



composition terms believe in sustainable integrated turf management by focusing on modern fertilisation technology for consistent growth and optimal support of the plants own physiological processes. All of which promote regeneration, stress tolerance and root development while providing optimum turf quality. We focus on:

Spring growth

(Spring)



Regeneration

(Summer)

Resistance

(Autumn)





Granular























Soluble & Liquids

N	Novatec [®]	35
*****	Solub	





Wetting agent



















Floranid® Twin Eagle.

Double N technology with efficient sustainable nutrient supply for fine turf.





Floranid® Twin Eagle Master

19-5-10 (+2MgO)



Floranid*Twin Eagle Master delivers nitrogen without excessive growth and clippings. The **ideal** analysis for the first application of the season.

Analysis	19	5	10	2	7	0.1	0.7	0.01	0.01
g/m²	N	Р	К	MgO	s	Mn	Fe	Zn	Cu
15	28.5	7.5	15	3	10.5	0.15	1.05	0.015	0.015
20	38	10	20	4	14	0.2	1.4	0.02	0.02
25	47.5	12.5	25	5	17.5	0.25	1.75	0.025	0.025
30	57	15	30	6	21	0.3	2.1	0.03	0.03
35	66.5	17.5	35	7	24.5	0.35	2.45	0.035	0.035
40	76	20	40	8	28	0.4	2.8	0.04	0.04

Floranid® Twin Eagle NK

17-0-16 (+2MgO)



The ideal **NK** ratio of almost **1**: **1** promotes **healthy**, vigorous **growth** and provides **resistance** to **heat**, **drought** and **cold** conditions.

Analysis	17	0	16	2	8	0.1	0.5	0.01	0.01
g/m²	N	Р	K	MgO	s	Mn	Fe	Zn	Cu
15	25.5	0	24	3	12	0.15	0.75	0.015	0.015
20	34	0	32	4	16	0.2	1	0.02	0.02
25	42.5	0	40	5	20	0.25	1.25	0.025	0.025
30	51	0	48	6	24	0.3	1.5	0.03	0.03
35	59.5	0	56	7	28	0.35	1.75	0.035	0.035
40	68	0	64	8	32	0.4	2	0.04	0.04

Floranid® Twin Eagle K

12-0-24 (+3MgO)



The turf-specific K ratio of 1: 2 ensures resistance to frost and makes **Floranid***Twin **Eagle K** an ideal autumn fertiliser without excessive growth and clippings.

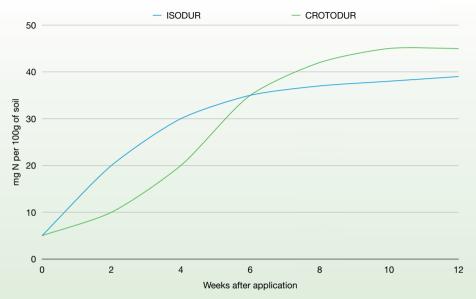
Analysis								0.01	
				MgO				Zn	
15	18	0	36	4.5	12	0.15	1.5	0.015	0.015
	24	0	48	6	16	0.2	2	0.02	0.02
25	30	0	60	7.5	20	0.25	2.5	0.025	0.025
30	36	0	72	9	24	0.3	3	0.03	0.03
35	42	0	84	10.5	28	0.35	3.5	0.035	0.035
40	48	0	96	12	32	0.4	4	0.04	0.04



Floranid® Twin Eagle

Characteristics

- Granule size 0.5-1.4 mm
- Cutting height All turf
- Longevity 3+ months
- Application rate 15-40 g/m²
- Bag Coverage 625-1,666 m²
- Bags/ha 6-16
- Areas of use Golf greens / Fine turf
- Turf response 3-4 days
- Granule dispersal 1-3 days



Spreader settings (AccuPro / SR 2000)

Rate	Cone	Width Single pass (full rate)		Double pass (half rate)
15	6	4	L 1/2	
20	6	4	M 1/2	K1/2
25	6	4	N	L
30	6	4	0	L 1/2
35	6	4	P	M
40	6	4	Q 1/2	M 1/2





Floranid® Twin.

Double N technology with efficient sustainable nutrient supply for sports turf





Floranid^{® Twin} Turf BS

20-5-8 (+2MgO)



The added *Bacillus subtilis*, selection E4-CDX® promotes vital root growth, increase the overall resistance of turf and disorientates nematodes.

Analysis	20	5		2	7	0.1	0.85	0.01	0.01
g/m²	N	Р	к	MgO	S	Mn	Fe	Zn	Cu
15	30	7.5	12	3	10.5	0.15	1.275	0.015	0.015
20	40	10	16	4	14	0.2	1.7	0.02	0.02
25	50	12.5	20	5	17.5	0.25	2.125	0.025	0.025
30	60	15	24	6	21	0.3	2.55	0.03	0.03
35	70	17.5	28	7	24.5	0.35	2.975	0.035	0.035

Floranid® Twin NK

14-0-19 (+3MgO)



Floranid *Twin NK is a finely granulated phosphate-free long-term fertiliser with a reliable slow nitrogen release over several months.

Analysis	14	0	19	3	11	0.1	0.5	0.01	0.01
g/m²	N	Р	К	MgO	S	Mn	Fe	Zn	Cu
15	21	0	28.5	4.5	16.5	0.15	0.75	0.015	0.015
20	28	0	38	6	22	0.2	1	0.02	0.02
25	35	0	47.5	7.5	27.5	0.25	1.25	0.025	0.025
30	42	0	57	9	33	0.3	1.5	0.03	0.03
35	49	0	66.5	10.5	38.5	0.35	1.75	0.035	0.035

Floranid® Twin Turf

20-5-8 (+2MgO)



Floranid *Twin Turf has an ideal nutrient ratio for high-quality turf that contains double N technology made of ISODUR* and CROTODUR*.

Analysis		5		2		0.1	0.85	0.01	
g/m²	N	Р	К	MgO	s	Mn	Fe	Zn	Cu
15	30	7.5	12	3	10.5	0.15	1.275	0.015	0.015
20	40	10	16	4	14	0.2	1.7	0.02	0.02
25	50	12.5	20	5	17.5	0.25	2.125	0.025	0.025
30	60	15	24	6	21	0.3	2.55	0.03	0.03
35	70	17.5	28	7	24.5	0.35	2.975	0.035	0.035



Floranid^{® Twin}

10-5-20 (+4MgO)



Floranid*Twin Club is a slow-release fertiliser with a very high potash and magnesium content for the targeted nutrient supply.

Analysis		5	20	4		0.1		0.01	0.01
g/m²	N	Р	К	MgO	s	Mn	Fe	Zn	Cu
15	15	7.5	30	6	13.5	0.15	1.5	0.015	0.015
20	20	10	40	8	18	0.2	2	0.02	0.02
25	25	12.5	50	10	22.5	0.25	2.5	0.025	0.025
30	30	15	60	12	27	0.3	3	0.03	0.03
35	35	17.5	70	14	31.5	0.35	3.5	0.035	0.035

Floranid® Twin Permanent

16-7-15 (+2MgO)



Floranid *Twin Permanent is a universal long-term fertiliser that promotes vital root growth and increases the resistance of fine turf species.

