

SEED SUPPLIERS

Hurrells

amenity grass and wild flowers seed in northern England

Hurrells Specialist Seeds, Beverley Road Cranswick Driffield East Yorkshire Y025 9PF Tel: 01377 271400 Fax: 01377 271500

Email: nick@hmseeds.com www.hmseeds.com

SOIL SCREENERS

SOIL SCREENERS

Produce high quality topsoil from your own recycled materials HIRE AND SALES

Contact Dave on 01380 828337 Mobile: 07971 843802 email: sales@synergyproducts.ltd.uk

www.synergyproducts.ltd.uk

SPARE PARTS





SPRAYERS



SPORTS TURF COVERS



Leaders in covering all sports ground surfaces from cricket, tennis, football, rugby and much more

www.stuartcanvas.co.uk sales@stuartcanvas.co.uk (01925) 814525

SPORTS TURF CONTRACTORS





Advertising in this classified section costs as little as £200 a year

A sense of humus!

WORMS THAT DO A GOOD TURN



Using the benefits of worms, without the associated problems, can help create a healthier turf. Clive Pearson of ORM Products reckons they will help in the fight against nematodes.

nyone walking through Hall C at Harrogate may well have noticed a slight 'earthy' smell on one of the stands. The reason? ORM Products had livestock on their stand. Well, earthworms to be exact; thousands of then!

The company were promoting a new product, Vermi~Green, which is produced by the feeding action of earthworms and, to them at least, it seemed like a good idea to show the little critters at work. The earthworms ingest organic matter, fragmenting and grinding it into a finely divided peat like material with high porosity, aeration, drainage and water holding capacity.

This process enhances microbial activity and accelerates the rate of decomposition. This leads to a humification effect where unstable organic matter, or decomposing plant and animal matter, is oxidised and stabilised.

Humus forms the dark brown or black mass of the upper rootzone area and is important for storing and releasing plant nutrients.

The process is similar to composting except it is non thermophilic, a cold process utilising naturally occurring rootzone dwelling micro organisms. The product has a large surface area and a high cation exchange capacity providing strong absorbability and retention of nutrients.

It contains nutrients in a form

that are readily taken up by plants, such as nitrates, exchangeable phosphorous, soluble potassium, calcium and magnesium.

According to ORM, it contains a far more diverse microbial population than any other product. Micro organisms play an important part in rootzone fertility, they not only mineralise complex substances into nutrients available to the plant but bacteria in the earthworms digestive system also synthesises a whole series of biologically active substances including plant growth regulators.

Earthworms promote the production of plant hormones, auxins, gibberellins and cytokinins from organic waste dramatically. Auxins are responsible for cell elongation, cytokinins for promoting cell division and gibberellins for stem elongation. These hormones are dose significant and play a fundamental role in plant metabolism. They can influence plant growth and development significantly when present at very low concentrations.

How does it work?

Turf grass trials have shown the effects with as little as 100 grammes per square metre making significant improvements to root growth health and sward development.

The low percentage required for a dramatic response

indicate that the responses are more than simply a function of supplying plant nutrients and that other related growth stimulants are involved. It has now been found that Vermi~Green increases microbial populations, and adds biologically active metabolites such as plant growth regulators (auxins, cytokinnins and gibberellins.

It has consistently improved seed germination, enhanced seedling growth and development and increased plant productivity much more than would be possible from the mere conversion of mineral nutrients into more plant available forms. It has also been shown to reduce the incidence of plant diseases.

Research indicates that microbial activity and the makeup of the microbial communities existing in the product play an important role in plant growth responses. The reason appears to be that different microbes act on different substances, from simple sugars to complex substances. If any are missing it will inhibit growth.

The diversity of microbes allows all substrates to be broken down.

The role of earthworm derived humic acids has also received much attention recently especially with relation to nematode problems. Humic acids are produced by the breakdown of organic matter by micro organisms. They are generally negatively charged so attract positive ions, such as calcium. Humic substances promote the conversion of a number of elements into forms available to plants, of particular importance is phosphate.

Phosphate reacts with other minerals in the soil, (particularly iron and aluminium) and becomes locked or unavailable to plants. Humic acids help substitute iron and aluminium with other elements, e.g. calcium, making phosphate available to plant roots.

