

Rapid Renovation and Grow In

For rapid spring and cool season growth and fast grow-in of new sports turf the grass needs low salt fertilisers with a ready supply of carbohydrates and fulvic acid. Symbio Caviar and CMS Shoot is made from molasses by amino acid fermentation to retain proteins and nutrients, it is a rapidly available source of carbohydrates and amino acids to boost the plants resources for strong, healthy growth. These fertilisers are ideal for sports stadiums growing grass in shade.

**SYMBIO CAVIAR 10.0.4 with 25% FULVIC ACID
15% AMINO ACIDS ORGANIC FERTILISER**

APPLICATION 30-50g/m²

**SYMBIO CAVIAR Greens Grade 14.1.2 with
5% HUMIC ACID 5% AMINO ACIDS**

Pack sizes **20Kg, 500Kg**

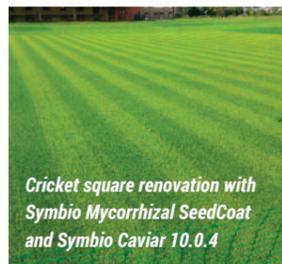
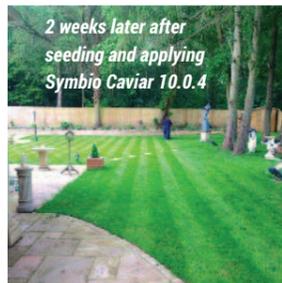
**SYMBIO CMS SHOOT 5.0.2 with 12% FULVIC ACID
9.2% AMINO ACIDS w/w ORGANIC FERTILISER**

CMS Shoot 5.0.2 Stimulates soil biology for early spring root and shoot growth.

APPLICATION

As a total fertiliser **30-50 litres per hectare**
As a biostimulant **10-20 litres per hectare**

Pack sizes **20 litres, 200 litres, 750 litres,
1,000 litres**



Cricket square renovation with Symbio Mycorrhizal SeedCoat and Symbio Caviar 10.0.4

SYMBIO TRADITIONAL LINKS FERTILISERS

Blood and bone, hoof and horn, humates and seaweed have been used as organic nutrients for centuries and are a foundation for traditional fescue links course management.

Symbio SSD 8.0.6 + 1 Fe
Symbio SSD 8.0.0

Symbio SSD 8.0.0 + 2.5 Fe
Symbio SSD 2.0.10 + 1 Mg Potash Plus

APPLICATION 25-50g/m²

Pack size **20Kg**

SYMBIO LIQUID FERTILISERS

Easy to apply, readily available nutrients for all heavily used sports turf.

SPRING and SUMMER 16.3.10 - 15.3.3 - 12.0.6+Fe

AUTUMN and WINTER 1.0.16. All with essential trace elements.

20.0.10 with added seaweed and humic acid.

Pack sizes **20 litres, 200 litres, 1,000 litres**

APPLICATION 10-100 litres per hectare

All liquid fertilisers may be mixed with Symbio biostimulants.

Base Saturation

In sandy soils with low organic content and cation exchange capacity the correct balance of calcium and magnesium ensures availability of other key nutrients.

Calcium is essential for strong plant cells and disease resistance in the plant. It is also the main component of the base cations and should make up at least 65% of the cations in the soil.

SYMBIO CALCIUM CARBONATE CaCO₃ – Ca 40% for soil pH < 5.5

SYMBIO GYPSUM CaSO₄ – Ca 27% for soil pH > 5.5

Both products are greens grade granules 1-1.5mm applied by fertiliser spreader into tine holes.

APPLICATION 50-100g/m² Pack size **25Kg**

Correct magnesium levels are needed for quality rootzones and efficient nutrient uptake. Magnesium should comprise at least 5% and up to 12% of the base cations in the soil.

KIESERITE 16% MgO

Kieserite is the most effective way to manage magnesium shortfall in the long term.

APPLICATION 25-50g/m² At any time of year. Pack size **25Kg**

As a rough guide in sandy soils the ratio of Ca:K:Mg in sports turf rootzones should be approx. 7-10:2:1 with magnesium Mg a minimum of 50ppm for efficient nutrient uptake.

Cation Exchange Capacity CEC

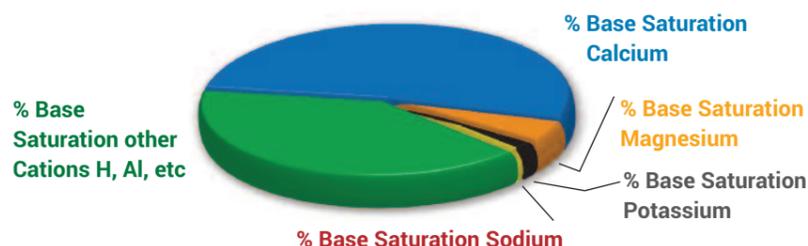
The cation exchange capacity of the soil measures the ability of the soil to hold onto the positively charged nutrients e.g. calcium, magnesium, potassium and ammonium. Typical sports turf rootzones have a very low CEC which can easily be increased by applying Symbio TraceOlite.

