biocide)

Opal Green is based around a blend of organic acids, biocides and surfactants. When applied to the surface, the surfactants allow the acid and biocide to spread and penetrate the moss or algae. The acid then kills them directly by burning. For more permeable surfaces such as artificial turf a higher water rate of 1,000 lt/Ha should be used.

- Excellent moss control
- Hard surface weed control
- Use on concrete, asphalt, tarmac, paving, artificial surfaces
- Effective for use on algae, moulds and fungi

Approximate	Longevity	4 weeks					
HSE Number		9114					
Active Ingred	ients	Alkyl (C12 - C14) Dimethyl Benzylammonium Chloride (4.5%)					
Product Co	de	IG070101					
Pack Size	5 lt	Pack Coverage 1,000 m ²					

Application Information

	Further Application Information:						Apply using surface spray, or with brush or mop Make new solution daily								
Application Rate						50 lt/ha									
ı	Water Rate 500 lt/ha				na	Method Sprayer									
					Sugg	ested	use p	eriod							
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC			



Tipulex (Insecticide)

Tipulex is a fast acting and powerful insecticide which has been developed for the control of frit fly and leatherjackets. Both of these insects can do extensive damage to managed amenity turf, and Tipulex should be used during the winter months to maximise control.

- Controls frit fly and leatherjackets
- Provides lasting control
- Easy to use formulation

Approximate	Longevity	Apply once yearly						
MAPP Number		15757						
Active Ingredients		chlorpyrifos (44.65% w/w)						
Product Code		IG070501						
Pack Size	5 lt	Pack Coverage 3.3 ha						
Product Co	de	IG070503						
Pack Size 2 lt		Coverage	1.3 ha					

Application Information

Further Applicati	oplication Rate		Apply in n larval high hen insecticides n damage is
Application Rate		1.5 l	t/ha
Water Rate	200-1,000 lt/ha	Method	Sprayer
	Cummented	.co monical	

Suggested use period

JAN FEB MAR ARP MAY JUN JUL AUG SEP OCT NOV DEC

Analysis, Testing, Training and Online Services



Indigrow offers a variety of services to their customers. Analysis, testing, training and record keeping are all fundamental elements of a turf managers job.

Indigrow have vastly increased their soil and water testing options for 2014 with the inclusion of organic matter testing and two levels of water testing. These are designed to help turf managers run a more natural programme on their turf, utilising the natural organic properties of the soil, as well as maximising their use of rain water.

Constant training and accurate record keeping are also vital for turf managers. With BASIS and FACTS registered trainers and the most advanced online record keeping tool, Indigrow have the ability to offer a full service to turf managers in the UK and throughout Europe and the rest of the world. The MyLogbook service is constantly being developed and updated to provide an ever better free service to turf managers.

Service	Analysis	Code
Soil Analysis	Basic/Comprehensive/Particle Size	IG020901/IG020902/-
Organic Matter Testing	Organic Matter/Organic Matter at 4 depths	-
Water Analysis	Basic/Comprehensive	-
<u>Training</u>	-	-
<u>MyLogbook</u>	-	www.myamenitylogbook.com





Soil Analysis Service

To understand the nutritional status of the soil it is important that regular soil samples are taken which will highlight the inherent fertility and also see if current fertiliser practice is, over time, altering the base level of nutrients. The other factor to take into account is the soil pH. Not only do different species tolerate different pH levels but nutrient availability is also linked to pH.

Early spring is the best time to sample as a programme of fertiliser application for the whole season can then be formulated by your Indigrow representative. Where problems are seen, samples can be taken at any time of year.

Analysis Service

To ensure accurate, impartial results Indigrow have retained the services of The Sports Turf Research Institute (STRI, Bingley) to undertake our analysis in their laboratory. A wide range of analyses and tests are offered.

The Soil Analysis kits contain instructions on how to take samples, plastic bags to put the samples in, relevant forms to record what type of sample and where it is from and a postage paid envelope (UK only) to send samples direct to the STRI. The STRI has a licence from the UK authorities to import and analyse samples from outside the UK, but in these cases the cost of carriage has to be paid. All soil samples are chargeable.

To complete an effective soil analysis test, ensure you read the pack instructions carefully, make sure your equipment is clean and dry, number and clearly label all your samples and complete all the paperwork and return them as instructed in the pack. Do not sample directly after applying fertiliser.



