

# Spring forward on the golf course



**Neil Mackenzie,  
Rigby Taylor's  
Business  
Development  
Manager talks about  
the nutritional 'kick-  
start' after a winter  
of trauma for turf**

**THE SNOW**, ice and short days may still be with us, but golfers are awakening from their enforced hibernation and looking forward to getting back on the course. Golf course management will also be extending a warm welcome to these hardy souls to provide much needed income for their clubs.

Greenkeepers, however, will be a little more wary as player expectations may be unreasonably high having been fed on a winter diet of televised golf showing blue skies, healthy greens, good colour and a consistent playing surface with fast putting speeds.

To produce such surfaces is a challenge at the best of times, but coming out of such a long period of stress caused by bitterly cold air and soil temperatures will test the turf managers skill over the coming months. A key area however will be in the area of nutrition to be in place to 'kick-start' growth when the longer days and warmer days arrive. Hopefully, attention will have been given to the application of nutrients during the autumn of the previous year. Research has demonstrated that, to maximise carbohydrate storage, it is important to ensure fertiliser is applied to the turf 2-3 months prior to dormancy

What you feed your turf, how you feed it and when all impact on the turf's photosynthetic capacity and physiological fitness. The right nutritional programme will stimulate an increase in root mass, which in turn will allow the roots to maximise the available carbohydrate reserves, reducing stress and increasing disease tolerance.

What you feed your turf (the source of nutrients) is of great importance because no year is ever the same. As every season is different then it must be that not all fertility plans are equal, nor do they produce equal results. For optimal turf quality, the emphasis should be placed on complete and balanced nutrition.

Greenkeepers today have access to a vast range of nutritional options involving organic complexes, chelated nutrients, proteins, seaplant extract and other beneficial supplements such as amino acids, vitamins and Humic Acid.

Environmental factors such as cold air, frosted ground and too much rainfall will all impact upon a plants ability to recover from the winter onslaught. Under ideal condition, plants synthesise their own amino acids (building blocks of proteins) but at the expense of energy. However, the problem is that under stressful conditions there is a greater demand for amino acids, which the plant is unable to meet. There

are now granular NPK products, the Guardian range is a typical example, that can be applied in the early part of the year that contain supplementary amino acids which enable the plant to achieve energy savings which can be better directed towards essential physiological processes, e.g photosynthesis, enabling turf to better recover from winter stress.

Other nutrient sources such as zinc, magnesium and iron combined, with amino acids, can also be utilised over the recovery months of a new year. These complexes will enhance root mass development, improve the uptake and retention of nutrients, and increase growth rate.

How you feed your turf (how it processes nutrients) is all about programmed application. As not one year is the same, therefore the nutrient that served you so well the previous year may be inappropriate to the current climatic condition. However one thing is constant and that is nutritional programmes should be directly related to mowing height. When heights are low, root mass potential is diminished and this is exacerbated because root mass is also reduced naturally in the summer due to ambient and soil temperature changes. The low mowing heights necessary for speed and roll compromises the turf's root systems at exactly the time that the root production is declining naturally.

Under such conditions, when root mass is weakened and/or roots are under stress, a programme incorporating foliar fertilisers should be considered so the turf is fed through both the leaf tissue and the roots. In this instance, products such as Microflow CX that contain humates derived from Leonardite (a bioactive form of humic acid) produces many benefits that result in improved plant health.

When you feed your turf (the distribution of nutrient loading during the year) has a great effect on the carbohydrate storage and leaf tissue growth. You want to plan the distribution of nutrient loading to maximise root mass and carbohydrate storage and minimise leaf tissue growth

Controlling leaf tissue growth is essential for meeting demands for putting quality. It's also essential for retaining carbohydrate reserves, because when you mow off top growth, the plant responds by trying to replace its lost photosynthetic area. The plant does this by drawing on carbohydrate reserves stored in the roots. This can put the plant in a deficit situation at exactly the time of the year when it is most vulnerable to stress and disease.

In the past some greenkeepers have 'starved' the turf to control growth to meet the demands for speed.



**Making expectation  
of healthy greens  
a reality**



This practice however makes the turf highly susceptible to stresses of all kind: double cutting, aeration, compaction, disease, drought, excessive rain, cold etc. Golfers don't give a moment's thought about what's happening below ground but they do care about surface appearance.

Designing and implementing the ideal nutrition plan for golf greens means understanding the importance of sources of fertility and timing of application of the necessary nutrient levels. It means you controlling nutrient inputs not the other way round!

Incorporating products containing concentrated amounts of seaplant extract with high levels of cytokinin plant hormones into the programme will improve stress tolerance and increases root mass and depth. Other products to consider incorporating into the greens programme are magnesium and manganese. Magnesium is the cornerstone of chlorophyll production and regulates the uptake of other plant nutrients. Manganese increases the availability of calcium (as pH increases, manganese availability

decreases), phosphorous and stimulates photosynthesis.

Many greenkeepers have always preferred to include organic fertilisers, such as those in the Microfine range, in their feeding programmes as they have the advantage of not only providing essential nutrients but also helping to increase microbial activity. As the soil starts to warm, the activity of soil microbes allow a gradual release of the organically bound nutrients over a period of several months.

The addition of such products, together with the practices referred to earlier, will provide your turf with an excellent start to the, providing good colour without stimulating unnecessary growth. The result may even put a spring in the step of those early starters.

For more information call FREEFONE 0800 429 919 or visit [www.rigbytaylor.com](http://www.rigbytaylor.com)