Analysis		7		2				0.01	
g/m²		Р		MgO	s	Mn	Fe	Zn	Cu
15	24	10.5	22.5	3	12	0.15	0.75	0.015	0.015
20	32	14	30	4	16	0.2	1	0.02	0.02
25	40	17.5	37.5	5	20	0.25	1.25	0.025	0.025
30	48	21	45	6	24	0.3	1.5	0.03	0.03
35	56	24.5	52.5	7	28	0.35	1.75	0.035	0.035

Characteristics

- Granule size 0.7-2.8 mm
- Cutting height > 6 mm
- Longevity 3+ months
- Application rate 20-40 g/m²
- Bag coverage 714-1,666 m²
- Bags/ha 8-16
- Area of use Tees / Surrounds / Fairways / Sports fields
- Turf response 3-4 days
- Granule dispersal 1-3 days

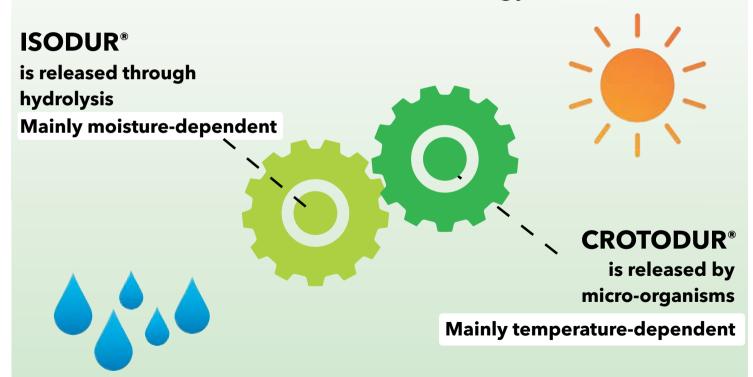
Spreader settings (AccuPro / SR 2000)

Rate	Cone	Width	Single pass (full rate)	Double pass (half rate)
20	5	4	M	J 1/2
25	5	4	N	K
30	5	4	N 1/2	L
35	5	4	o	L 1/2
40	5	4	Р	М



Floranid® Twin

Double **N** technology





ISODUR® The role of ISODUR® & CROTODUR® CROTODUR® in the plant

Floranid*Twin fertilisers have a positive impact on plant physiological parameters such as the build-up of organic matter, photosynthesis activity, and the storage of reserves.

Homogeneous distribution of nutrients with improved **phosphate** and **magnesium** absorption enhancing even, steady growth. Extensive laboratory studies and field tests have shown that ISODUR* and CROTODUR* promote root growth. Stable root architecture is crucial for the optimal functionality of sport turf.

Metabolites -

organic products that convert and break down compounds are also formed, which have a positive effect on soil activity at microbiological level.

Floranid Twin has been proven to stimulate microorganisms in the soil, thus supporting important interactions in the rhizosphere. An active soil life promotes vital growth and reduces a plant's susceptibility to diseases.





Fertilis Speed®

18-5-8 (+3MgO)



Fertilis Speed® is an NPK complex fertiliser containing **ISODUR®** to promote growth and a **quick green-up** from Spring through to Summer.

Analysis	18	5	8	3	12	0.020	0.400	0.050	0.020
g/m²	N	Р		MgO		В	Fe	Mn	Zn
15	27	7.5	12	4.5	18	0.03	0.6	0.075	0.03
20	36	10	16	6	24	0.04	0.8	0.1	0.04
25	45	12.5	20	7.5	30	0.05	1	0.125	0.05
30	54	15	24	9	36	0.06	1.2	0.15	0.06
35	63	17.5	28	10.5	42	0.07	1.4	0.175	0.07

Fertilis Swing® NK

8-0-24 (+4MgO)



Fertilis Swing® is an NK complex fertiliser containing **ISODUR**® to promote growth and a **quick green-up** from Summer through to Autumn.

Analysis	8	0	24	5.5	36	0.020	1	0.1	0.020
g/m²	N	Р		MgO		В	Fe	Mn	Zn
15	12	0	36	8.25	54	0.03	1.5	0.15	0.03
20	16	0	48	11	72	0.04	2	0.2	0.04
25	20	0	60	13.75	90	0.05	2.5	0.25	0.05
30	24	0	72	16.5	108	0.06	3	0.3	0.06
35	28	0	84	19.25	126	0.07	3.5	0.35	0.07

Fertilis® also contains Bacillus subtilis, selection E4-CDX® to compete with harmful pathogens and protect the roots.
Fertilis® provides an immediate effect, with each granule containing macro and trace elements that dissolves quickly after irrigation.

Characteristics

- Granule size 0.4-1.4 mm
- Cutting height All turf
- Longevity 4-6 weeks
- Application rate 15-35 g/m²
- Bag Coverage 714-1,666 m²
- Bags/ha 6-14
- Area of use Greens / Fine turf
- Turf response 1-3 days
- Granule dispersal 1-3 days

Spreader settings (AccuPro / SR 2000)

Rate	Cone	Width	Single pass (full rate)	Double pass (half rate)
15	6	3.7	K 1/2	I 1/2
20	6	3.7	L 1/2	J 1/2
25	6	3.7	М	K
30	6	3.7	M 1/2	K 1/2
35	6	3.7	N 1/2	L







The role of Fertilis® in the plant & soil

Once watered in, **Bacillus subtilis**, selection **E4-CDX**® operates in the **rhizosphere**. Symbiosis with **fine root hairs** result in coverage of the entire root.

Once established, it physically protects the roots and inhibits the advance of soil borne fungi such as fusarium.

Bacillus subtilis, selection

E4-CDX* is a unique and effective strain of rhizosphere bacterium.

Bacillus subtilis competes with harmful pathogens for space around the roots of the grass plant.

This creates a **live barrier protecting**the whole root that
disease can't
penetrate. Therefore
disease has no
opportunities to set
infection.

Tests also show that **Bacillus subtilis** gives off a chemical that disorientates **nematodes**, so they can no longer find the root.







Enforce® Basic

15-5-8 (+5MgO)



Each granule in **Enforce® Basic** contains all nutrients and thus guarantees a very **exact distribution** of the **main** and **secondary trace nutrients.**

Analysis	15	5	8			0.3
g/m²	N	Р	к	MgO	s	Fe
15	22.5	7.5	12	7.5	10.5	0.45
20	30	10	16	10	14	0.6
25	37.5	12.5	20	12.5	17.5	0.75
30	45	15	24	15	21	0.9
35	52.5	17.5	28	17.5	24.5	1.05

Enforce® High-K

8-6-18 (+4MgO)



Enforce® High-K is a NPK complex fertiliser with **ISODUR®** and **methylene urea** slow-release nitrogen, **potassium sulphate**, **magnesium and iron**.

