

Inspiring farmers to safeguard soils

PROSOILplus supports farmers to work together to develop innovative soil management practices. These innovative practices are linked to IBERS research activities for scientific validation.

The research activities carried out at IBERS in Aberystwyth focus on a number of areas linked to the management of soil. These include:

- Improving carbon stocks in Welsh soils
- Reducing water surface run-off and risk of flooding
- Maintaining production whilst protecting the Welsh landscape

Factsheet 3

Water Infiltration



What is water infiltration?

- Water infiltration measures the rate by which rainwater soaks into and through soil
- Water absorbed by the soil may get absorbed by plant roots or pass through the upper layers of soil down towards the water table

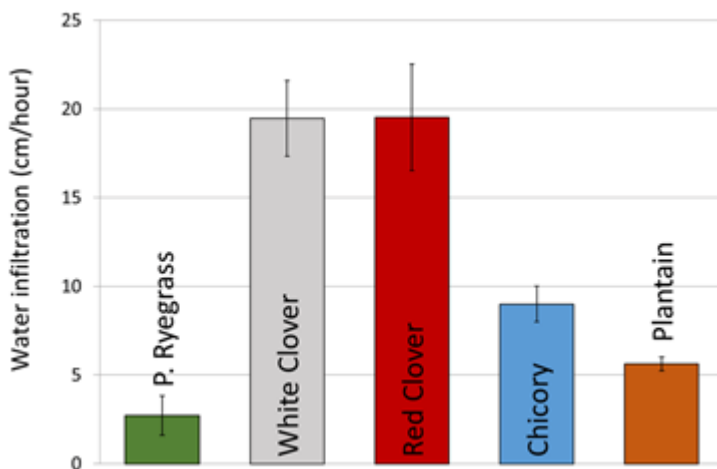
Why do we need to think about water infiltration?

- Water infiltration rates are a good indicator of soil health.

- Soils that are unable to absorb high rainfall events lead to surface run off and loss of soil and nutrients into water courses
- Wet soils limit the opportunities for grazing and shorten the grazing season
- With increasing high rainfall events, increasing the water holding capacity of Welsh soils will be required to help tackle climate change

What have the PROSOILplus project results shown to-date?

- Plots of red and white clover have significantly higher rates of water infiltration compared with ryegrass
- Plots of Chicory and Plantain have higher rates of water infiltration compared with ryegrass



What can I do on my own farm?

- Check soils for compaction – based on the depth there are various mechanical solutions including pasture slitters and sward lifters
- Check soils for earthworm numbers – earthworms are natural soil aerators as they burrow through the soil profile
- Maximise the use of red and white clovers
- Consider using more mixed species leys