SYMBIO TRACEOLITE – zeolites with high CEC 170-250Meq/100g retains water equal to 40% of its weight.

APPLICATION 1-10 tonnes per hectare

Soil Analysis

Symbio's technical team will be pleased to help interpret your soil analysis to work out the best nutrition program for your turf and budget.



SYMBIO

www.symbio.co.uk

Unit 8, Coopers Place, Combe Lane, Wormley, Surrey GU8 5SZ

Tel: +44 (0)1428 685762 | Fax: +44 (0)1428 685702 | info@symbio.co.uk

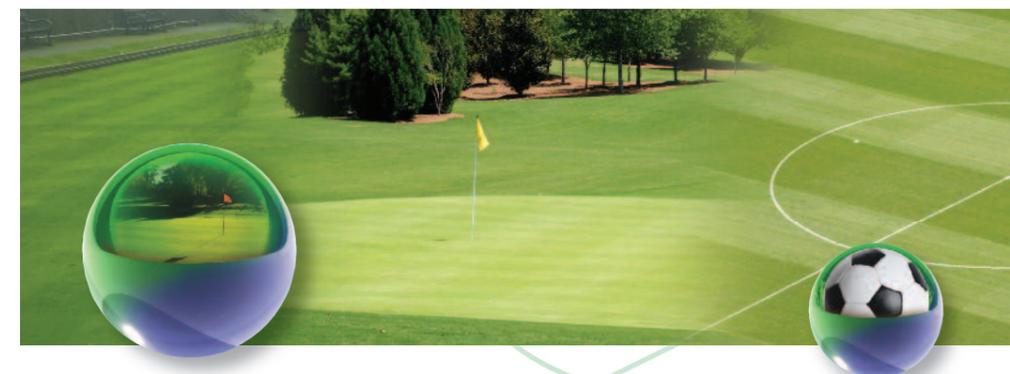
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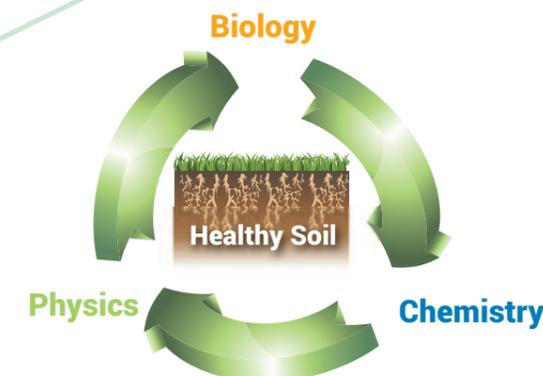


Improving soil and plant health since 1990

Advanced Grass Nutrition



Combining the best of soil microbiology with organic and inorganic nutrition



In 1999 when Symbio launched its range of MycoGro biological fertilisers we were one of just over 1,000 companies awarded Millennium Product status by the Design Council for showing "Innovation, Ingenuity, Inspiration and Imagination." Soil biology controls the plants nutrient uptake and it was recognised that purely chemical nutrition was no longer sustainable. Since then Symbio has continued to develop and refine the techniques that combine the best of soil biology, chemistry and biostimulants for healthy, easy to manage sports turf.

SYMBIO MYCOGRO COMPLETE ORGANIC BIOLOGICAL FERTILISERS

ORGANIC FERTILISER, RICH IN HUMUS WITH ADDED MYCORRHIZAL FUNGI, SOIL FUNGI, BACTERIA AND SEAWEED MEAL

Organic fertilisers put life back into your soil. Symbio's **MycoGro Organic Fertilisers** contain poultry manure, composted to 70°C to kill all weeds and pathogens. The organic content contains 76% humus and all the macro and micronutrients grass plants need for healthy growth.

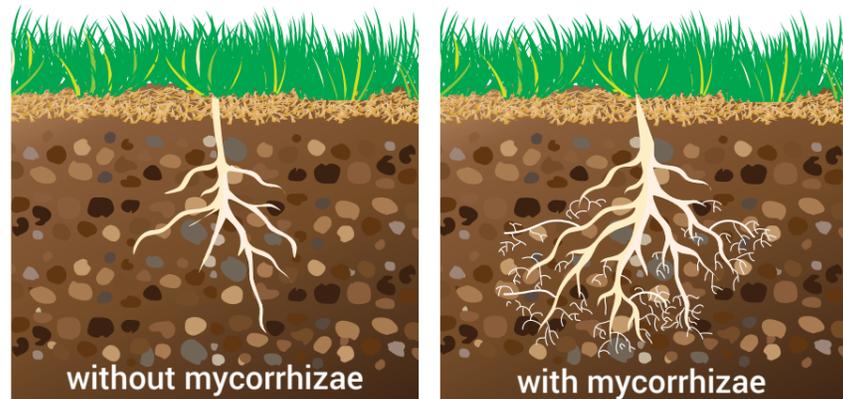
CHEMICAL ANALYSIS

- Symbio MycoGro 5.3.8 - 100% Organic.
- Symbio MycoGro 10.2.10 + 4% Mg - 50% Organic
- Symbio MycoGro 5.2.10 + 4% Mg, 2% Fe - 50% Organic

APPLICATION 25-50g/m²

Organic content contains the trace elements: Copper, Magnesium, Manganese, Zinc, Molybdenum, Sulphur, Boron, Iron.

