



IOG

DATA SHEET

SCARIFICATION

INTRODUCTION

Decaying organic matter can build up on the immediate surface of the turf, especially when the clippings are returned to the ground. This produces a thick impermeable layer which reduces the air and water intake into the soil, subsequently producing a weak sward which may be prone to the following:-

- germination of moss spores
- introduction to fungal diseases
- introduction of weed seeds

This decaying matter is called THATCH. It produces a soft spongy surface which can seriously affect the game. By removing the thatch it increases the opportunity of producing hard, fast pitches.

PREVENTION OF THATCH

The maintenance of ground should encourage the maximum amount of activity of bacteria and other micro-organisms. This will help provide a quick decomposition of thatch. Balanced applications of fertiliser and top-dressing will provide a fertile soil with a good structure.

Poor aeration and compaction of soil will result in bad drainage and reduction in bacterial activity. Avoid high nitrogen applications which give lush growth leading to an accumulation of organic matter and thatch.

CONTROL OF THATCH

Scarification is a means of removing 'Thatch' from the sward. There are two basic types of equipment available, namely hand operated (manual) and mechanical.

Manual Scarification

Manual scarification is most suited for pitch preparation in the playing season and not considered for Autumn renovation.

Mechanical Scarification

During after season renovation, mechanical scarifiers are used to remove thatch from the surface. This enables the soil to take in moisture and nutrients, it also helps to keep the surface free from moss and broad leaf weeds and weed grasses. It is important that the scarifier is set correctly, with the tines well into the surface of the soil without the machine labouring. Ensure the tines have been inspected well before the time of use.

There are two schools of thought as to the direction when scarifying, either scarify in one direction or in many directions. You should be aware that there is a possibility that the surface may lift when scarifying in many directions. Be aware of this and return to single direction should it occur.

A robust thatch removal tine should be used during the autumn renovation. Thatch removal tines are to be used for Autumn work, while the wire tines should be used in Spring. The thatch prevention tines can be used in Spring, BUT with care. The ideal items are the removal tines followed by the brush in Autumn / Winter, and the wire tines followed by the brush in Spring.

LINEAR AERATION (Surface grooving)

A recent development in turf scarification is linear aeration. This follows the same principles as thatch removal but using a more powerful machine and tungsten tip blades.

These machines can work to a depth of 50mm but it is recommended only to work to the depth of the thatch and not to bring up soil to cover the remaining thatch. 15% of the surface can be removed with each pass which is more than normal hollow tining at 50mm centres.

Linear aeration can allow improved surface levels due to the amount it removes, it is important that you have the resources to over sow and top dress after this operation.

Great care must be taken with these powerful machines as if used correctly they will destroy a surface, also you must be prepared for the amount of rubbish this operation produces.

If you would like details on any of our short courses please contact the address below.

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