



Catch crops and cover crop for soil health



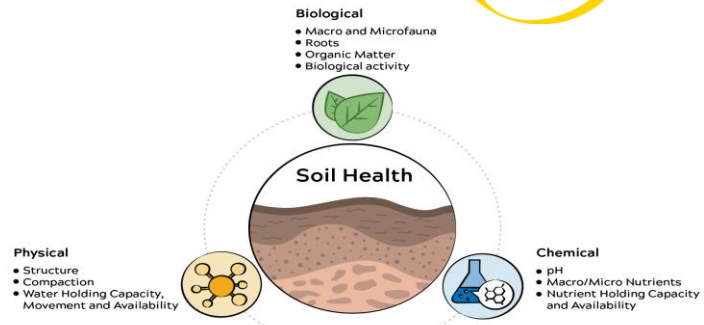
Anglian Water are working with the [Lincoln Institute for Agri-Food Technology](#) and farmer, Alex Jasinski, near Grantham to look at **catch crops within the arable rotation**. This research is supported by [Innovative Farmers](#), a programme that gives farmers research support and funding on their own terms. The trial will look at a **novel way to sow catch crops in advance of harvest** of the current crop, and **assess the wider benefits on soil health**, compared to leaving land bare or a standard cover crop. This is important to Anglian Water, as a **healthy soil**, leads to a **healthy crop**, which then requires less inputs (pesticides and nutrients) and so leads to **better water quality**.

Anglian Water is undertaking a whole programme of work focusing on **working with farmers to improve soil health**. This has been approached by looking at soil health **from three main aspects; biological soil health, chemical soil health and physical soil health**

To date, we have carried out **soil sampling across our catchments** to get a **baseline indication of soil chemical health**, with further tests focusing on soil biology and soil structure to come.

This trial will tie into this **Healthy Soil, Healthy Crop, Healthy Water strategy** by assessing the benefits of catch crops on soil health. This will be looked at by assessing:

1. **Soil structure** via the industry standard VESS scoring system
2. **Soil biological health** via Solvita testing (laboratory testing) plus earthworm counts, following AHDB earthworm sampling methodology as devised by Dr. Jackie Stroud
3. **Soil chemical health**- via laboratory testing.



Carbon and respiration tests will be carried out on the soil samples. This gives an indication of **microbial activity in the soil**, with a **biologically healthier soil having higher microbial activity**.

A novel aspect of this Innovative Farmers Field Lab is that we will be measuring decomposition rates in the soil. Special teabags will be buried in each of the treatment areas (control, cover crop and catch crop) in order to measure how much microbial decomposition has been taking place over a set time interval. This ties into a **global citizen science** project called [‘Teatime4Science’](#) focusing on **measuring soil microbial activity** in an easy to understand and low cost way with the aim to collect data on decay rates from all over the **world to create a global soil map**.

Other measurements include catch crop and cover crop establishment %, weed levels, catch crop biomass and soil mineral nitrogen. They will also assess whether the **catch crop delivers the same soil health outcomes in a shorter period (2-3 months) than winter cover crops**.

The baseline measurements were taken in mid-July and the catch crop was sown in late July into a standing vining pea crop, comparing drilled conventionally catch crops, broadcast catch crop using a modified sprayer and control area. Ongoing assessments will be undertaken by the University of Lincoln and Anglian Water and **results tweeted at @AWCoast&Country, @LIAT and @IFarmers**.

For more information please contact:
Rebecca Carter, Anglian Water
Catchment Advisor

Email: rcarter2@anglianwater.co.uk



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