Analysis	8	6	18	4	11	0.5
g/m²	N	Р	к	MgO	s	Fe
15	12	9	27	6	16.5	0.75
20	16	12	36	8	22	1
25	20	15	45	10	27.5	1.25
30	24	18	54	12	33	1.5
35	28	21	63	14	38.5	1.75



Enforce®

Characteristics

- Granule size 0.5-3 mm
- Cutting height > 6 mm
- Longevity 2 months
- Application rate 15-40 g/m²
- Bag Coverage 625-1,666 m²
- Bags/ha 6-16
- Areas of use Tees / Surrounds / Fairways / Sports fields / Lawns
- Turf response 3-4 days
- Granule dispersal 1-3 days

ISODUR®

is released through hydrolysis

Mainly moisture-dependent



Spreader settings for Basic & High-K (AccuPro / SR 2000)

Rate	Cone	Width	Single pass (full rate)	Double pass (half rate)
20	6	4	L 1/2	J
25	6	4	M	J 1/2
30	6	4	M 1/2	K
35	6	4	N 1/2	L
40	6	4	O 1/2	L 1/2
45	6	4	P	L 3/4





Enforce* is the only MU / **ISODUR*** fertiliser using fraction 2 MU in the UK Enforce* has been proven to increase sward density with excellent granule dispersal and fine grade granulometry Enforce® fertilisers stimulate **microbial soil** activity and all 3 analyses are highly resistant to Enforce* contains a trace element leaching with a low salt package to support root index development





EasyGreen Mini 21

21-5-10 (+3MgO)



EasyGreen Mini 21 NPK complex fertiliser with emphasis on **nitrogen** for **spring** and **summer** application to **promote growth** and **quick green-up.**

Analysis	21	5	10	3	15	0.020	0.3	0.02
g/m²	N	Р		MgO	s	В	Fe	Zn
15	31.5	7.5	15	4.5	22.5	0.03	0.45	0.03
20	42	10	20	6	30	0.04	0.6	0.04
25	52.5	12.5	25	7.5	37.5	0.05	0.75	0.05
30	63	15	30	9	45	0.06	0.9	0.06
35	73.5	17.5	35	10.5	52.5	0.07	1.05	0.07

EasyGreen Mini 15

15-3-20 (+3MgO)



EasyGreen Mini 15 NPK complex fertiliser with emphasis on both **potassium & nitrogen** to **promote growth, resistance** and **quick green-up.**

Analysis	15					0.020		
g/m²	N	Р		MgO	s	В	Fe	Zn
15	22.5	4.5	30	4.5	34.5	0.03	0.09	0.015
20	30	6	40	6	46	0.04	0.12	0.02
25	37.5	7.5	50	7.5	57.5	0.05	0.15	0.025
30	45	9	60	9	69	0.06	0.18	0.03
35	52.5	10.5	70	10.5	80.5	0.07	0.21	0.035

EasyGreen Mini 12

12-12-17 (+2MgO)



NPK compound fertiliser with emphasis on **potassium** for **autumn** application to **promote frost resistance** and a **better restart in spring**.

Analysis								0.01
g/m²	N	Р	К	MgO	s	В	Fe	Zn
15	18	18	25.5	3	31.5	0.03	0.09	0.015
20	24	24	34	4	42	0.04	0.12	0.02
25	30	30	42.5	5	52.5	0.05	0.15	0.025
30	36	36	51	6	63	0.06	0.18	0.03
35	42	42	59.5	7	73.5	0.07	0.21	0.035





The role of EasyGreen Mini in the plant

Characteristics

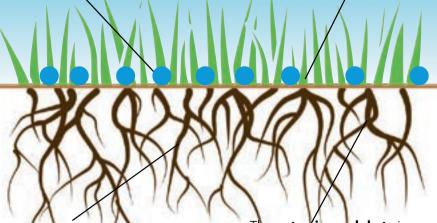
- Granule size 1-2.5 mm
- Cutting height > 6 mm
- Longevity 4 weeks
- Application rate 20-40 g/m²
- Bag Coverage 625-1,250 m²
- Bags/ha 8-16
- Area of use Tees / Surrounds / Fairways / Sports fields / Lawns
- ✓ Turf response 1-2 days
- Granule dispersal 1-3 days

Spreader settings (AccuPro / SR 2000)

Rate	Cone	Width	Single pass (full rate)	Double pass (half rate)
20	6	4.6	M 1/2	K
25	6	4.6	N 1/2	K 1/2
30	6	4.6	O 1/2	L
35	6	4.6	P	M
40	6	4.6	Q	M 1/2

EasyGreen Mini contains all **nutrients** in one granule including vital **micronutrients**.

EasyGreen Mini contains approx **100 granules per 1g** making it **8 times** smaller than other conventional NPK fertilisers.



The nitrate source of N in EasyGreen Mini stimulates growth under cold conditions and reaches plant roots quickly providing an almost instant nutrient supply.

The potassium sulphate in EasyGreen Mini helps alleviate stress caused to turf by promoting root growth and strengthening the regeneration of growth.



Blaukorn fertilisers are available as different NPK formulas with ideal proportions of nutrients depending on crop type an growing stage. The products are low in chloride and highly compatible with plants with an ideal relationship between ammoniacal and nitrate nitrogen, with magnesium being exclusively derived from sulfate and phosphorus mainly from phosphoric acid. Also included in the product are the main trace elements such as iron, boron and zinc in plant-assimilable forms.

Scan me for more information about Blaukorn*



Novatec® Blue all the way through

Granulated complex fertiliser with potassium sulfate (SOP) and nitrification inhibitor DMPP (3,4-dimethylpyrazole phosphate) for basal and complementary dressings in chloridesensitive crops and on salt-affected soils.

DMPP reduces N leaching and increases N efficiency. For a period of 4 to 10 weeks, depending on soil temperature and soil humidity, the transformation of ammonium to nitrate is delayed. N availability is further adapted to the plants' requirements and N efficiency is increased.

Scan me for more information about Novatec*





Basfoliar® Ferro Top SL

also available on page **42**



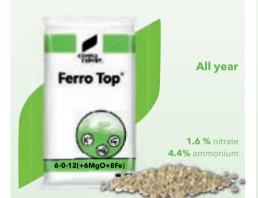
Proven to get turf growing. Even when its cold.

Ferro Top® kick starts the season, protects in the winter.





Ferro Top[®] 6-0-12 (+6MgO+8Fe)



Ferro Top® is an iron speciality fertiliser with high levels of potassium and magnesium as well as manganese to promote quality, resistance and colour. The fine granulation ensures perfect sward penetration.