Annual Fertiliser Programmes

From the results of analysis and in consultation with the greenkeeper or groundsman, we are able to produce a comprehensive annual fertilser programme which calculates all costs and nutrient inputs.

Basic Soil Analysis

This basic analysis provides accurate results on the main limiting factors to quality turf. This includes the macro-nutrients, along with soil pH. From these basic results, several recommendations can be made to help turf managers improve their playing surfaces.

• pH, P, K, Mg, Ca and soil textural class

Product Code

IG020901

Particle Size Analysis

A test to help determine the sizes of different soil components, including clay, silt and sand. This test can be used to help recommend top dressings and improve soil management.

- Particle size analysis
- Includes organic matter and textural classification

Product Code

Comprehensive Soil Analysis

Comprising all of the tests from the basic analysis, along with testing for multiple micro-nutrients, sulphates and more, the comprehensive analysis provides accurate results on almost all limiting factors to quality turf. These results allow highly accurate and detailed recommendations to be made to help turf managers improve their playing surfaces.

- pH, P, K, Mg, Ca and soil textural class
- Available Na, Cu, Zn, Mn, Fe, Sulphate, Conductivity, Exchangeable Cations with CEC, Organic matter

Product Code

IG020902



Organic Matter Analysis

Organic Matter Testing (4 depths)

Organic matter is important for soils, but too much in the wrong place can cause problems such as disease outbreak and too much water retention. The organic matter test at different 4 depths helps determine the correct balance for your sports turf area and can help to find a solution.

- Organic matter content of soils or rootzones from intact cores
- Tested at 4 depths (0-20mm, 20-40mm, 40-60mm and 60-
- Tested by loss on ignition

Product Code

Organic Matter Testing

Organic matter is important for soils, but too much in the wrong place can cause problems such as disease outbreak and too much water retention. The organic matter test determines the correct balance for your sports turf area and can help to find a solution to any problems.

- Organic matter content of soils or rootzones
- Tested by loss on ignition

Product Code

Basic Water Testing

This basic water test helps identify the main limiting factors of irrigation water. Interpretation of the results can help to recommend which suitable fertilisers and wetting agents to use to get the greatest effect.

- Basic suitability for use in irrigation
- pH, alkalinity and conductivity

Product Code

Comprehensive Water Testing

The more comprehensive test can help to identify a range of nutrients present in irrigation water. In turn, recommendations can be made to help eradicate application problems as well as other turf issues arising from poorer quality irrigation water.

- Suitability for use in irrigation
- pH, alkalinity and conductivity
- Bicarbonate, sodium, calcium and sulphate

Product Code



Training

Continuing professional development is important to Indigrow. As a result, Indigrow are able to help BASIS and/or FACTS registered customers gain additional accreditation points. Unfortunately, Indigrow cannot offer start-from-scratch training courses for BASIS or FACTS at this time.

BASIS and **FACTS**

BASIS is an independent organisation set up at the suggestion of the UK Government in 1978 to establish and assess standards in the pesticide industry relating to storage, transport and competence of staff.

FACTS is independent and non-statutory. It is recognised by the Fertiliser Industry, Defra and the Environment Agency as a successful means of setting standards, training and accrediting the continuing professional development (CPD) of those providing nutrient management advice.



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NPK Nutrient Input Guide

It is important to know how much actual nutrient is being applied when planning accurate turf fertiliser input. Detailed below are the calculations, with examples, for granular, soluble and liquid fertilisers.

Granular Fertilisers

To calculate the kg of nutrient applied per hectare:

Application rate in g per m² x % nutrient content

10

Example

An application of Impact 6-5-18 Fine Turf Fertiliser applied at 25 g per m²

 $25 \times 6 \div 10 = 15 \text{ kg/ha Nitrogen (N)}$

 $25 \times 5 \div 10 = 12.5 \text{ kg/ha Phosphate } (P_2O_5)$

 $25 \times 18 \div 10 = 45 \text{ kg/ha Potash (K₂O)}$

Soluble Fertilisers

To calculate the kg of nutrient applied per hectare:

Application rate in kg per ha. x % nutrient content

100

Example

An application of Fusion Soluble 20-7-20 applied at 10 kg per ha.

