



# Nene and Welland CSF Catchment Partnership Autumn 2016 Newsletter

Welcome to the autumn edition of the Nene and Welland CSF newsletter, which we hope will keep you up to date on the latest news in the catchment. I hope you have been enjoying the summer months and you find this newsletter interesting and informative. I look forward to speaking to you or meeting you soon ~ Georgina Wallis, Catchment Sensitive Farming Officer.



**A clear solution  
for farmers**  
CATCHMENT SENSITIVE FARMING

## Local news and events

### **Recap: Soil Management with Philip Wright 20th July 2016**

Farmers, students and advisers from across the Nene and Welland catchments gathered at The Willow Brook Farm Shop, Helpston Heath to discuss all things soil management.

A range of topics were discussed, including visual indicators of good and bad soil structure, and how to prevent structural damage. Remedial options for compaction reduction, cover crops and the benefits of getting roots down were covered in detail. A short summary of Philip's presentations can be found on the River Nene Regional Park website by following the link below:

<http://www.riverneneregionalpark.org/publications/brochures-downloads/csf/cultivations-soil-structure-csf-helpston-2016.pdf>

Also speaking at the event was Dr Felicity Crotty, Soil Scientist at the Game and Wildlife Conservation Trust's Allerton Project at Loddington. Felicity shared results of recent studies showing the benefits that different cover crops had on soil health. Felicity also explained the key factors affecting earthworm distribution, including vegetation cover, soil moisture and pH. She demonstrated the benefits of having good soil biology, and the benefits that earthworms can bring to soil health. You can find an article by Felicity later in this newsletter.

For more information on Catchment Sensitive Farming, or to suggest topics for upcoming events, please contact

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Please let us know what we can do to improve our communications with you.

your local Catchment Sensitive Farming Officer, Georgina Wallis using the details in the useful contacts section.

### **Countryside Stewardship (CS) Visits Take Off**

The 2016 round for Mid-Tier Countryside Stewardship opened for applications in March of this year and since then farmers from across both catchments have engaged with local Catchment Sensitive Farming Officer Georgina Wallis to discuss their stewardship plans. The benefit to farmers who engage with their CSFO on plans include the opportunity to uplift their stewardship score through endorsement, meaning their application is more likely to be successful. It also opens the door to options requiring CSFO endorsement, including concrete yard renewals and sprayer loading and washdown areas, to name a few. The application period for Countryside Stewardship closed on 30<sup>th</sup> September, but if you are due to expire from ELS/HLS later in the year or in 2017 and would like a free of charge, no obligation chat with your local officer, please call Georgina Wallis using the details adjacent.

### **Welcome East Midlands FWAG**

For over forty years, the Farming and Wildlife Advisory Group (FWAG) has helped farmers to integrate wildlife friendly agricultural practices into their commercial farming businesses.

The aims of the group are as relevant now as they were then and now, and three former Farming and Wildlife Advisory Group advisers have joined forces to form East Midlands FWAG.

Part of the national FWAG Association, the new organisation will provide independent environmental advice to farmers across the East Midlands as well as holding events, conservation competitions and offering a farmer membership scheme.

East Midlands FWAG will be organising farm walks across the region and has just launched its membership scheme. To find out more, visit the website:  
[www.eastmidlandsfwag.co.uk](http://www.eastmidlandsfwag.co.uk)

### **One month left to get your pesticide application equipment inspected**

By 26 November 2016, all in-use pesticide-application equipment over five years old – with the exception of knapsack and handheld sprayers – must have passed inspection by the National Sprayer Testing Scheme (NSTS) within the last five years. The NSTS is the only body designated to inspect and certify pesticide application equipment for use. The only way to stay compliant is to have your equipment tested by an approved NSTS examiner. See more on the National Sprayer Testing Scheme Website: <http://www.nsts.org.uk/>.

## **Forthcoming CSF Events Near you:**

CSF will be running a series of FREE events over the autumn and winter. Keep an eye out for invites in the post. Booking is essential for all events – please contact Georgina Wallis to book your place.