Analysis	6	0	12	6	18	8	0.01
g/m²		Р	К	MgO	S	Fe	Mn
15	9	0	18	9	27	12	0.015
20	12	0	24	12	36	16	0.02
25	15	0	30	15	45	20	0.025
30	18	0	36	18	54	24	0.03
35	21	0	42	21	63	28	0.035

Ferro Top® ensures quick greening without a flush of growth, blackens moss and protects against future ingress which is particularly important in winter to spring. Ferro Top® is also an ideal option for the early spring treatment to kick-start your turf.



In combination with the **low nitrogen** content, turf forms important **amino acids**, **enzymes** and **proteins**. The result, is **improved chlorophyll formation** and **energy** utilisation. Therefore turf is better **protected** against weather influences and improves the **sward quality** by increased **resistance against wear, fungal diseases, moss, heat and frost.**

Applying Ferro Top® during the crucial growth potential period at the beginning of the year, will ensure your turf is sufficiently supplied with all required nutrients for optimum growth. Deficiency in N, K, Fe, Mg and S can lead to increased disease occurrence, poor quality turf and a much slower start to the season.

Characteristics

- Granule size 0.5-2.5 mm
- Cutting height All turf
- Longevity 4-6 weeks
- Application rate 20-40 g/m²
- Bag Coverage 625-1,250 m²
- Bags/ha 8-16
- Area of use All sports turf
- Turf response 1-2 days
- Granule dispersal 1-3 days

Spreader settings (AccuPro / SR 2000)

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Rate	Cone	Width	Single pass (full rate)	Double pass (half rate)					
20	5	4	М	J 1/2					
25	5	4	N	K					
30	5	4	N 1/2	L					
35	5	4	0	L 1/2					
40	5	4	P	M					





The role of Ferro Top® in the plant & soil

Ferro Top® provides all essential nutrients for increased disease resistance, colour, and blackening of moss which helps your turf become strong and healthy going into winter.

The nitrate content in

Ferro Top* is highly mobile
and will reach plant roots
quickly, providing an
almost instant nutrient
supply. This also makes it
particularly useful in the
winter and early spring
where its ready availability
can stimulate growth
under cold conditions.

Ferro Top® provides the perfect amount of N & K plus Fe, Mg and S which are all required to promote strong healthy turf & photosynthesis.

The essential elements of Ferro
Top* play an important role in
nitrogen and phosphate
metabolism and the reduction of
nitrate to amino acids.





Kali Gazon 0-0-27 (+10MgO+17S)



High potassium sulphate with added magnesium and sulphur make **Kali Gazon THE stress reliever**, improving **turf tolerance** against **drought**, **disease** and **cold temperatures**. **Kali Gazon** uses raw materials extracted from deposits accumulated by the **sea**.

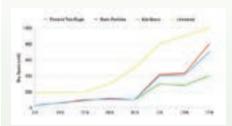
Analysis	0	0	27	10	17
g/m²	N	Р	к	MgO	S
15	0	0	40.5	15	25.5
20	0	0	54	20	34
25	0	0	67.5	25	42.5
30	0	0	81	30	51
35	0	0	94.5	35	59.5

A sufficient supply of potassium **reduces evaporation losses**, so that irrigation can be saved. Magnesium is an essential element of chlorophyll formation and thus promotes the assimilation performance **(energy intake)** of turf. The high sulphur content supports protein and enzyme formation and has a **pH-regulating effect** on the soil.



10 days post Kali Gazon application increased recovery from drought damage compared to control plots

Kali Gazon should be used prior to drought and frost stress to improve the **sward** density by strengthening regeneration growth, promoting root growth, reserve material storage and stocking. Kali Gazon also provides increased resistance against fungal infections such as snow mould.



Applications of Kali Gazon produced less dry spots compared to other applications.

Characteristics

- Granule size 0.5-2.0 mm
- Cutting height All turf
- Longevity 4-6 weeks
- Application rate 15-35 g/m²
- Bag Coverage 714-1,666 m²
- Bags/ha 6 -14
- Area of use All sports turf
- Turf response 3-4 days
- Granule dispersal 1-3 days

Spreader settings (AccuPro / SR 2000)

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Rate	Cone	Width	Single pass (full rate)	Double pass (half rate)	
20	6	4	L	J	
25	6	4	M	J 1/2	
30	6	4	M 1/2	K	
35	6	4	N	K 1/2	
40	6	4	0	L	





The role of Kali Gazon in the plant & soil

Kali Gazon reduces the amount of dry spots on turf surface areas as potassium maintains water balance in the plant, and helps regulate cell water content and plant turgor, maintaining stem strength.

During heat and drought stress, Kali Gazon alleviates stress caused to turf by promoting root growth and strengthening the regeneration of growth.

Kali Gazon reduces leaf damage and increase regeneration by controlling stomatal pore opening and closing during transpiration.

Kali Gazon transports **carbohydrates** and **amino acids** from the leaf to the roots and shoots via the phloem.





- Do you know the nutrient content of your fertiliser?
- Are you getting what you pay for?
- How much filler is in your bag of fertiliser?



What should a bag analysis add up to?



A nutrient FULL bag will have a percentage analysis that adds up to approx 33% - 40%



Any less than 33% there is likely to be fillers.



Sometimes these can be useful like seaweed but amounts are generally too low to have a significant effect

Agrosil[®]. Soil enhancers.

Promotes microbial soil activity, root development and increases stress tolerance against diseases and abiotic factors.









Agrosil® LR

0-20-0+36Si



Agrosil* LR is a granulated silicate colloid for improvement of soils of all kinds.

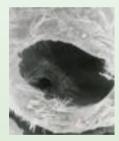
Agrosil* LR is an active electrolyte system consisting of partially dehydrated sodium silicate and phosphate. Agrosil* LR promotes the biological activity of the soil and increases the grass's stress tolerance to biotic and abiotic stress.

Analysis	0	20	0	36
g/m²	N	P	К	Si
70	0	140	0	252
90	0	180	0	324
110	0	220	0	396
130	0	260	0	468
150	0	300	0	540

Agrosil®LR Benefits

- Activates root growth
- Increase the cation exchange capacity
- Creates storage space for water and air into the soil
- Improves capillary water transport
- Keeps phosphate plant-available
- Improves the soil structure
- Reduces salt shocks

Electro microscope image of a **colloid** with huge pore space and the typically **silicate** needle structure.



Agrosil* LR has a **regenerative** effect by strengthening **root growth** of turf grasses in density and in depth; for improving the **colour**, **density** and **resistance** to wear of the turf.

The product is ideally applied during **renovation's** or during the construction phase of **new turf areas.**



Characteristics

- Granule size 0.5-2.0 mm
- Cutting height All turf
- Longevity 6 months
- Application rate 70-140 g/m²
- Bag Coverage 166-357 m²
- Bags/ha 28-60
- Area of use All sports turf
- Turf response Long term
- Granule dispersal Long soil activity

Spreader settings (AccuPro / SR 2000)

Rate	Cone	Width	Single pass (full rate)	70g/ m2	140g/ m2
35	6	4.1	0	X2 passes	X4 passes



Agrosil® Algin

5-3-5+2MqO+4.5S+Fe+Mn

Contains Humic acid, Zeolites, Seaweed & Bacillus sp.