 $10 \times 20 \div 100 = 2 \text{ kg/ha Nitrogen (N)}$ $10 \times 7 \div 100 = 0.7 \text{ kg/ha Phosphate } (P_2O_5)$

 $10 \times 20 \div 100 = 2 \text{ kg/ha Potash (K}_2\text{O})$

Liquid Fertilisers

Historically, to calculate the amount of nutrient applied by a liquid it was necessary to know the specific gravity. Now all Indigrow liquids are labelled with the nutrient content by volume so it becomes just a straight forward multiplication, the same as for soluble fertilisers

To calculate the kg of nutrient applied per hectare:

Application rate in It per ha. x % w/v nutrient

100

Example

An application of Fusion BioGreen 18-9-9 applied at 40 litres per ha.

 $40 \times 18 \div 100 = 7.2 \text{ kg/ha Nitrogen (N)}$ $40 \times 9 \div 100 = 3.6 \text{ kg/ha Phosphate } (P_2O_5)$ $40 \times 9 \div 100 = 3.6 \text{ kg/ha Potash (K₂O)}$

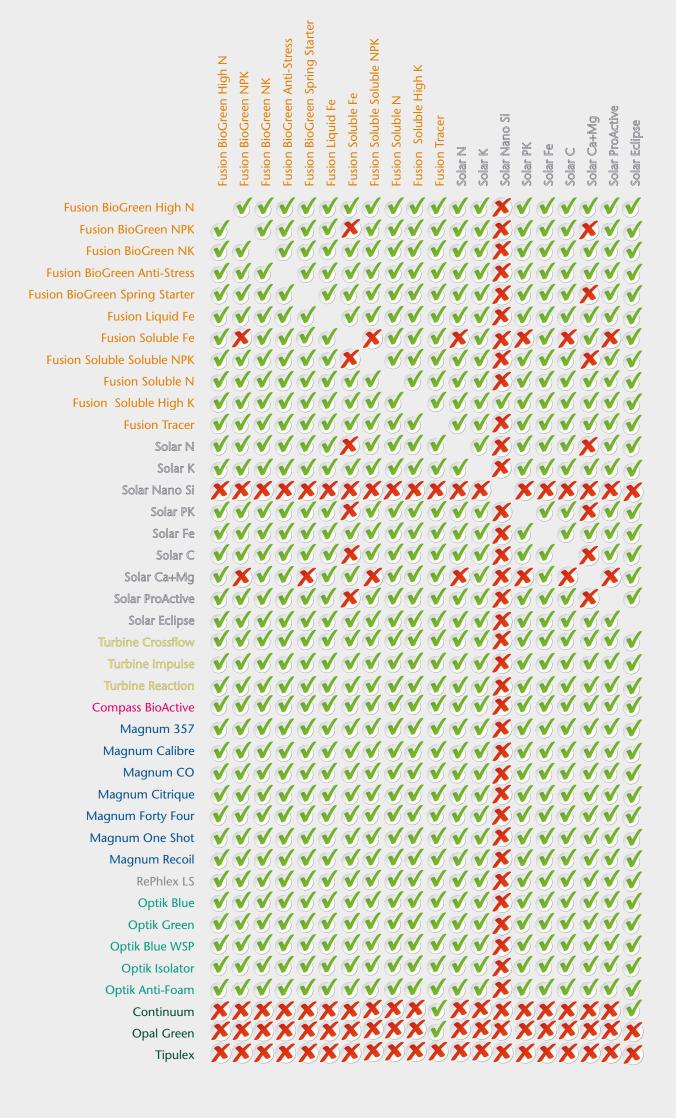
Conversion Factors

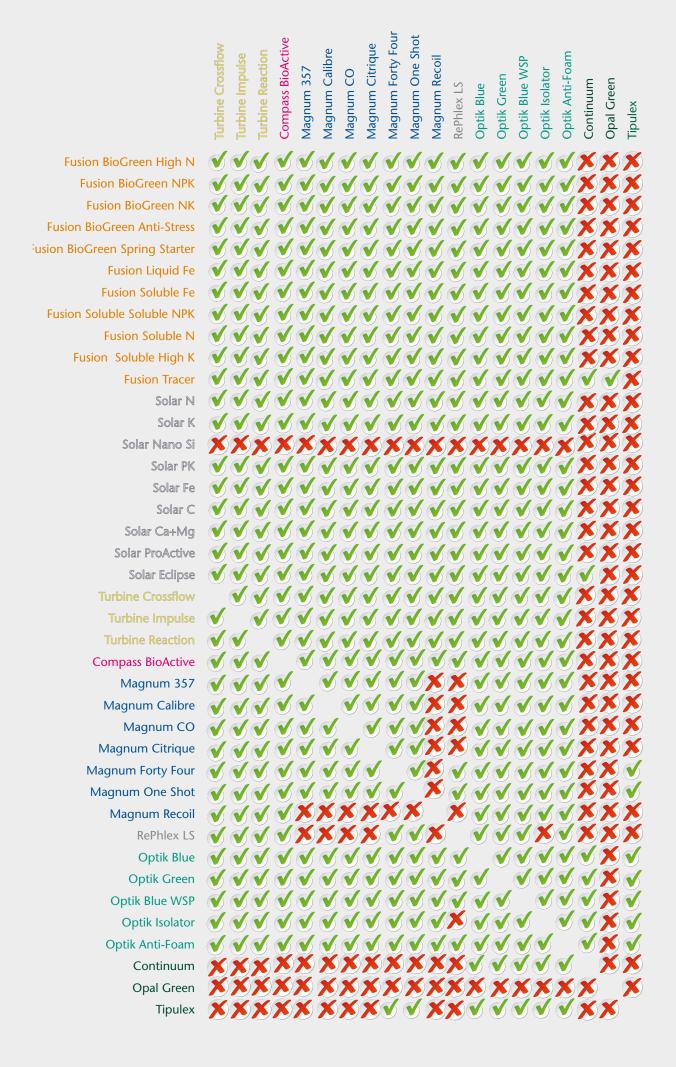
Different countries adopt different ways of expressing nutrients - either the oxide form (e.g. P2Os) or elemental (e.g. P)

All Indigrow products carry dual labelling

 P_2O_5 convert to P = x 0.43 K_2O convert to K = x 0.83CaO convert to Ca = x 0.72MgO convert to Mg = \times 0.6 SO_3 convert to $S = x \ 0.4$

P convert to $P_2O_5 = x 2.29$ K convert to $K_2O = x 1.2$ Ca convert to CaO = x 1.4Mg convert to MgO = x 1.6S convert to $SO_3 = x \ 2.5$





