



Customer Information Pack

Our Approach

Current Practice

It's important that we start to re-think how we make the most of our lawns. The conventional approach is to assume that we buy a product or service to simply deal with a problem that crops up. Inorganic fertilisers and pesticides have come to be accepted as conventional and even essential for your lawn management of poor performance and weeds.

Not only is this approach to lawn care damaging to our lawns, but it is totally unsustainable, certainly in ecological terms, but also in economic terms. It's expensive and locks us into a symptom-treatment-symptom cycle that is hard to break out of.

What is the alternative?

We need to go back to an approach more aligned with nature. Your lawn is a natural battleground where fine grasses compete for light, water and nutrients with other plants and weeds.

Therefore we need an environment that encourages fine grasses and is less hospitable to weeds and moss. If we provide them with a suitable growing medium and take care to mimic the other conditions they would naturally thrive in, our job is made a lot easier

Natural grasslands are self-sustaining systems, so we need to start thinking of our lawns as eco-systems and manage them sensitively in order not to upset the fine balancing act being played out daily in any eco-system. Enter the **Soil Food Web**.

The Soil Food Web

The soil food web is another way of thinking about the lawns eco-system. It is a community of organisms living all or part of their lives in the soil. It explains how these soil microorganisms interact with each other, the ecosystem – the soil environment and the plants and animals.



Why is the Soil Food Web important?

Understanding, or at least being aware of the soil food web is important for home owners looking to make the most of their lawns, for the simple reason that the problem-solution-problem cycle common in lawn care isn't sustainable either agronomically or economically.

Symbio Fertilisers

At Randles Lawn Care we have teamed up with Symbio to provide a lawn care service that harnesses the Soil Food Web to develop a more sustainable approach for your lawn.

Some of the benefits

Symbio fertilisers have added Mycorrhizal fungi to naturally expand the grass roots system, allowing it to take up nutrients and water more efficiently. Resulting in 30% water requirements and in turn improved lawn performance in drought conditions.

Our spring and autumn treatments have added Thatch eating enzymes to degrade the thatch in your lawn and converting it into natural plant food and the humus, humic and fulvic acids that create a free draining rootzone and sustainable plant growth.

This enables the home owner to focus on continually improving the lawn to new heights each year rather than the boom and bust approach of conventional approaches to lawn care.