Agrosil* Algin is a granulated organicmineral NPK special fertiliser and soil activator based on **algae**. With beneficial **microorganism Bacillus sp.**, and valuable soil-promoting components humic acids & zeolites.

Analysis	5	3	5	2	4.5	1	0.1
g/m²	N	Р	к	Mgo	S	Fe	Mn
30	15	9	15	6	13.5	3	0.3
40	20	12	20	8	18	4	0.4
50	25	15	25	10	22.5	5	0.5
60	30	18	30	12	27	6	0.6
70	35	21	35	14	31.5	7	0.7

Agrosil®Algin Benefits

- Activation of soil life
- Increase the cation exchange capacity
- Promotion of pore volume
- Improved root development
- Increase water & nutrient efficiency
- Vital grass development



Natural **zeolites** (clinoptiolites) are silicate minerals of volcanic origin with a microporous structure.

Useful microorganisms and humic acids are also present inside **Agrosil* Algin** which supports the rehabilitation and vitalisation through soil therapy of intensively used sports turf areas. **Agrosil* Algin** promotes soil structure and improves water and nutrient retention and the cation exchange capacity. In addition, **Agrosil* Algin** has a positive influence on the microbial soil activity, root development and stress tolerance against diseases and abiotic factors.



Characteristics

- Granule size 1-3 mm
- Cutting height All turf
- Longevity Multi-stage
- Application rate 30-70 g/m²
- Bag Coverage 714-1,666 m²
- Bags/ha 6 -14
- Area of use All sports turf
- Turf response 3-4 days
- Granule dispersal 1-3 days

Spreader settings (AccuPro / SR 2000)

Rate	Cone	Width	Single pass (full rate)
30	6	3.4	0
70	6	3.4	т







The role of Agrosil® in the plant & soil

Agrosil* LR improves soil respiration (microbial biomass), amount of **bacteria** and increase soil **fungi**.

Agrosil* Algin provides regenerative growth increasing photosynthetic capacity ensuring a balanced greening effect.

Agrosil* Algin provides a synergistic effect with the combination of **algae** and **humic acids** improving root growth and promotes strength against stress.

Agrosil* LR increase nutrient
efficiency, water holding capacity
and increase ground cover of turf.





Novatec® Solub.

Next generation water soluble fertiliser technology for superior turf management.

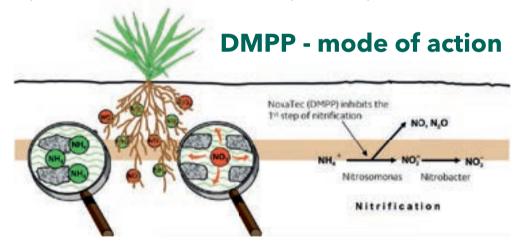


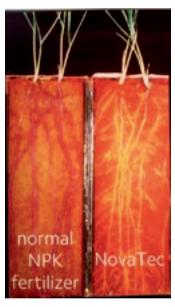


Novatec® DMPP nitrification inhibitor

NovaTec* Solub is an ammonium-stabilised water soluble fertiliser with the nitrification inhibitor **DMPP (3,4-dimethylpyrazol phosphate). DMPP** slows down the nitrification process, i.e., the transformation from NH₄ to NO₃ for several weeks. Nitrogen **efficiency is increased** and Nitrogen **leaching is reduced** therefore, more **environmentally friendly and sustainable.**

Less energy consumption in N-metabolism of the plant, due to partial NH_4 - nutrition. Energy usually required for nitrate reduction are used for other processes of plant metabolism.





NovaTec* Solub increases plant availability of phosphate & micro nutrients due to acidification of the rhizosphere by ammonium uptake instead of nitrate uptake.

NovaTec* Solub results in a more efficient nitrogen use compared to conventional fertilisers. Nitrogen losses through nitrate leaching are minimised and a better adapted plant supply is achieved. **NovaTec* Solub** ammonium is stabilised and the **DMPP** effects only the *Nitrosomonas* soil bacteria involved in the first stage of nitrification. *Nitrobacter* and other **microorganisms** are not affected.



Novatec® Solub 21

21-0-0



25kg Pack size 4-10 weeks longevity **Immediate** turf response 20-120L/ha application rate 400-600 L/ha Water volume 1666-10000m² Pack coverage

NovaTec® Solub 21 is a high nitrogen (N) fertiliser that ensures greater efficiency in the use of nitrogen as well as agronomic advantages.

Analysis	21		o		0.205
kg/ha	N	Р	К	s	DММР
20	4.2	0	0	4.8	0.041
40	8.4	0	0	9.6	0.082
60	12.6	0	0	14.4	0.123
80	16.8	0	0	19.2	1.64
100	21	0	0	24	0.205

Novatec® Solub 21 Fe

21-0-0 (+0.5Fe)



25kg Pack size 4-10 weeks longevity **Immediate** turf response 20-1201/ha application rate 400-600 L/ha Water volume 1666-10000m² Pack coverage

21 % ammonium

NovaTec® Solub 21 is a high nitrogen (N) fertiliser and chelated iron (Fe) that ensures greater efficiency in the use of nitrogen as well as agronomic advantages.

Analysis	21	0	0	60	0.5	0.205
kg/ha	N	Р	к	s	Fe	DMMP
20	4.2	0	0	12	0.1	0.041
40	8.4	0	0	24	0.2	0.082
60	12.6	0	0	36	0.3	0.123
80	16.8	0	0	48	0.4	1.64
100	21	0	0	60	0.5	0.205

Novatec® Solub 21 BS

21-0-0 (Bacillus amyloliquefaciens, Bacillus atrophaeus, Pseudomonas fluorescens, Pseudomonas putida)



25ka Pack size 4-10 weeks longevity **Immediate** turf response 20-120L/ha application rate 400-600 L/ha Water volume 1666-10000m² Pack coverage

21 % ammonium

Plant growth promoting rhizobacteria microorganism-mix provides for better root development and improved resistance against abiotic stress.