Fertiliser Specifications

Web: www.indigrow.com

								(~T)					_	_	
Product							d Nutrients								
	Iotal N	Ureic N	Methylene Urea N	Coated Urea N	Ammonia N	Nitrate N	Organic N	P ₂ O ₅	Total P	Tofal K₂O	Total K	MgO	Mg	CaO	Ca
Impact	11	IN	UIEG IN	UIEU IN	IN	14	14	1 ₂ O ₅		K ₂ O	K				
Accelerate 14-0-12	14.0				14.0					12.0	10.0				
Vitalize 16-5-16	16.0	8.5			7.5			5.0	2.15		11.62	2.0	1.6		
Enhance 37% CaO	10.0	0.5			7.5			5.0	2.13	10.0	11.02	2.0	1.0	37.0	26.4
All Round 6-5-18	6.0	4.9			1.1			5.0	2.15	18.0	15.0	2.0	1.6	37.0	20.4
Perk 4-0-14	4.0	2.0			2.0			3.0	2.13	14.0	_	2.0	1.0		
High K 0-0-50	4.0	2.0			2.0					50.0					
Start 22-3-10	22.0				19.0	3.0		3.3	1.42	10.1	8.38				
SRF 19-0-19	19.0	3.2	13.9		17.0	3.0		3.3	1.42	19.0					
SRF 12-0-24	12.0	2.0	9.0		1.7					24.0					
SRF 10-20-10	10.0	2.0	5.5		4.5			20.0	8.6	10.0		2.0	1.6		
CGF 25-5-10	25.0	13.1	5.5	10.0	1.9			5.0		10.0					
CGF 25-5-10 CGF 16-5-26	16.0	7.0		6.4	2.6			5.0			21.58				
CGF 16-5-26	15.0	9.9		3.0	2.0			5.0		15.0		2.0	1.0	12.6	9.0
CGF 13-3-13		8.4		15.6	2.0			5.0		8.0		2.0	1.6	12.0	7.0
	26.0 30.0	1.7		28.3	2.0			8.0		8.0		2.0	1.0		
CGF 30-8-8	30.0	1./		20.3				0.0	3.44	0.0	6.6				
Impact Organia															
Impact Organic	1.4.0		0.0		0.4		0.5	0.0	0.04	0.0	1.11	0.5	0.0		
14-2-8	14.0	6.0	2.9		2.6	0.7	2.5	2.0		8.0					
6-3-18	6.0	1.98			0.6	0.6	2.82	3.0		18.0		3.0	1.8		
5-6-4	5.0						5.0	6.0		4.0					
Universal Liquid	2.0						2.0	2.0	0.86	2.0	1.66				
-															
Turbine	10.0		5.0		0.0		4.0			4.0	2.0			0.5	4.0
12-0-4	12.0		5.2		2.0		4.8			4.0	3.2			9.5	6.8
10-0-0	10.0						10.0				5.0				
8-0-6	8.0	1.4			0.7	0.7	8.0			6.0			_		
Crossflow	4.0	1.4			0.7	0.7	1.2			2.0	0.86	0.5			
Impulse	2.0	2.0										0.5	0.3		
Freetra															
Fusion	00.0	140			7.0	7.0									
High N 28-0-0	28.0				7.0	7.0		0.0	2.07	0.0	7.47				
NPK 18-9-9	18.0				2.6			9.0	3.87	9.0					<u> </u>
NK 15-0-12	15.0									12.0					
Anti-Stress 8-0-12	8.0 15.0				15.0					12.0	9.96				
Spring Starter 15-0-0	15.0				15.0										<u> </u>
Liquid Fe													<u> </u>		
Soluble Fe	20.0	07.0			1.0	0.0		F 0	0.15	10.0	0.2				l
Soluble NPK	32.0	27.0			1.9	2.9		5.0	2.15	10.0	8.3				
Soluble N	46.0	46.0				10.0				47.0	20.0				<u> </u>
Soluble High K	13.0					13.0				46.0	38.2		20		
Granular												5.0	3.0		
Tracer															
C - I															
Solar	10.20	10.10			1.0			2.04	1.20	2.04	0.70				
N K	19.32	18.12			1.2			3.24	1.39	3.24			_		
										10.0	8.3				
Nano Si	4.0				4.0			40.0	10.50	10.0	15.04				
PK	4.2				4.2			43.2	18.58		15.94				
Fe	11.0	11.0						7.0	0.14	5.0					
C	11.0	11.0						7.3	3.14	7.3	6.06			0.0	
Ca+Mg								10.0	10.50	10.0	150	4.0	3.2	9.0	6.4
ProActive	4.2				4.2			43.2	18.58	19.2	15.94				
Eclipse															
Compass															
Granular 4-0-0	4.0											2.0	1.6	30.0	21.4
Composted Seaweed	2.0						2.0	2.0	1.3	2.0	1.66				

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Fertiliser Specifications (cont.)

