

Shared equipment for farmers St. John's Beck catchment

Shared soil aerator and sward lifter

One of the key objectives of the Defra NFM project is to decrease surface run-off by reducing soil compaction and improving soil structure. The project has funded the purchase of a 2.5m Aerworx soil aerator and a 2.7m Opico 3-legged sward lifter, which are shared by farmers in the catchment and used to improve the land by mechanically loosening compacted grassland soils.

The use of a sward lifter, sward slitter and/or soil aerator is known to reduce soil compaction and increase the infiltration capacity of the soil when used in the right place and the right way. Well-structured soils are very important for the farm business as they allow infiltration and storage of nutrients, air and water, and promote good root development and penetration, thus increasing land productivity. It will also increase the capacity of the land to store water, reducing run-off during periods of heavy rain which can lead to flooding. This also ensures that nutrients from fertilisers and the soil itself are less likely to be lost through surface runoff.



Always take a spade to a few spots in your field before using the machinery (and costly fuel!) to see if your fields are compacted and by what depth.

The soil aerator

This allows shallow (~10cm) compaction to be alleviated using a drum barrel with shallow tines welded onto it, which should be towable by most tractors in the catchment. The weight of the machine can be varied by how much water is put into the drum. The drum has baffle plates to help increase stability when the drum is full of water and moving across uneven slopes. The aerator also has a road lighting plate and floatation tyres to aid movement around wet fields.



The Aerworx aerator. Doesn't look so shiny any more...

The sward lifter

The sward lifter is much larger in weight and width - with the legs going much deeper into the ground. Please check the specification of the machinery and your tractor before moving it. It is generally used for compaction at much greater depths (~30cm-40cm) than the soil aerator.



The Opico sward lifter.



Using the equipment

The equipment is free for farmers and landowners in the Glenderamackin catchment to use. All we ask is the following:

- All users perform basic maintenance checks, complete the user log book, leave it 'clean' and promptly return it to the storage location under the terms of the agreement.
- All users become familiar with the equipment manuals (stored with the equipment but a copy of this can also be found on the website links above).
- Use of the equipment is free but costs of maintenance and wear and tear will be shared amongst the users based on use.

Please get in touch with clair@westcumbriariverstrust.org if you are a farmer or landowner in the Glenderamackin catchment and you wish to use the soil aerator or the sward lifter for the first time.