Analysis					
kg/ha	N	P	К	s	DММР
20	4.2	0	0	4.8	0.041
40	8.4	0	0	9.6	0.082
60	12.6	0	0	14.4	0.123
80	16.8	0	0	19.2	1.64
100	21	0	0	24	0.205
_					



Novatec® Solub 45

45-0-0



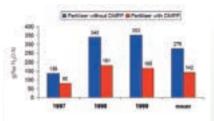
Pack size
4-10 weeks
longevity
Immediate
turf response
20-120L/ha
application rate
400-600 L/ha
Water volume
1666-10000m²
Pack coverage

45 % urea

NovaTec® Solub 45 provides a high urea nitrogen (N) demand that ensures greater efficiency in the use of nitrogen as well as **agronomic advantages.**

Analysis	45	0	0
kg/ha	N	Р	К
20	9	0	0
40	18	0	0
60	27	0	0
80	36	0	0
100	45	0	0

Effect of DMPP on N₂O emissions



NovaTec* Solub nitrification inhibitor reduces N leaching and increases N efficiency. During the active phase of **DMPP** (4-10 weeks, depending on soil temperature, soil type and soil humidity), the transformation of ammonium to nitrate is delayed. As a result, N availability is further adapted to the plants' requirements and N efficiency is increased.

Weather based release nutrition

The chart below shows the Influence of soil temperature on NH4 nitrification after application of ammonium sulphate nitrate and both ammonium sulphate nitrate & **DMPP** together.

ASN is rapidly used up by the plant within week 4 at 15°C whereas as **ASN+DMPP** has only used up 81% after 8 Weeks at 20°C. This means less leaching, less volatilisation and more environmentally friendly nutrition.

	Ammonium Sulphate Nitrate			Ammonium Sulphate Nitrate + DMPP		
Soil	Week 2	Week 4	Week 8	Week 2	Week 4	Week 8
temperature						
5°C	6%	12%	25%	0%	0%	0.5%
10°C	14%	27%	55%	7%	14%	28%
15°C	51%	100%	100%	14%	27%	54%
20°C	100%	100%	100%	20%	40%	81%





The role of Novatec® in the plant & soil

Novatec* Solub has a DMMP nitrification inhibitor reducing nitrogen leaching.

Novatec* Solub is fast acting and completely soluble lasting between 4-10 weeks.



Novatec* Solub provides better root development and improved resistance against abiotic stress.

Novatec* Solub uses weather based release technology and ensures correct nutrient availability according to the plants requirements.





Basfoliar[®] Liquids

A complete range of advanced liquid fertilisers & biostimulant technology for rapid action, high efficacy nutrient uptake for both foliar and root applications.



Nutrition

- Premium-quality liquid compound fertilisers
- High concentrated fertilisers suitable for foliar and soil application
- All products contain macroand chelated micronutrients
- Immediate absorption of nutrients where the absorption of nutrients through the roots is difficult



Acids

- Increases the abiotic stress tolerance
- Increases nutrient uptake and plant growth characteristics,
- Maximises turf quality
- Enhances natural plant defence mechanisms



Seaweeds

- Biostimulants nourish the soils
- Contains all elements in fully digestible form
- Basfoliar* fertilisers are high speed and highly effective
- Improves soil structure and water holding capacity



Stress Relief

- Increases the abiotic stress tolerance
- Increases nutrient uptake and plant growth characteristics,
- Maximises turf quality
- Enhances natural plant defence mechanisms



Basfoliar® 36 Extra SL

27-0-0+3MqO+TE



Basfoliar® 36 Extra SL combines 3 sources of nitrogen, 4.7% nitrate, 3.6% ammonium & 18.7% urea for optimum plant uptake. Magnesium and full trace element package enhance turf health and vitality.

Analysis	27		0	3
L/ha	N		К	MgO
20	7.24	0.00	0.00	0.80
40	14.47	0.00	0.00	1.61
60	21.71	0.00	0.00	2.41
80	28.94	0.00	0.00	3.22
100	36.18	0.00	0.00	4.02
120	43.42	0.00	0.00	4.82

Basfoliar® 10-4-7 SL

10-4-7+TE



201 Pack size 2-4 weeks longevity **Immediate** turf response 20-120L/ha application rate 400-600 L/ha Water volume 1666-10000m² Pack coverage

Basfoliar® 10-4-7 SL is ideal for growing season applications with its NPK+TE analysis. The triple source of nitrogen, 1% nitrate, 0.7% ammonium & 8.3% urea ensures immediate absorption of nutrients without excessive growth.

Analysis	10	4	7
L/ha	N	Р	к
20	2.40	0.96	1.68
40	4.80	1.92	3.36
60	7.20	2.88	5.04
80	9.60	3.84	6.72
100	12.00	4.80	8.40
120	14.40	5.76	10.08

Basfoliar® Ferro Top SL

15-0-0+4S+8Fe+Cu+Mn



Pack size 2-4 weeks longevity **Immediate** turf response 10-30L/ha application rate 400-600 L/ha Water volume 3333-10000m² Pack coverage

Basfoliar® Ferro Top SL provides rapid greening and increases the vitality and resistance of turf. Basfoliar® Ferro Top SL creates the formation of plant enzymes and proteins which are responsible for photosynthesis and respiration.

ľ	Analysis	15		0	4	8	0.002	0.04
	L/ha	N	Р	к	S	Fe	Cu	Mn
ı	10	2.07	0.00	0.00	0.55	1.10	0.00	0.01
ı	15	3.11	0.00	0.00	0.83	1.66	0.00	0.01
I	20	4.14	0.00	0.00	1.10	2.21	0.00	0.01
	25	5.18	0.00	0.00	1.38	2.76	0.00	0.01
I	30	6.21	0.00	0.00	1.66	3.31	0.00	0.02



Basfoliar® Avant Natur SL

5-0-0+10% amino acids



Basfoliar® Avant Natur SL contains fully plant derived L-amino acids specially designed to improve stress tolerance and to stimulate plant & root growth, nutrient uptake and plant development.

Analysis	5	0	0
L/ha	N	P	к
10	0.60	0.00	0.00
15	0.89	0.00	0.00
20	1.19	0.00	0.00
25	1.49	0.00	0.00
30	1.79	0.00	0.00

Basfoliar® Root Booster **SL**

20-5-0+amino acids



Basfoliar* Root Booster SL is a liquid NP fertiliser (20-5) with biostimulant effects based on a special formulation of synthesised plant-based complex amino acids to promote root growth.

Analysis	20	5	0
L/ha	N	Р	К
10	2.40	0.60	0.00
15	3.60	0.90	0.00
20	4.80	1.20	0.00

Basfoliar® Black

0-0-2+7.5% Humic acid+7.6% Fulvic acid



Pack size
2-4 weeks
longevity
Immediate
turf response
10-20L/ha
application rate
400-1000 L/ha
Water volume
1-2Ha
Pack coverage

Basfoliar® Black improves the soil structure and water holding capacity.
Basfoliar® Black stimulates the development of beneficial microorganisms from the soil as its a rich source of carbohydrates.

Analysis	0	0	2
L/ha	N	P	к
10	0.00	0.00	0.22
15	0.00	0.00	0.33
20	0.00	0.00	0.44



Basfoliar® Kelp SL

0.2-1.5-0.1+35% Ecklonia



Basfoliar® Kelp SL is a natural extract of the brown algae Ecklonia maxima, containing natural beneficial substances, proteins and amino acids for enhanced root growth, plant establishment and stress relief.