Product					ed Nut	rients	(%)					Und	decla	ired N	lutrien	ts (pr	om)		
1100001	SO ₃	S	Fe	В	Cu	Mn	Zn	Мо	SiO	SO ₃	S	CaO	Ca	В	Cu	Fe	Mn	Zn	Мо
Impact	3	Ŭ	10		00	74.11		1110	0102	3	Ü	040	OG		00	. 0	7 * * * *	211	1110
Accelerate 14-0-12										45.0	18.0				10	200	80		
Vitalize 16-5-16										27.9	11.2				10	200	80		
Enhance 37% CaO	55.0	22.0																	
All Round 6-5-18										16.8	6.7								
Perk 4-0-14			10.0			1.0				20.0	8.0				10	200	80		
High K 0-0-50	45.0	18.0																	
Start 22-3-10	_	8.66												100	300		1,000	2,000	
SRF 19-0-19										21.5	8.6				10	200	80		
SRF 12-0-24										28.8	11.5				10	200	80		
SRF 10-20-10										30.8	12.3								
CGF 25-5-10										9.0	3.6			24		144	60	56	
CGF 16-5-26										23.4	9.4			24		144	60	56	
CGF 15-5-15	12.4	5.0																	
CGF 26-5-8										3.75	1.5			24		144	60	56	
CGF 30-8-8														24		144	60	56	
Impact Organic																			
14-2-8			1.0																
6-3-18																			
5-6-4																			
Universal Liquid														45	85	195	45	30	1.5
Turbine																			
12-0-4	23.7	9.5	4.0			0.3													
10-0-0																			
8-0-6	4.5	1.8																	
Crossflow	2.5	1.0	0.5			0.25													
Impulse				0.15	0.05	0.1	0.5												
Fusion														4.5	0.5	1.45	4.5	0.0	1.5
High N 28-0-0														45	85	_	45		-
NPK 18-9-9			l											45	85		45	30	
NK 15-0-12														45	85		45	30	
Anti-Stress 8-0-12														45		165	45		
Spring Starter 15-0-0	82.5	33.0	_											45	85	165	45	30	1.5
Liquid Fe			6.5							00.4	11.5								
Soluble Fe			20.0							28.6	11.5			4.5	0.5	3.45		00	1.5
Soluble NPK														45	85	_	45		1.5
Soluble N														45	85	-	45	30	1.5
Soluble High K			00.0		0.45					10.75				45	85	165	45	30	1.5
Granular -			20.0	1.04	0.45	8.0		0.15		13.75	5.5	9.0	6.4						
Tracer			8.4	1.06	0.23	1.81	1.16	0.15											
Color																			
Solar			1.0											4.5	0.5	1/5	4.5	20	1.5
N			1.0											45			45	30 30	_
K Nana Si			 						10 E					45	85	165	45	30	1.5
Nano Si PK			0.4						10.5					45	0.5	165	45	30	1.5
														45	85 85	163	45	30	
Fe C			4.6 0.2											45 45	85	165	45 45	30	
Ca+Mg			0.2											45 45	85 85		45 45	30	_
ProActive														45	გე	100	45	30	1.5
	8.94	3.6				15.0													-
Eclipse	0.74	3.6				15.0													
Compass																			
Compass Granular 4.0.0														207	12 5		432	12.5	