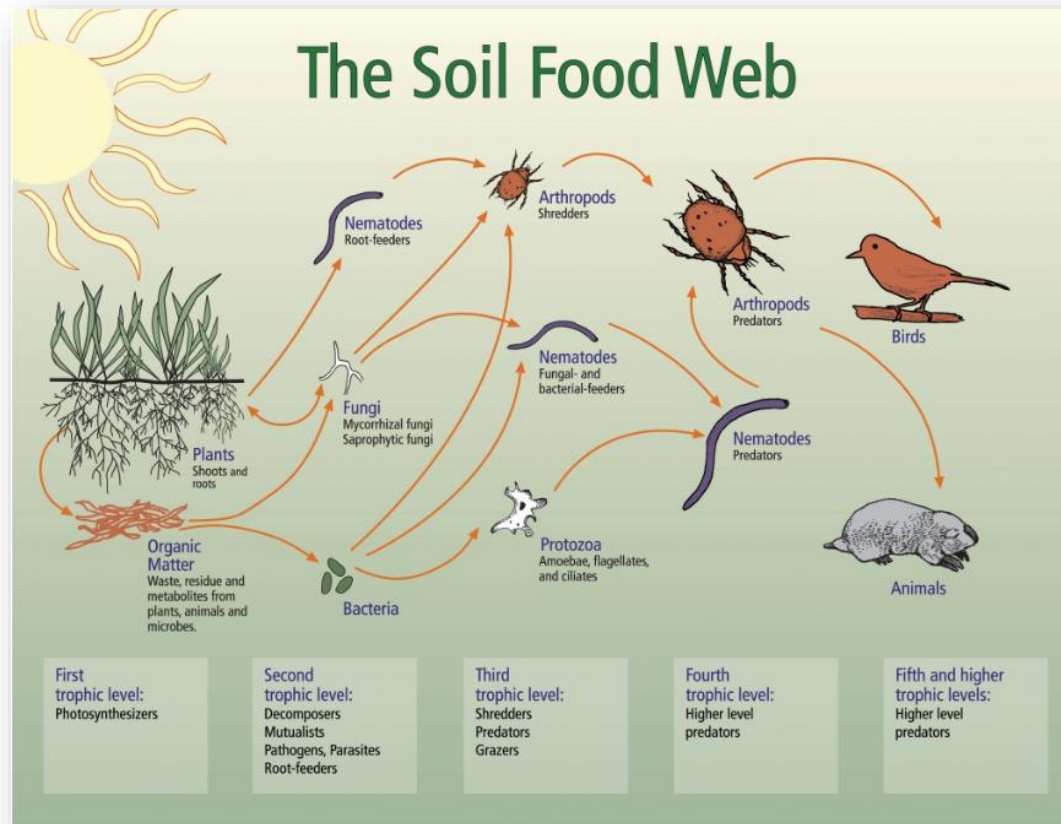
The Soil Food Web

A detailed look.

The Soil Food Web is shown on the right. It is the combination of organic matter and the community of organisms that decompose it in the soil. At the base of the web are bacteria and fungi which consume and decompose organic matter directly, converting nitrogen to plant-usable form and storing it in their bodies. Protozoa and nematodes prey on bacteria and fungi, releasing nitrogen to plants.

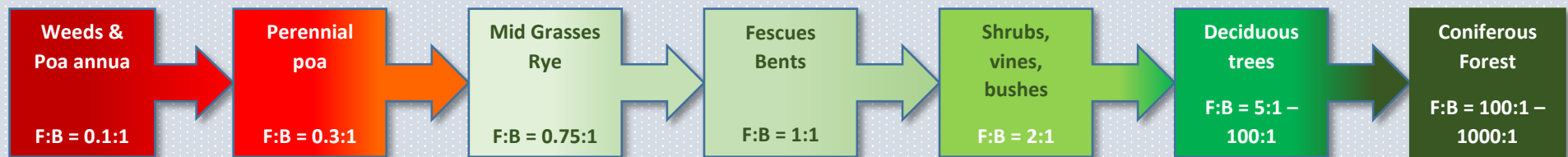
How does the Soil Food Web influence your lawn?

Perennial grasses thrive when the ratio of rootzone fungi to bacteria by weight is between 0.75:1 and 1.5:1. If your lawn is full of weeds, it will be closer to 0.1:1.



Develop the correct soil biology to grow perennial

Ratio of rootzone fungi to bacteria by weight



F:B = Ratio of Fungi : Bacteria

Symbio Fertilisers

Who are Symbio?

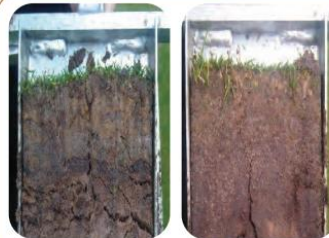


Symbio was established in 1990 to research and commercialise biological solutions to maximise soil and plant health. Their initial research partner was a spin off from the Pasteur Institute in Paris. Working with academic and commercial partners Symbio has developed a product range to suit a variety of different environments. Using beneficial soil bacteria, mycorrhizal fungi and other microorganisms in the soil food web, Symbio products help their customers to grow strong, healthy and nutritious plants.

Symbio harnesses the benefits of nature and resolves poor soil health, by restoring the soil food web and providing cost effective management programs.