Vermi~Green is humus rich. The breakdown of organic material by earthworms accelerates the humification of organic matter. The humic and fulvic acids produced in this process have been proven to stimulate plant growth beyond that produced by solely the mineral nutrient.

Humic acids are large complex molecules. Partial oxidation of humic acids allow bonding sites for plant nutrients including calcium and magnesium and other humic like materials produced in the faeces of earthworms which

exhibit auxin, gibberellin and cytokinin like activities.

Studies of the positive effects of these humic substances on plant growth, when full requirements for mineral nutrition are met, consistently resulted in positive effects on growth, independent of nutrition. Humic acids have been reported to enhance mineral uptake by plants by increasing the permeability of the cell membranes of root cells. They appear to have greater effects upon the root growth of the plants than on the above ground parts of the plant. Stimulation of root growth, increased proliferation of root hairs, and enhancement of root initiation by humic acids, has been reported commonly by several other researchers.

The product is also available in liquid form as Vermi~Tea.

Leaf surfaces, like plant roots, harbour a rich microbial population that protects the leaf, and thus the plant, from infection and attack by pathogenic organisms. When the microbial consortium present on the leaf surface is reduced by pesticide or fungicide use or environmental damage it exposes leaf surface, opening infection points.

Furthermore it can be applied after chemical use to reintroduce microbial communities to the soil that may have been damaged by use of the chemical. The microbes can then continue to provide protection from pathogens to the plant as well as aiding in breakdown of any chemical residues in the rootzone, thereby preventing ground water contamination.

Research has shown that seed emergence was earlier. It has also proven to facilitate and hasten the development of the root system, resulting in a stronger sward, and to increase the colour depth of the blades making the plant more resistant to fungal attack.

ORM Professional Products (Brecon) Ltd are the largest worm breeders and suppliers to the fishing industry in the UK. They have been established in this market for over twelve years. During this period ORM (Organic Resource Management) have had an association with Professor Clive Edwards of Ohio State University in the research and development of vermiculture and the use of vermicompost products in the amenity and horticultural markets.

For more information visit: www.ormproproducts.com or contact Dan at Pitchcare.



SPORTS TURF CONTRACTORS



TOP DRESSING OVER SEEDING DE-COMPACTION VERTIDRAINING GROUND BREAKING

SPECIALISTS IN ALL ASPECTS OF SPORTSTURF CONSTRUCTION **DRAINAGE & MAINTENANCE**

TEL: 01494 866776 FAX: 01494 866779 www.agripower.co.uk

Alan Chappelow Sports Ground Contractors Ltd.

el: 01924 493359 Mob: 07778 288579

Avonmore Associates

sportsfield construction

25 year of experience in bowling greens, fine turf management, pitch design, sportsfield construction and irrigation

Tel: 01789 293439

email: info@avonmore-associates.co.uk www.avonmore-associates.co.uk

CH GROUNDS **MAINTENANCE LTD**

Sports Turf — Construction Drainage — Maintenance

Verti-draining Top dressing Seeding & Spraying Koro Field Topmaker Ground Breaker and Sandmaster

> Bucks: 01494 758208 www.charounds.com E-mail: info@chgrounds.com

<u>buryturfcare</u>

Vertidraining, Hollow Coring, Overseeding, Draining, Gravel Banding, Field Top Maker, Deep Scarifying & all types of Sports Turf Maintenance

Mobile: 07860 259692 Tel: 01284 735105 Fax 01284 735105

Email: peter@buryturfcare.com www.buryturfcare.com



DRAINAGE LTD

SPECIALIST SPORTSTURF CONSTRUCTION & DRAINAGE CONTRACTORS

Gravel Banding
Sand Slitting

• Top Dressing • Renovation • Irrigation

Unit 7, Brailes Industrial Estate, Winderton Lane, Lower Brailes Banbury, Oxfordshire OX15 5JW

Tel: 01608 685800 Fax: 01608 685801

email: jim@dwclarkdrainageltd.co.uk Web: www.dwclarkdrainageltd.co.uk

FTS Sportsground & Amenity Contractors

Cricket Pitch Specialists

Unit 5, Beenham Industrial Estate Reading, Berkshire RG7 5PP Tel: 0118 9714420 Mob: 07768 696291 Fax: 0118 9714522 www.fts-sportsturf.co.uk