Granular 4-0-0														306	13.5		432	13.5	
Composted Seaweed																			

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Indigrow Imapct 25 Spreader Settings

Recommended spreader settings are given for a walking speed of approximately 5 km/hour.

Given spreader settings are recommendations only. Exact rates, using the settings given in this table, can not be guaranteed, as rates are dependent on the spreader itself and the accuracy of the person operating it.

Calibrate the spreader at regular intervals.



Impact Rotary S _I	oreaders:	Impac	t 25			pass appli full label rati	cation = Fu ng	ll rate
Product Name	Effective			·	J			
	Width		Amount	of product (g/m²) appli	ed after one		
		10	15	20	25	30	35	40
Impact								
Accelerate 14-0-12	1.8m	12.00	13.00	13.50	13.75	14.00	14.50	15.0
Vitalize 16-5-16	1.8m	12.00	12.50	13.00	13.50	14.00	14.50	15.0
Enhance 37% CaO	1.8m	11.50	12.00	12.50	13.00	13.50	14.00	14.5
All Round 6-5-18	1.8m	12.00	12.50	13.00	13.50	14.00	14.50	15.0
Perk 4-0-14	1.8m	12.00	12.50	13.00	13.50	14.00	14.50	15.0
High K 0-0-50	1.8m	10.00	11.00	-	-	-	-	-
Start	1.8m	12.00	12.50	13.00	13.50	14.00	14.50	15.0
SRF 19-0-19	1.8m	12.50	13.00	13.50	13.75	14.00	14.50	15.0
SRF 12-0-24	1.8m	12.50	13.00	13.50	13.75	14.00	14.50	15.0
SRF 10-20-10	1.8m	12.00	12.50	13.00	13.50	14.00	14.50	15.0
CGF 25-5-10	1.8m	-	-	10.00	11.00	12.00	13.00	14.0
CGF 16-5-26	1.8m	-	-	10.00	11.00	12.00	13.00	14.0
CGF 15-5-15	2.9m	-	-	16.50	17.50	18.50	19.00	19.5
CGF 26-5-8	1.8m	-	-	10.00	11.00	12.00	13.00	14.0
CGF 30-8-8	2.9m	-	-	16.50	17.50	18.50	19.00	19.5
ZeoZone	1.8m	12.50	13.00	13.50	13.75	14.00	14.50	15.0
Impact Organic								
14-2-8 fine	1.8m	11.50	12.00	12.50	13.00	13.50	14.00	14.5
14-2-8 medium	1.8m	-	-	13.50	14.50	15.50	16.00	16.5
6-3-18 fine	1.8m	11.50	12.00	12.50	13.00	13.50	14.00	14.5
6-3-18 medium	1.8m	-	-	13.50	14.50	15.50	16.00	16.5
5-6-4 medium	1.8m	-	-	13.50	14.50	15.50	16.00	16.5
Turbine								
12-0-4	1.8m	12.50	13.00	13.50	13.75	14.00	14.50	15.0
10-0-0	1.8m	12.50	13.00	13.50	13.75	14.00	14.50	15.0
8-0-6	1.8m	12.50	13.00	13.50	13.75	14.00	14.50	15.0
Fusion								
Granular	1.8m	11.50	12.00	12.50	13.00	13.50	14.00	14.5
Compass								
Granular	1.8m	12.00	12.50	13.00	13.50	14.00	14.50	15.0
Composted Seaweed	1.8m	11.50	12.00	12.50	13.00	13.50	14.00	14.5
Magnum								
Granular	1.8m	12.50	13.00	13.50	13.75	14.00	14.50	15.0