Reduce or eliminate the need for hollow coring and reduce top dressing



Inorganic fertilisers, hollow coring and top dressing

Symbio programme - no hollow coring

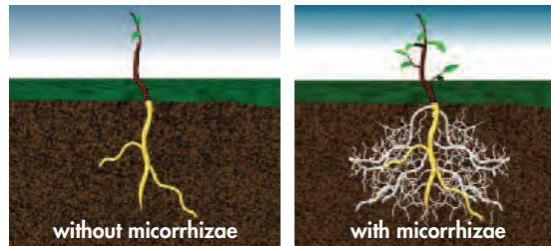
Trial conducted by Reaseheath College

Pictures taken 9 November 2011

5 greens were managed with a conventional inorganic fertiliser programme, hollow coring 2x per year and top dressing. 5 greens were managed with a Symbio biological and nutrition programme with no hollow coring. Both were micro tined.

Other important benefits

- ✓ Reduce disease
- ✓ Reduce dry patch and fairy rings
- ✓ Reduce fertiliser inputs
- ✓ Reduce management costs
- ✓ Improve the playing surface



Symbio Company Profile

From the Symbio website: *'Too often these natural systems are disrupted by our management practices. Agriculture, horticulture and turf management have come to rely on inorganic fertilisers and pesticides to stimulate plant growth and disease control. Fertiliser and pesticide costs are increasing, while the productivity of compromised soils is declining.*

Symbio works with nature to reintroduce soil biology and restore life to degraded soils. Symbio promotes healthy soil to ensure that soil microorganisms work for you, and you reap the benefits of healthy, strong plants.

Too often, modern commercial practices, intensive agriculture and high intensity turf management, result in excessive fertiliser and pesticide inputs, disrupting the natural processes that occur underground, resulting in weak and chemically dependent plants. The delicate balance between human activity and natural processes requires our focus to ensure that equilibrium is maintained.'



"Ever since we started using Symbio Mycorrhizal Inoculant, MycoGro Complete Fertilisers and TraceOlite the root depth and density has been fantastic producing a dense grass sward capable of withstanding heavy Premier Football play."

Paul Fiske
Head Groundsman,
Aberdeen Football Club



Roots on left inoculated with Mycorrhizal SeedCoat. Roots on right control.

Humic Booster

What is it?

This is fungal biostimulant treatment to improve the soil biology of your lawn.

It increases beneficial fungal activity to promote fine grasses, thatch reduction and disease management.

Benefits are:

- Increases Cation Exchange Capacity.
- Improves nutrient uptake & stimulates plant growth
- Increases microbial activity to improve soil structure

Humate, humic and fulvic acids are essential food for fungi and a stimulant for plant growth and soil structure. Symbio Humic Booster can be applied as a foliar feed or soil drench.



In sand rootzones?

Readily available humate substances are limited and should be added during the growing season to feed the fungi and bacteria that form the foundations of the soil food web.

Mycorrhizal SeedCoat

What is it?

Symbio Mycorrhizal seed coat contains spores of beneficial mycorrhizal fungi, growth promoting bacteria and fungi and organic soil nutrients to improve grass root growth, stress recovery and rapid establishment of newly seeded lawns.

Mycorrhizae are essential for grass health, attaching to the roots, they can increase the surface area for nutrients and water uptake by over 300%.

Benefits are:

- Increases the percentage of fine grasses over Poa annua (weed grass)
- Greatly improves root mass & increases nutrient uptake
- Mycorrhizal grasses need up to 30% less water in times of drought.
- Mycorrhizal grass suffer less from disease, heat & cold stress



Roots on the left have been inoculated with Symbio Mycorrhizal SeedCoat

Wetting Agent

What is it?

Water is an essential ingredient for growth and the vitality of turf. Using wetting agents to manage water to achieve optimal levels will enhance turf quality and reduce stresses induced by incorrect balances of air/moisture in the soil profile.

The treatment aims to stop your lawn becoming hydrophobic

It enhances turf quality and consistency during the year especially during drought conditions.

What is Hydrophobic?

Hydrophobic is a property of a substance that repels water. It means lacking affinity for water, and tending to repel or not to absorb water. This can happen to your lawns soil after prolong dry periods.



