

# Pro Lawn (Scotland) Ltd

The Lawn Experts.....

## Shallow Roots

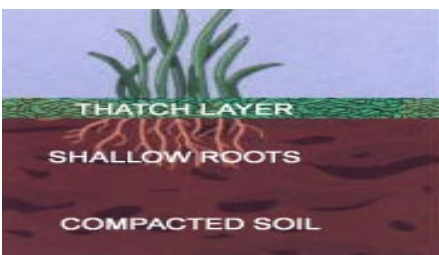
A shallow root system causes the grass to suffer more from heat and cold damage, enabling the roots to come to the surface to get water and in turn stresses the grass. The roots then die and trap other debris and this is what is known as a build up of thatch.

Although lawns may look healthy and green at the tips, as you look further down the stock, the foliage and sward will be brown and weak. This will be more apparent when the grass has just been cut and the shallow roots are exposed. Your lawnmower may appear to dig in or rip the grass out as there is not enough resistance from the roots and this will leave unsightly brown patches on the lawn.

Shallow roots are caused by a number of factors:- poor cutting practices, compaction, and thatch build up.



*Stressed grass caused by a shallow root system*



*Problems stemming from shallow rooting*

### **How does the thatch in my lawn affect the roots?**

Too much thatch build up makes the lawn very spongy underfoot meaning that there is no room for grass to grow. The thatch layer competes with the grass itself causing it to thin out and become weak. Water is then prevented from getting to the roots, causing them to turn upward looking for moisture and permitting them to grow within the thatch.

### **Do my cutting practices have an impact?**

Yes. It is important that good mowing practices are put in place as this is often overlooked. Cutting has a major part to play in the outcome of your lawn as it leads to a denser sward, even growth, and improves the overall appearance of your lawn. Lawns require mowers to be adjusted to the correct height and cut regularly with sharp blades. Grass which is left to grow too long, cut too short, or with clippings left on the lawn can all lead to a thatch build up and ultimately shallow roots.

### **How can fertilisers play their part?**

Regular fertilising is important however non-professionals can overfeed a lawn and cause the roots to stay on the surface and they will be unable to make their way down into the soil to look for nutrients. They require to be maintained by a professional feeding and maintenance programme in order to stay strong and healthy.

### **How can I rectify shallow roots?**

Removal of the thatch layer is paramount to allow grass roots to penetrate back down into the soil where they belong. This is done by a process called scarification. Once scarification has been carried out, solid/hollow tine aeration is recommended to allow air to circulate around the roots and provide space for them to grow.

The use of a Growth Regulator is also recommended as it works by redirecting plant growth by inhibiting vertical growth and diverting plant growth downward into the root system to produce increased lateral stem movement. This results in a thicker, healthier sward that better equips turf to withstand temperature extremes, moisture loss, traffic and wear, and even helps in the management of *Poa annua*.

A regular supply of water is also required. Too little can leave your lawn susceptible to disease and shallow rooting, too much will cause a build up of thatch, leaching of fertilisers, nutrients, disease and weeds.