Analysis	0.2	1.5	0.1
L/ha	N	P	К
5	0.01	0.08	0.01
10	0.02	0.17	0.01
15	0.03	0.25	0.02
20	0.04	0.34	0.02

Basfoliar® Rhizo Bio SL

35% Ecklonia maxima+BAA + Fe,Mn,Mo,Zn



Basfoliar® Rhizo Bio SL contains Ecklonia maxima, rich in auxins combined with the innovative Bascillus amyloliquefaciens ActiStart R6 (BAA) microorganism that strenghtens turf and activates root and plant physiology development.

Analysis	0.6	0.45	0.025	0.40
L/ha	Fe	Mn	Мо	Zn
5	0.03	0.02	0.00	0.02
10	0.07	0.05	0.00	0.04
15	0.10	0.07	0.00	0.07
20	0.13	0.10	0.01	0.09

Basfoliar® Aktiv SL

3-0-18+TE+10% Ecklonia maxima



Pack size
2-4 weeks
longevity
Immediate
turf response
5-10L/ha
application rate
300-400 L/ha
Water volume
1-2Ha
Pack coverage

Basfoliar® Aktiv SL stimulates shoot and root growth strengthening the plants' natural defences. **Basfoliar® Aktiv SL** phosphites aiding **disease resistance** via the induction of beneficial metabolic responses to pathogens. KH₂PO₃ - 635g/l

Analysis	3	0	18
L/ha	N	Р	к
5	0.21	0.00	1.24
10	0.41	0.00	2.48



Basfoliar® Si SL

1.5-0-0.6+2Si+13.4% glycine betaine



Basfoliar® Si SL maximises turf quality and reduces abiotic stress due to the combined actions of silicon & glycine betaine. Glycine betaine also acts as an **osmoprotector**, limiting water loss from plant cells while the silicon further **protects cell walls.**

Analysis	1.5	0	0	2
L/ha	N	Р	К	Si
5	0.08	0.00	0.00	0.10
10	0.16	0.00	0.00	0.21
15	0.23	0.00	0.00	0.31
20	0.31	0.00	0.00	0.42

Basfoliar® Top-N SL

28-0-0



Basfoliar® Top-N SL is a highly effective nitrogen source for easy uptake containing 11.5% urea and 16.5% urea formaldehyde. Basfoliar® Top-N SL is highly resistant to leaching and has a very low salt index and EC.

Analysis	28	0	0
L/ha	N	Р	К
20	7.00	0.00	0.00
40	14.00	0.00	0.00
60	21.00	0.00	0.00
80	28.00	0.00	0.00
100	35.00	0.00	0.00
120	42.00	0.00	0.00

Basfoliar® Links SL

16-0-0+4MgO+8S+ glycine betaine



5L & 10L
Pack size
2-4 weeks
longevity
Immediate
turf response
5-10L/ha
application rate
300-600 L/ha
Water volume
1-2Ha
Pack coverage

Basfoliar® Links SL contains glycine betaine as an anti-stress biostimulant, complemented by nitrogen, magnesium and sulfur which provides turf with better resistance to osmotic and saline stress, as well as to **cold** and **heat** stress.

Analysis	16	0	0	4	8
L/ha	N	Р	К	MgO	s
10	2.00	0.00	0.00	0.50	1.00
15	3.00	0.00	0.00	0.75	1.50
20	4.00	0.00	0.00	1.00	2.00
25	5.00	0.00	0.00	1.25	2.50
30	6.00	0.00	0.00	1.50	3.00





The role of Basfoliar® in the plant & soil

Strengthens the cell walls of plants & enhances photosynthesis

Provides NPK nutrition throughout the year

Enhances natural plant defence mechanisms

Increases stress tolerance & stimulates plant &root growth

Rapid greening & increases vitality & resistance of turf

Stimulates the development of beneficial microorganisms



Ecklonia maxima, the foundation of Vitanica®

& Basfoliar®.



Mechanically extracted by a

Cold Micronisation Process

No Heat No Chemicals

No pH change



Vitanica® & Basfoliar® liquid seaweed extracts are produced from sustainably harvested kelp rich in nutrients perfect for turf.



Vitanica® & Basfoliar® unique composition of natural biostimulants, mainly auxin, stimulates root and shoot growth.



Vitanica® & Basfoliar® improves the dynamic biochemical processes in the plant for optimal plant cell development.





Vitanica®.

Seaweed extracts to promote plant vitality and root growth. Containing macro- and trace element nutrients, with beneficial microorganism or silicon.





Vitanica® RZ

5-0-5+30% Ecklonia maxima+*Bacillus sp.*



Vitanica® RZ contains the beneficial and complex mode of actions of the *Bacillus sp*. Vitanica® RZ has a stimulating effect on the root growth and supports the vitality and stress tolerance of the plants.

Analysis	5	0	5
L/ha	N	Р	к
10	0.55	0.00	0.55
15	0.83	0.00	0.83
20	1.10	0.00	1.10

Vitanica® Si

5-3-7+10% Ecklonia maxima+10% SiO₃



Vitanica® Si produces strong, resistant grass blades increasing plant tolerance to disease, drought & heat stress. **Vitanica® Si** increases photosynthetic activity strengthening the cell wall structures which greatly improves trueness and speed.

Analysis			
10	0.55	0.33	0.77
	0.825	0.495	1.155
20	1.1	0.66	1.54

Vitanica® P3

5-0-10+30% Ecklonia maxima+TF



Pack size
2-4 weeks
longevity
Immediate
turf response
10-30L/ha
application rate
600-1000 L/ha
Water volume
3333-10000m²
Pack coverage

5 % urea

Vitanica® P3 contains active substances to promote root growth and development in the soil. Increased photosynthetic performance, enhance the resistance of the turf grasses against stress.

Analysis	5		10
L/ha	N	Р	
10	0.55	0	1.1
15	0.825	0	1.65
20	1.1	0	2.2
25	1.375	0	2.75
30	1.65	0	3.3



Vitanica® MC

11-3-7+30% Ecklonia maxima+*Cu*+*Fe*+*Mn*



Vitanica® MC contains bioactive organic components amino acids and vitamins producing a fast effect on plant growth, colour, vigour and health of grasses and turf. **Vitanica® MC** micronutrients are chelated for protection against fixation in the soil.

Analysis	11	3	7
L/ha			К
10	1.21	0.33	0.77
15	1.82	0.50	1.16
20	2.42	0.66	1.54
25	3.03	0.83	1.93
30	3.63	0.99	2.31

Vitanica® P3 Extra

5-9-10+30% Ecklonia maxima+ 10% Ascophyllum nodosum+TE



Pack size

2-4 weeks
longevity
Immediate
turf response
20-30L/ha
application rate
600-1000 L/ha
Water volume
3333-5000m²
Pack coverage

Vitanica® P3 Extra is a liquid NPK fertiliser that stimulates the development of root growth & strengthens the plants. Vitanica® P3 Extra increases turf tolerance and resistance towards abiotic stress.