- **Friday 2<sup>nd</sup> December 2016** – Sustainable farming to get the most from organic materials including organic manures, sewage sludge & digestate deployments. Glooston Village Hall, Glooston, Market Harborough LE16 7ST.
- **December 2016** – Pesticide Management including LERAPS & new rules. Two events to be held near Market Harborough & Brigstock
- **February 2017** – Soil Biology & Fertility.

## **Focus on Cross Compliance**

A Cross Compliance update for Farm Advisers in July provided a useful update to pass on to farmers within the catchments. The event benefited from speakers including the Farming Advice Service, Campaign for the Farmed Environment, The Environment Agency and the Rural Payments Agency. Key failure points of inspections were raised, with Cattle TB test records at the top of the list, with a 50% failure rate if inspected. In relation to water quality, not having an adequate 2m wide buffer strips along water courses caused 11.1% of those inspected to fail. Similarly, NVZ record failures accounted for 29.4% of failures.

Attendees were reminded to ensure customers were protecting your boundaries, remembering the 2metres required is only a minimum – a number of farmers have been fined due to spray drift, causing yellowing of the grass buffer strip, resulting in less than 2metres of grass cover. Cross compliance field margins are established to protect hedgerows and watercourses against pollution and runoff from agricultural sources by taking all reasonable steps to maintain a green cover. Field margins should measure 2 metres from the centre of the hedgerow or from the centre of a watercourse or field ditch, or 1 metre from the edge of the watercourse or field ditch to the landward side of the top of the bank. You must not cultivate or apply fertilisers or pesticides to cross compliance field margins, but you are permitted to 'top' the green cover or use pesticides for spot application if they are deemed reasonable steps to control the spread of any weeds. Full information on grass margins can be found here:

<https://www.gov.uk/guidance/guide-to-cross-compliance-in-england-2016>

Inspection Policy Adviser Richard Anderson went on to tell us that there are roughly 800 inspections per year, and reminded us that these inspections can be

## Why are Earthworms Important In Agriculture?

Earthworms improve soil structure by pulling organic matter down into the soil, mixing soil and creating tunnels that improve drainage and aeration of soil. In fact, it has been estimated that 93% of all water infiltration that occurs is due to earthworm burrows. A well aerated soil, allows the earthworm's movement to acts as a piston, forcing air deeper into the soil, increasing drainage, and nutrient uptake. Worm casts are also rich in recycled plant nutrients. Fresh worm casts can hold as much as 5x more accessible nitrogen, 7x more accessible phosphorous and 11x more accessible potash than the surrounding top soils. However, the organic matter content of the soil is a large indicator of earthworm numbers, with soil that are low in organic matter having depleted earthworm numbers. Compaction in soils can actually stimulate casting activity by the worm population, but heavily compacted soils limit the earthworm's ability to burrow, compounding compaction issues



It's estimated that there are around 3000 different species of earthworms globally, with 27 species in the UK. These are separated into three common functional groups: Surface dwelling (epigeic), horizontal burrowing (endogeic) and vertical burrowing (anecic). Each of these three functional groups have different roles within the soil profile. The Surface dwellers live on top of the soil surface, eating dying plant material, they reproduce rapidly but have short lives. The Horizontal burrowers live in the top 20-30cm of soil and actually eat the soil itself (in significant volumes) as well as decaying organic matter. These burrowers move through the soil, ingesting it as they go, creating a branched horizontal burrowing system, mixing the top soil layer up. Horizontal burrowers also reproduce rapidly and can live up to five years.

The Vertical burrowing species (sometimes referred to as nightcrawlers, deep burrowers or subsoil dwellers) create large permanent vertical burrows down to 2 metres deep in the soil profile. These vertical burrowers travel to the surface to find dying plant material and then pull it down their burrows where it starts decomposing prior to being eaten. These large earthworms have a long lifecycle and can live up to 10 years in the soil. Their populations are heavily influenced by tillage, which destroys their

unannounced, or with no more than 48 hours' notice and emphasised the need to have reliable records for this reason.

