



HOW TO COMBAT STRESS ON THE GOLF COURSE

Philip Armitage B.Sc Hons, MBPR, RIPTA, gives advice about treating your turfgrass on the course.

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Are you anxious to know if your golf course can withstand more members and players? Or perhaps you are worried about whether Tiger Woods will really return to the same standard of sporting elitism as before? Or maybe you are concerned about how climate change will affect the condition of your golf course in the future? In each of these examples, stress is the common denominator, and it is often defined at different levels based on your own and other people's perceptions.

Types of stress

Fortunately for us, turfgrass is affected by stress in a more physical manner; this enables us to identify stress and to deal with it accordingly, after investigation. A stress symptom is often visible by the naked eye, such as the drying out of the leaf blade on the golf green or the presence of excessive numbers of nematodes in the soil (using a microscope). The three photographic examples of extreme environmental conditions below demonstrate different sources of stress:

1. Flooding (New York)
2. Drought (Arizona) and
3. The effect of cold weather on turfgrass (Germany).



Fig 1. Flooding on the fairway of a New York golf course



Fig 2. Extreme heat stress conditions in Arizona

Fig 3. The effect of cold stress on a golf green in Hesse, Germany



Diagnosis of stress

The European Turfgrass Specialists can help you to appreciate your growing conditions more thoroughly by diagnosing any environmental or mechanical stresses that affect your golf course. We aim to identify turfgrass stress using a wide variety of modern technological equipment. This data collection is a crucial aspect of our agronomy service, which will enable us to help you by formulating an effective strategy to maintain your turfgrass around the golf course more efficiently.

We will identify different factors that influence your growing conditions and analyse any effects above or below the surface of the ground. You will then quickly begin to recognise any early signs of stress symptoms affecting your turfgrass. This is likely to lead to the prevention of problems before they take full effect, rather than carrying out reactive measures that are often inevitable when stress gets out of hand.

The European Turfgrass Specialists offer you the opportunity to collate and interpret information about your turfgrass and your growing conditions in a reliable and concise manner. Throughout Europe, many agronomists and scientists use a variety of different tools and instruments both in the Laboratory and on site to show the different conditions that affect turfgrass and their growing medium. Scientific testing represents a sound precautionary measure to undertake alongside your maintenance programme. These tests can provide excellent peace of mind that works are being undertaken correctly. We are aware that timing is everything and by identifying the effects of work in greater detail this can also represent a major cost saving and an environmentally friendly way of working.

Treatment of stress

In some circumstances your greenkeeper may be trying to “stress out” some turfgrass or “weed” for a specific reason. This approach should be monitored in a controlled and productive manner. This will enable you to achieve your aim faster and with less stress to the golfer.

Continuation of tests can potentially assist you to recognise signs and patterns in your turfgrass, which may help you to limit excess stress from occurring on your turfgrass and allow you to maintain and control your turfgrass in many beneficial ways. Additionally, by retaining historical reference data, this will assist you in forecasting long term patterns, and changes such as going through a sward composition change, which may result in entirely different readings over time.

A few examples of the benefits frequently encountered by undertaking agronomy inspections and scientific tests are demonstrated below:

- ✎ Having detailed information about the rootzones water content enables you to water the turfgrass and rootzones more accurately and efficiently.
- ✎ By knowing the temperature of the soil and the volume of sunlight that is available, you can easily recognise when to carry out certain mechanical practices.
- ✎ By providing a suitable volume of air and water in the soil, you can create a more effective growing regime.
- ✎ If you know the nutritional content in your soil properly, you can potentially start to protect the plants better from disease or unpredictable weather patterns and thus reduce fungicide applications.

Each of these examples above, represent practical and environmentally friendly methods, helping you to grow turfgrass in today’s increasingly demanding working environments. In our opinion this methodology represents a real and modern solution to greenkeepers daily concerns.

Fig 4. Heat stress being controlled successfully in Carolina

The European Turfgrass Specialists encourage you to stay ahead of your turfgrass and keep it healthy.

For more details about the European Turfgrass Specialists agronomy services please contact:

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