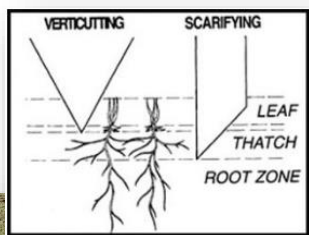
Verticut

What is it?

Verticutting is vertical mowing. The blades cut vertically through the turf canopy to thin it without compromising the leaf growth or turf density.

Verticutting slices and cuts into the soil to allow moisture, fertilizer, and nutrients to work their way to the grass roots and remove dead thatch and foliage from the turf. The blade breaks up the thatch so you can remove it more easily.

One of the benefits of verticutting is that it creates a more even look and feel to your turf and, over time, verticutting helps the grass grow thicker and healthier.



Soil Improver

What is it?

Using compost on grass as a topdressing, can be very beneficial. When you add organic matter to soil, it helps to improve the soil structure and add nutrients.

As the organic matter in compost breaks down, it produces excellent fertilizer. And because it's generally rich in nitrogen and other nutrients, adding a compost top dressing to your lawn will result in greener grass.

Also by improving the structure of your soil, you can improve its moisture retention. Soil that is rich in organic matter is less susceptible to compaction, which means that it will hold more water.

Soil that is rich in natural bacteria and microorganisms gives plants what's needed to help fight off disease and pests which might otherwise take hold.



Seaweed Bio Booster

What is it?

Scientific studies have identified seaweed extracts to have several measurable beneficial effects on plant growth;

- Early seed germination
- Enhanced quality of vegetative growth
- Elevated resistance to biotic (organism induced) and abiotic (environmental) stress
- Increased post-harvest shelf life

The seaweed will help to stimulate active soil microbes and maintain excellent turf condition. Seaweed can also be used as a tonic to reinvigorate turf after periods of stress.

Directly beneficial to soil structure and stimulates fungi and bacteria that are vital to soil health. Consequently, seaweed is categorised as a biostimulant.





Autumn lawn renovation

Scarifying

What is it?

Scarification is the mechanical removal of surface thatch from your lawn. It removes thatch, moss and other debris from the surface of the lawn. Too much thatch will suffocate your lawn from light, water and air. Increasing the chance of fungal diseases. It can also trap water at the up layer of your lawn resulting in shallow roots.

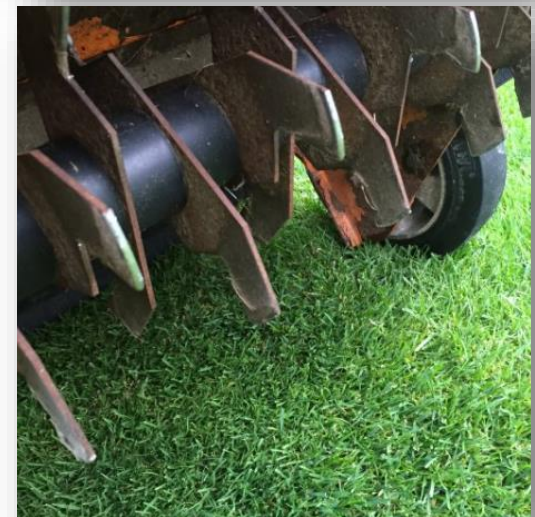
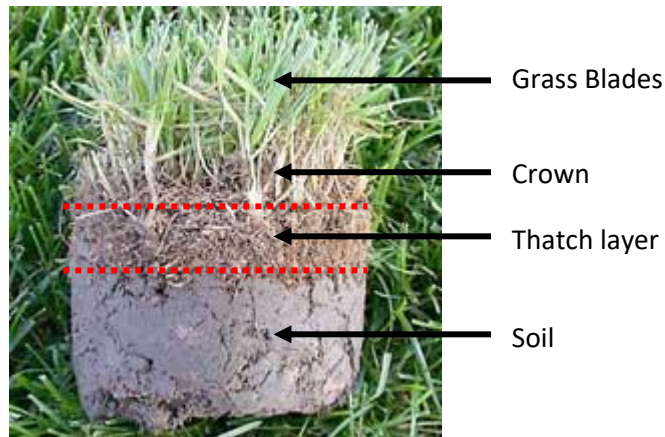
Does my lawn need to be scarified?