Pack size **20Kg**



Mycorrhizal fungi extend the root systems of the plant

The mycorrhizal fungi in MycoGro fertilisers are *Glomus clarum*; *G. intraradices*; *G. mosseae*; *G. deserticola*; *G. Monosporus G. brasilianum*; *G. etunicatum*; *G. aggregatum* and *Gigaspora margarita* with a minimum of 15,400 spores in every bag.

Symbio MycoGro Fertilisers also contain a broad spectrum of plant essential microbes including 7 essential species of soil fungi for thatch reduction and fine grass promotion and 5 species of *Bacillus* bacteria for phosphate solubilisation, nutrient retention and plant growth promotion.

SYMBIO MYCOGRO COMPLETE BIOLOGICAL FERTILISERS

WITH MYCORRHIZAL FUNGI, SOIL FUNGI AND BACTERIA

SPRING and SUMMER

- Symbio MycoGro 10.0.0 + 4% Mg
 - Symbio MycoGro 10.0.10 + 4% Mg
 - Symbio MycoGro 10.0.20 + 2.4% Mg 1.6% Fe
 - 11.2.14 + 3Mg, 1.1% N Methylene Urea 3 month slow release
- All with trace elements.

AUTUMN, WINTER and SPRING

- Symbio MycoGro 5.0.28 + 2.4% Mg 1% Fe with trace elements.
- Symbio MycoGro 9.3.14 + 2% Mg 2% Fe (without mycorrhizae).

APPLICATION 25-35g/m²

Pack size **20Kg**

MycoGro Complete Biological fertilisers contain readily available and slow release inorganic nutrients. See product data sheets for the nutrient sources within each fertiliser.



What Mycorrhizal Fungi do?

Mycorrhizae are fungal associations that effectively expand the root system of the plant. Mycorrhizal fungi solubilise nutrients allowing the plant to access nutrition and water more efficiently.

Mycorrhizae also help fescue, bent, rye and perennial *Poa* species to dominate *Poa annua*.

Bent, fescue and rye grasses rely heavily on mycorrhizae for survival in nature. In sports turf, levels of mycorrhizae are often low or non-existent due to sterile soils, compaction, pesticide and inorganic fertiliser use. With the ever increasing price of seed it makes sense to make sure you get the maximum establishment possible.

For research and trials data, contact Symbio or log on to our website www.symbio.co.uk

SYMBIO MYCOGRO TEE, PITCH, LAWN AND FAIRWAY FERTILISERS

CONTAIN THATCH EATING FUNGI AND BACTERIA

- 12.2.9 50% Organic pack sizes **20Kg**
- 15.2.15 20% Methylene Urea pack sizes **20Kg**

Bacteria solubilise locked up phosphate and make it available to the plant, they also retain nutrients reducing leaching and release polysaccharides to bind soil particles together creating more space for air, water and root growth.

Degrade thatch and convert it into plant food with our outfield grade fertilisers with extra thatch eating fungi.

- 7.0.10 with extra thatch eating fungi pack size **25Kg**
- 10.0.10 with extra thatch eating fungi pack size **25Kg**

Fungi convert thatch, dead moss and grass clippings to humus which coats soil particles to increase cation exchange capacity and increase the nutrient holding capacity of the rootzone. Humus improves drainage and reduces drought stress.



New stadium pitch 4 weeks after seeding with Symbio Mycorrhizal Fungi

APPLICATION 25-50g/m²

SYMBIO CONVENTIONAL FERTILISERS

FINE TURF MINI GRANULAR 1.5 - 3mm 12-0-9 +1Fe +0.5Mg 12-3-9 +1Fe +0.5Mg 3-10-5 4-6-8 +2Fe	ORGANIC BASED GRANULAR 2 - 4mm (10-12 Weeks Release) 12-6-6 21-1-0.45 +1Mg	FINE TURF ORGANIC BASED MINI GRANULAR 1.5 - 3mm (10-12 Weeks Release) 12-6-6 5-3-8 18-3.5-8 +Mg +TE
GROW IN and OUTFIELD GRANULAR 2 - 4mm 7-7-7 9-7-7 6-9-6 12-6-6 10-15-10 20-10-10	FINE TURF MICRO GRANULAR 1.5 - 2mm 4-0-0 +11Fe 8-0-0 +4Fe +2.4Mg 8-0-6 +2Fe +1Mg 5-0-28 +2Fe +1Mg 10-4-4 +3.5Fe with Mecoprop P and 2,4D	TURF HARDENERS AND LAWN SAND 3.0.3 + 3Fe 1.5Mg 3.0.0 + 7Fe
APPLICATION 25-50g/m²		