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Indigrow Imapct 45 Spreader Settings

Recommended spreader settings are given for a walking speed of approximately 5 km/hour.

Given spreader settings are recommendations only. Exact rates, using the settings given in this table, can not be guaranteed, as rates are dependent on the spreader itself and the accuracy of the person operating it.

Calibrate the spreader at regular intervals.



mpact Rotary S _ا	oreaders:	Impac	t 45	Settings for single pass application = Full rate									
Product Name	Effective Width			setting at fool			run:						
Impact		10	15	20	25	30	35	40					
Accelerate 14-0-12	1.8m	11.00	12.00	12.50	13.00	13.50	14.00	14.50					
Vitalize 16-5-16	1.8m	11.00	12.00	12.50	13.00	13.50	14.00	14.50					
Enhance 37% CaO	1.8m	11.50	12.50	13.50	14.50	15.50	16.50	17.00					
All Round 6-5-18	1.8m	12.00	12.50	13.00	13.50	14.00	14.50	15.00					
Perk 4-0-14	1.8m	11.00	12.00	12.50	13.00	13.50	14.00	14.50					
High K 0-0-50	1.8m	9.00	11.00	-	-	-	-	-					
Start	1.8m	11.00	12.00	12.50	13.00	13.50	14.00	14.50					
SRF 19-0-19	1.8m	11.00	12.00	13.00	14.00	15.00	15.50	16.00					
SRF 12-0-24	1.8m	11.00	12.00	13.00	14.00	15.00	15.50	16.00					
SRF 10-20-10	1.8m	11.00	12.00	12.50	13.00	13.50	14.00	14.50					
CGF 25-5-10	1.8m	-	-	3.00	5.00	6.50	7.00	8.00					
CGF 16-5-26	1.8m	_	_	3.00	5.00	6.50	7.00	8.00					
CGF 15-5-15	2.9m	_	_	16.00	17.00	17.50	18.00	18.50					
CGF 26-5-8	1.8m	_	_	3.00	5.00	6.50	7.00	8.00					
CGF 30-8-8	2.9m	_	_	16.00	17.00	17.50	18.00	18.50					
ZeoZone	1.8m	11.00	12.00	13.00	14.00	15.00	15.50	16.00					
Impact Organic													
14-2-8 fine	1.8m	11.50	12.50	13.50	14.50	15.50	16.50	17.00					
14-2-8 medium	1.8m	-	-	14.50	15.50	16.50	17.00	17.50					
6-3-18 fine	1.8m	11.50	12.50	13.50	14.50	15.50	16.50	17.00					
6-3-18 medium	1.8m	-	-	14.50	15.50	16.50	17.00	17.50					
5-6-4 medium	1.8m	-	-	14.50	15.50	16.50	17.00	17.50					
Turbine													
12-0-4	1.8m	11.00	12.00	13.00	14.00	15.00	15.50	16.00					
10-0-0	1.8m	11.00	12.00	13.00	14.00	15.00	15.50	16.00					
8-0-6	1.8m	11.00	12.00	13.00	14.00	15.00	15.50	16.00					
Fusion													
Granular	1.8m	11.50	12.50	13.50	14.50	15.50	16.50	17.00					
Compass													
Granular	1.8m	11.00	12.00	12.50	13.00	13.50	14.00	14.50					
Composted Seaweed	1.8m	11.50	12.50	13.50	14.50	15.50	16.50	17.00					
Magnum													
Granular	1.8m	11.00	12.00	13.00	14.00	15.00	15.50	16.00					



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