The easiest way to find out if your lawn needs to be scarified is to simply walk on it and if it feels spongy and you can visible see moss, your lawn needs to be scarified.

Thatch buildup occurs when the microbes in the soil cannot break down the organic matter as fast as it accumulates. Excessive thatch is caused by the absence of beneficial microbial activity.

How does our lawn program improve thatch naturally?

Our organic fertilisers include thatch eating fungi and bacteria, that convert thatch, dead moss and grass clippings into humus. Creating the biology needed for perennial grass growth.





Aeration

What is it?

Grass roots need air, water and nutrients to grow thick, deep and strong. When soil becomes compacted, even slightly, it inhibits the flow of the essentials that support thicker, healthier turf growth.

Aeration creates splits through the compaction layer of your lawn to help open up the rootzone to enable increased air, water and nutrients.

Does my lawn need to be aerating?

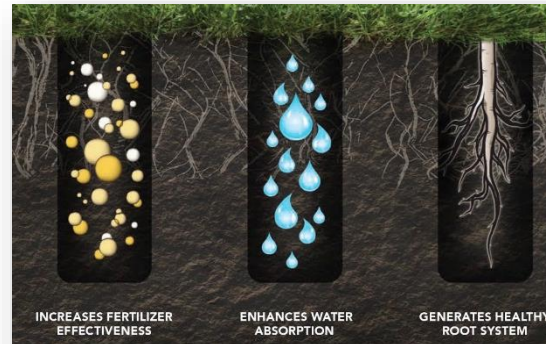
All lawns benefit from aeration as it increases the penetration of nutrients, air and water deeper into the rootzone. This stops your lawn struggling during stressful conditions, such as high temperatures or low rainfall.

Key signs your lawn needs aerations:

- Puddles. Puddles indicate compacted soil.
- Worn areas. Parts of your lawn that get heavy uses will show signs of compaction and require aerating.
- Thinning Grass. This is a sign of compaction, with roots unable to penetrate the compacted rootzone.

How does our lawn program improve your lawn naturally? →

Our fertilisers include Mycorrhizal fungi which improves root mass, increasing nutrient and water uptake. This increases the lawn's tolerance to drought and stress conditions.



Renovation

What is it?

Our lawn programmes can benefit most lawns and raise them to new standards, however sometimes when a lawn has not been maintained for some time, the quickest and most cost effect approach is to request a full renovation. This will take your lawn back to zero and rebuild it. Compared to returfing your lawn this method works out to be around 50% cheaper.

The Process

What is it?

The process is as follows:

- 1 .We will treat your lawn for weeds and moss and in some instances will advise the complete lawn is treated with glyphosate to remove weed grasses as well if required.
2. We return 4 weeks after this treatment to scarify away all the old lawn.
3. Once fully scarified and all material is removed we then aerator the lawn.
4. High quality seed is then applied with a number of option but we have our recommendation.



5. This seed is coated in Symbio's Mycorrhizal seed coating to maximise your lawns soil biology and increase the speed of germination.

6. We then fertiliser the lawn to ensure your new lawn has all the correct nutrients.

7. Finally we top dress the lawn in a combination of compost and top soil to add improve your lawns soil profile and give the seed the best growing medium possible.

8. We will then give you guidance on the best method to water your new lawn to ensure optimum germination conditions over the coming weeks.

9. We will revisit 4 weeks after completion to ensure you lawn is progressing as expected. Any additional overseeding required on the lawn may be carried out on this visit.

10. If overseeding is required we will revisit again in 4 weeks to ensure this seed has germinated, otherwise the renovation will be completed and you can enjoy your lawn.



