

# **Dethatching:**

Your grass needs air and light to grow. Over time, especially when grass clippings are left on the lawn, a lawn thatch made up of living and dead plant matter forms. This should be removed every spring. Dethatching tears the lawn thatch away from the surface of the lawn and removes it, decimating broadleaf weeds and moss. This also improves the air and water balance and the activity of soil biota, which in turn promotes the breakdown of the remaining thatch. Sports fields should be dethatched at least once per year during the main growth period in April and May. Before dethatching, cut the grass short. The dethatching residue should be removed, after which the surface should be sanded and, if necessary, reseeded.

#### **Aerification:**

Aerification helps to reduce the effects of surface compaction and provide air to the rhizosphere. A plug aerator cuts cores from the soil to a depth of 10 cm, which must then be removed. The surface is then sanded and fertilised. For aeration to be effective, at least 200 holes/m<sup>2</sup> should be made.

# Sanding:

Sanding with washed sand (particle size 0/2 or 0/3), either on its own or in combination with dethatching or aerification, has the following advantages:

- Evens out irregularities in the surface
- Improves soil texture via soil mixing or replacement
- Increases soil permeability
- Raises shear strength

Sand is brought in and applied; application rates can be as high as 5 L/m<sup>2</sup>.

#### **Reseeding:**

Reseeding becomes necessary when gaps in a lawn surface become too large and can no longer be covered through regeneration. It can also be used to refresh the existing grass with more valuable species and varieties. Reseeding should ideally be carried out after measures such as dethatching, aerification and sanding. However, methods do exist to sow seeds in existing lawn surfaces with no preliminary work needed (e.g. perforation) When reseeding, it is recommended to use an appropriate seed mixture. The Coated Seed products have shown very good results in reseeding, with significantly higher rates of emergence.

## **Topdressing:**

Topdressing involves spreading a mixture of sand, peat, soil and fertiliser to even out surfaces and improve the nutrient supply. The practice is especially popular on golf courses (greens and pre-greens). The sand must be limefree and match the particle size of the existing base layer. The best time for topdressing is in autumn, up to the end of September. Prior to topdressing, the ground should be aerated as appropriate.

If none of these measures are successful, larger-scale interventions will be needed to restore the lawn. These can include:

- Slicing
- Slit drainage
- Deep soil loosening

## Slicing:

Slicing involves using a machine that digs around 100 slits/m<sup>2</sup>, at a distance of about 8 cm, measuring up to 10 cm deep, 10-15 cm long, and 1 cm wide. Cracks emerge around the slits, which help to even out the surface, as well as loosen and aerate the soil. This process also leads to uneven patches that can be eliminated using sanding and added soil.

### Slit drainage:

Slit drainage uses special equipment to mill slits into the soil, which reach down to the drainage system or more permeable layers. At the same time, the slits are filled with a permeable material (sand, lava rocks, expanded clay). The excavated material must be removed. The width, depth and spacing of the slits can vary. The goal is to improve the soil's aeration and allow water to flow away more quickly.

# Deep soil loosening:

Deep soil loosening makes it possible to eliminate soil compaction and impermeable layers at depths of 6-15 cm or even deeper (up to 25 cm!). Special equipment is used to bore trenches or holes and loosen the surrounding area at the same time. The resulting openings are then filled with permeable building material.



Where, when and which measures are necessary or appropriate can only be determined in the field based on an analysis of the site and soil. This requires specialist advice, which you can get by using our consulting service.