



The year seems to be flying by – here we are in April with days getting longer and buds on the trees. As farmers you are all likely to be more in tune than most of the population to the changing seasons, and aware of our dependence on it. The reliability of seasonal change and weather systems is what allowed our nomadic ancestors to settle and become farmers millenia ago.

However, we are all becoming familiar with stories of unusual weather patterns and the looming Climate Emergency. Just like all other sectors, agriculture has a part to play in trying to halt this change. With the trial and implementation of ELMS not far away plus the ever present gaze of the media, we have plenty of incentives to take a proactive approach. Ed, Grace and Kat recently held our first Sustainable Farming meeting, where we were joined by Becky Willson from the Farm Carbon Toolkit. She has developed the Farm Carbon Calculator (please see <https://calculator.farmcarbontoolkit.org.uk/> if interested) and gave a great introduction to the topic. The plan now for those who joined us is to go away and carry out the calculator on their own farms. We will reconvene with another meeting from Becky on 6/5/21 at 7pm (put it in your diaries!) to do some troubleshooting and address any difficulties anyone had. Please do get in touch should you wish to join us at the next meeting, or equally if you are interested in watching the recording of the last one.

There are obviously a huge number of Carbon 'outputs' on a farm. From diesel and concrete to animal feed and slurry. But farming as a sector is unique in that it is also able to offset carbon emissions. Hedgerows, trees, grass and soil itself can all be carbon sinks, but how we manage them is key to maximizing this potential. The Farm Carbon Calculator takes these sinks into account, so your overall picture is not just made up of your outputs, but also what you are storing away. The calculator guides you through all of these, and while hedgerows, trees and grassland may be relatively easy to quickly assess visually (biodiversity, number, age, variety of species, height etc) how your soil is performing may be a bit more of a mystery. There are several simple soil tests you can do to get a grasp of whether your soil is acting as a good Carbon sink:

### 1. VESS (Visual Evaluation of Soil Structure)

This gives an idea of whether the soil structure is adequate. Too compacted results in poor root penetration. Water availability and aeration will also be affected.

Extract a soil block using the spade, approximately one spade's width and depth. Examine the soil block for structure and score using the VESS scorecard (see

[https://www.sruc.ac.uk/info/120625/visual\\_evaluation\\_of\\_soil\\_structure](https://www.sruc.ac.uk/info/120625/visual_evaluation_of_soil_structure)) Record the score for the top soil and the subsoil. You are aiming for a score of 1-3. 4-5 requires management change.



### 2. Aggregate stability

Using the same soil block from the VESS test, take a fistful of soil and place in a labelled jar. Once at home, remove the lids and allow to dry for 5 days (airing cupboard or warm place).

Once the samples are air dried place a clod into rainwater and score after 5 minutes, using the Aggregate stability scoring system below. Repeat at two hours:

0 if the lump remains intact

1 if the lump collapses around the edges but remains largely intact

2 if the lump collapses into angular pieces,

3 if the lump collapses into small rounded pieces, forming a cone,

4 if the lump completely collapses into single grains.

You are aiming for a low scoring soil, as carbon and organic matter act as a 'glue' binding soil together.

### 3. Worm count

Worms give a general overview of soil health as they survive best in soil that is not waterlogged, not too compact, well aerated and has good organic matter levels. Using the same soil block from the previous tests, sort through the soil and pick out the worms you find. Identify the juveniles and return them to the pit (See online AHDB “How to count Earthworms” to help with ID) Count only the adults, and use the AHDB worm sheet to identify what type they are. Different worms indicate different aspects of soil health. Use the worm recording sheet to make a note of what you found and where (<https://media.ahdb.org.uk/media/Default/Imported%20Publication%20Docs/Earthworm%20recording%20sheet.pdf>)



### 4. Infiltration test

Soil which is really porous is healthy as it is well aerated. The more porous the soil, the faster water will drain into all the spaces:  
Insert a cylinder (can with top and bottom removed) into the soil (may need a hammer and wooden block) to about half way up (around 3 inches).  
Measure out 107ml of rainwater and gently pour it into the cylinder. Start a stopwatch.  
Time how long it takes for the water to infiltrate - stop the stopwatch when the soil glistens (but water has gone).

### 5. Biological Activity (the Pants test)

Possibly the most well known thanks to the “Soil my Undies” campaign...

Degradation of a pair of cotton underwear will happen in soil with a healthy microbiome. Using the soil pit you dug for the VESS test, place a pair of 100% cotton pants in the pit. Ensure the pants are spread wide, not scrunched up at the bottom. Fill in the pit and mark the location. Return in three months to dig up the pants and check the degradation.

Healthy soil will have lots of microbes that will break down the pants and create holes in them. Unhealthy soil won't have the important microbial communities and the pants will remain intact.



All the above are best done at 3 locations per field, which in an ideal world could be data logged so the tests can be repeated in the future and are comparable.

Should you wish to have a go at the above and want any further info or advice, please get in touch with Grace, Ed or Kat at the practice.

**Kexxtone bolus** - highly toxic to dogs – please be aware as cases of farm dogs eating regurgitated ones have been reported. There have been fatalities as a result.

**Herd Health Plans** – a really valuable opportunity to sit down with your vet and go through problems/plans for the year ahead. To get the most out of it, it's really important to give us as much notice as possible so we have time to sit down and go through your figures. A week's notice minimum would be much appreciated.

**Have a very Happy Easter from all of us at The George – we hope to see you at one of our meetings soon! (Please see overleaf for calendar of events.) Best wishes from Grace.**



**Upcoming meetings:**

**Thursday 8<sup>th</sup> April 7pm - Dairy Youngstock care run by Kat. (Free)**

With more supermarkets focusing on youngstock care and mortality targets now the norm, this will be a timely discussion on colostrum management and total protein results, using benchmarking data previously collected.

**Tuesday 13<sup>th</sup> April 2pm – Mobility Short course run by Bea. (£35)**

Foot trimming and treatments are only part of the story, prevention is key, discussion will be centered on foot bathing options, cow comfort and flow.

**Monday 26<sup>th</sup> April 7:30pm – Dairy Block calving benchmarking run by Gethin. (Free)**

What are the targets for a block calving herd? Hints and tips for how to achieve them, including using benchmarking data.

**Wednesday 28<sup>th</sup> April 2pm – Beef Calf Rearing run by Kat. (£35)**

The first 24 hours after arrival are key to getting these calves off to a good start. Nutrition and environment play a huge part. Vaccinations and why we give them will also be covered.

**Thursday 6<sup>th</sup> May 7pm – Sustainable Farming; Carbon Calculator troubleshooting meeting run by Grace and Ed with guest Becky Willson. (Free)**

Following our first meeting in March where we were introduced to the Carbon Calculator by Becky, we look forward to discussing everyone's progress with it and for Becky to do some troubleshooting and offer further guidance. (NB, if you missed the first meeting but would like to attend please get in touch!)

All above meetings are via Zoom. As usual please get in touch by phoning the practice on 01666 823035 or emailing [farm@georgevetgroup.co.uk](mailto:farm@georgevetgroup.co.uk) for any more information or to book a space.