Standard Weed Control All Surfaces

What is it?

Commercial strength Glyphosate weed control treatment for all surfaces.

We use Rosate 360 TF. It is a soluble liquid concentrate herbicide for the control of most species of emerged annual and perennial grass and broad-leaved weeds.

Rosate 360 TF is absorbed by the weed foliage and translocated to the growing points in the roots and to the underground rhizomes/stolons of perennial weeds.



Best results are obtained from applications made under good growing conditions (adequate soil moisture and warm/humid conditions), when the weeds are actively growing and at the recommended growth stages for treatment.

All year Weed control for Gravel

What is it?

We use a residual weed control with Glyphosate, to control weeds all year round. This enables us to only apply two treatments a year to control weeds on gravel surfaces for the complete year.

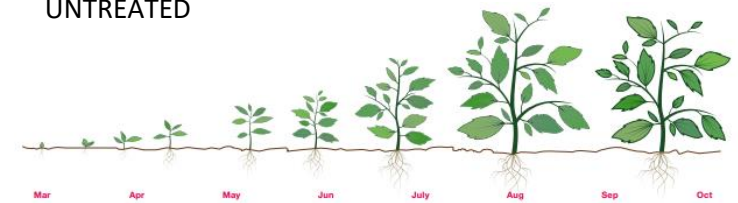
Residual weed control leaves a barrier on the surface treated to prevent new germination for a period of time, usually about 6-8 months per treatment, in standard weather conditions in the UK.

As for re-entry there is no requirement to restrict access to an area that has been treated with a mix of residual Weed Control plus glyphosate under normal usage conditions, by people, pets and wildlife. However it is recommended not to walk into areas where the spray could still be wet, as this could lead to transfer to other areas and damage to other plants and foliage.

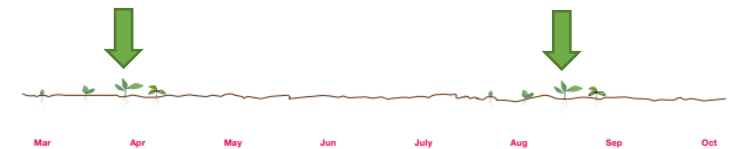


TREATMENT PROGRAM EXAMPLE

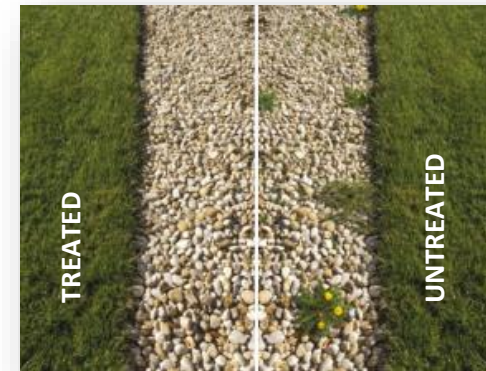
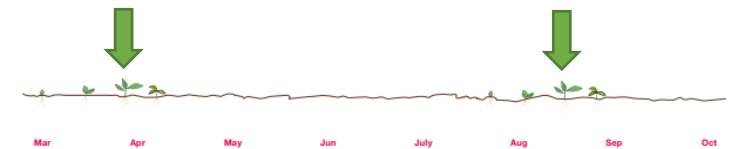
UNTREATED



TREATMENT 1



TREATMENT 2



Algae / Moss Control



What is it?

A biocide that removes algae and green deposits from hard surfaces and building materials such as asphalt, block paving, exterior wood, glass, plastic, bricks and concrete.

Benefits of treatment are:

- Removes any slip hazards around your property.
- Alternative to power washing to maintain clean finish on hard surfaces.
- Fast and long-lasting results which are visible within a few hours.
- Plant origin.

When to apply?

The treatment can be applied at any time of year when algae is present on both porous and non-porous hard surfaces.

Ideal conditions require no rain for at least two hours post-application and the temperature must be above freezing.

