

Repairing soils after flooding

27 May 2014, Dairy Plot Farm, Somerset

At the end of May, DairyCo and EBLEX ran an event at Dairy Plot Farm in Somerset, focusing on how to get land back in order after heavy flooding.

The meeting was hosted by dairy farmer Mr Hubbard and his family, who experienced the worst flooding they had ever known last winter, with up to five feet of standing water at its peak.

Independent soil and grassland management consultant, Chris Duller led the day.

First steps

The first step is to regain control of the situation from a feed point of view, by calculating how much forage is needed to get through the summer and next winter. This can be done by using stock numbers and weights to estimate total feed demand over the coming months.

Then find out how much forage is currently available. This can be done by walking the fields and measuring how much there is using a plate meter. Or yields can be estimated from information from previous years – although care is needed when referring to past performance, as yields and quality may be down due to the flooding damage.

Once supply and demand has been estimated and it is clear that feed supply is lower than required, decisions can be made on how to make up the shortfall. For example reducing stock numbers by bringing in fewer replacements, culling harder, buying in feed or sowing new crops.

The Hubbards have sown westerwolds (annual ryegrass) on fields that have suffered the worst flooding, while the area of maize has been increased on land that was never under water.

Taking remedial action

The level of forage shortfall will influence the actions taken to improve soil structure.



It is important to dig holes to understand what is happening in each field. Look for rooting depth and how easy the soil falls apart, count worms, check the colour and smell, and look for compacted layers.

It is worth repeating the process for different fields and areas within fields. Use the EBLEX [Grass MOT](#) to record what is found.

Chris also pointed out that even soils waterlogged for long periods of time will eventually recover and the worms will come back, providing they are given sufficient time. Some practices, such as using sward lifters, aerators or mole ploughs, can speed up the process, but if done incorrectly can slow it down.

These actions must only be taken in appropriate soil conditions and at the right time. The best time to remedy deep compaction is in the autumn.

Preventing erosion

If vegetation cover has been reduced dramatically, it is important to get something growing (even weeds), to help reduce the risk of run-off and sediment loss and lessen any potential on-going environmental concerns.

It may be worth thinking about growing crops in future that can cope better in challenging situations. For example, crops with good rooting systems such as lucerne and chicory, as they may be more able to withstand flooding better.

For more information see the EBLEX BRP document, [Better Returns from Flood Awareness](#), or the manual [Improving Soils for Better Returns](#)