Analysis	5	9	10
L/ha	N		
15	0.915	1.647	1.83
20	1.22	2.196	2.44
25	1.525	2.745	3.05
30	1.83	3.294	3.66

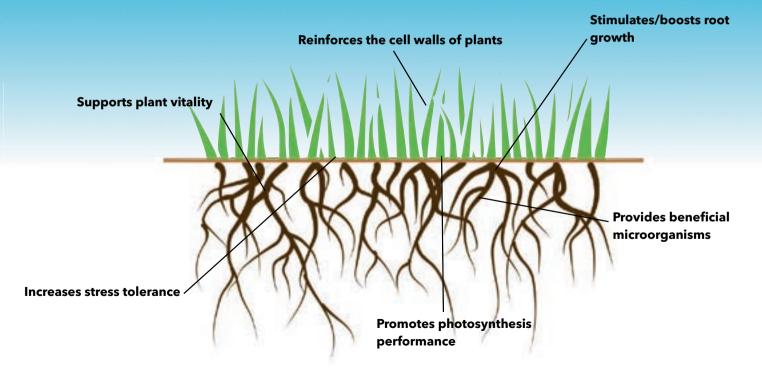
Vitanica® Benefits

- Increase of the anti-stress hormone Cytokinin
- Improvement of photosynthesis performance
- Increase of carbohydrate storage = Depot for increased stress-related consumption
- Increase of antioxidants and thus protection from photooxidative stress
- Promotion of root growth
- Grass stabilisation

3-4 applications of 10-20 I/ha Vitanica® algae extracts have proven in practice to be excellent, especially during the summer at intervals of about 3 weeks. The algae extracts from the sea weed Ecklonia maxima are produced in a gentle cold process and containing therefore a high concentration of bioactive ingredients, such as e.g. antioxidants responsible for heat tolerance. All Vitanica® products can be combined with 0.5-1 I Kick® Wetting Agent to improve the absorption of nutrients and active ingredients, especially in the case of dry weather.





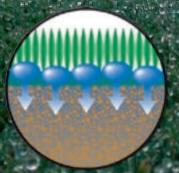












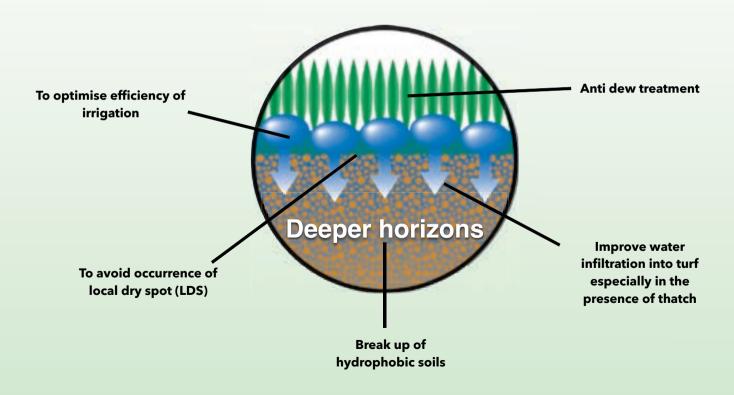
Kick®

Wetting agent





The highly effective **Kick®** range offers the practical solution for **eliminating dry spots** that have already occurred and for scheduled **prevention** on amenity turf. Through targeted treatment, dry spots are moistened again, so that **regeneration of growth** can begin.



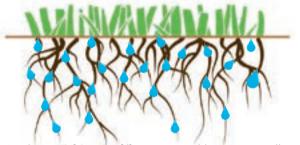




Product information

- Pack size 2.5 L
- Pack coverage 1 ha
- Application rate 2.5 L/ha
- Water volume 600-800 L
- Frequency Every 4 weeks
- Area of use Fine turf surfaces
- Action Increase water penetration and absorption. Prevents dry patch when used in a regular programme

Kick* is a highly effective wetting agent concentrate increasing the **water absorption** of all types of turf soils **preventing drought** damage. Implementing a **Kick*** program ensures roots can continue to grow intensively and open up **deeper horizons**.



Applying **Kick*** at **2.5 l/ha** on a monthly program will ensure **consistent even moisture control** within your soils. **Kick*** will also improve **fertiliser** and **bio stimulant** performance encouraging healthy **soil biodiversity.**





It has been **scientifically proven** that **Kick*** lowers the **freezing point** of soils by **-2.2°C**. This provides extra **frost protection** during those early spring / late autumn days protecting your turf from damage and **keeping soils warmer**.





Product information

- Pack size 5 L
- Pack coverage 2 ha
- Longevity 1-3 weeks
- Application rate 2.5 L/ha
- Water volume 300-350 L
- Frequency Dew occurrence
- Area of use All turf surfaces
- Action Coats blades of grass to prevent the formation of dew. Ideal prior to renovation periods.

Kick* Dry Leaf has been specifically designed to provide optimum dew control. The unique formulation of Kick* Dry Leaf coats each blade of grass preventing the formation of dew for up to 21 days. Kick* Dry Leaf is micro-plastic free and can be used on all turf areas to prevent dew formation, help's minimise disease outbreaks and improve overall turf health and quality.







Kick[®] LDS



Cures hydrophobic soils



Promotes even water distribution



Retains moisture within the soil profile

Product information

- Pack size 10 L
- Pack coverage 1 ha
- Longevity 4 weeks
- Application rate 10 L/ha
- Water volume 600-800 L
- Frequency Every 4 weeks
- Area of use Fine turf surfaces
- Action Moves and retains moisture evenly within the root-zone. Prevents & cures dry patch when used in a regular programme

The active ingredient in **Kick® LDS** sticks itself with its apolar ends to the hydrophobic soil particles. The polar, hydrophilic (water attracting) ends protrude to the outside, are "loaded" with water, and direct it into the dry areas.















Kick® Fairway



Environmentally friendly



Designed for fairways & other outfield areas



Improves penetration and infiltration of water

Product information

- Pack size 10 L
- Pack coverage 5 ha
- Longevity 4 weeks
- Application rate 2 L/ha
- Water volume 600-800 L
- Frequency Every 4 weeks
- Area of use -Tees / Surrounds / Fairways / Sports fields / Lawns
- Action Increase water penetration and absorption. Prevents dry patch when used in a regular programme

Kick* Fairway is a highly effective wetting agent. It increases the **water absorption** and **prevents drought damage** on the fairways. This also applies to subsequent irrigations in the following weeks. The ability to **re-wet is guaranteed**. The roots can continue to **grow intensively** again and open up **deeper horizons**. **Kick* Fairway** wetting agent is **biologically degradable** and friendly to **soil microbes**.











Selective products available from our many Distributors and Merchants