If you would like a friendly talk on Cross Compliance, please call Georgina Wallis. More information is available online at [www.gov.uk/guidance/cross-compliance-inspections](http://www.gov.uk/guidance/cross-compliance-inspections).

## CSF National News

### 10 years of CSF

Catchment Sensitive Farming is pleased to announce it has reached its 10th anniversary and to date has delivered advice to around 19,300 farm holdings covering 2.6 million hectares of land.

Over the last 10 years the project, run in partnership with Defra and Environment Agency, has helped the environment by working with you to reduce Diffuse Water Pollution from Agriculture. We value our stakeholders' support and would like to extend our thanks to all those we have worked with over the past 10 years to improve water quality in England.

### What have we achieved?

- 85% of farmers working with CSF on 1:1 basis indicate the project increases the priority given to water pollution
- 92% of farmers were satisfied with advice received (from 1:1 advice)
- 70% of farmers have trust and confidence in the project's effectiveness in tackling water pollution (based on those receiving 1:1 advice)
- CSF has contributed to a 50% reduction in pesticides in our rivers
- Improved ecological status of rivers resulting from reduced sediment pressures
- Significant wider natural capital benefits, especially fisheries, soil quality, air quality, floods/ erosion, climate regulation and water supply

We are working to develop our plans for the next phase of work through to 2021. Farmers interested in our advice and the Countryside Stewardship schemes should look on our mapping system, [MAGIC](#), to see if they are in a priority area. If eligible, then please visit [our CSF page](#) and our [Countryside Stewardship page](#) for details on how to apply.

If you haven't previously engaged with CSF but would like to know how we can help you, please don't hesitate to get in contact using the details above.

permanent burrows as well as damaging the worms themselves.

At the Allerton project we have been studying how agricultural management and rotation effect earthworm numbers. An example, is our cover crop research for Defra's Sustainable Intensification research Platform (SIP) initiative. Cover crops are promoted as a way of combatting adverse weather conditions, soil erosion, and blackgrass; but when utilised they also provide a green cover throughout the year to the land, increase organic matter in the soil and provide food for earthworms all year round. We are starting to see a link between cover crops and earthworm populations within the soil. Specifically surface dwelling species have been found at the Allerton project in greater numbers in cover crop mixes in comparison to where the ground has been left as bare uncultivated stubble over the winter – which may have implications for organic matter breakdown and the structure of the soil itself in the long term. Another example, is the effect no-till or reduced till systems have on earthworm numbers. We have seen that earthworm numbers increase as the amount the soil is disturbed is



reduced (i.e. reduction in ploughing and increasing direct drill). In no-till systems earthworms become the "plough" creating pores (or numerous sizes) which act as passageways for nutrients and water to move through the soil profile, increasing soil aeration, and providing routes of uncompacted soil for roots to travel through – increasing plant yields. Earthworms are known to play a central role in soil health and may even influence crop yields, it has been estimated that finding 400 earthworms per m<sup>2</sup> or just 16 per spade-full, is representative of a "healthy soil" and should be something all farmers aim towards.

~ Dr. Felicity Crotty, Soil Scientist Game & Wildlife Conservation Trust.

### Your soil

Check out [www.soilquality.org.au](http://www.soilquality.org.au). If you would like to be involved in a similar initiative in the UK, please contact Prof. Chris Stoate at [cstoate@gwct.org.uk](mailto:cstoate@gwct.org.uk)

## Five Ways CSF Can Help you in 2017

- 1) Take advantage of our free specialist advice visits to help you plan your farm management. Topics include slurry & manure handling, soil husbandry, machinery testing and calibration, pesticide handling and application and farm infrastructure review.
- 2) Receive CSF support on Countryside Stewardship - bespoke, individual guidance on the best implementation of Items/Options to help you make farm infrastructure changes that improve water quality
- 3) Get access to limited options only available with CSFO endorsement, including Concrete Yard Renewal, Sprayer Loading & Washdown Areas, Underground Drainage Pipework, Biobeds & Livestock and Machinery Hardcore Tracks, to name a few
- 4) Attend free specialist events from a range of well recognised speakers on topics of interest to local farmers
- 5) Discuss issues you may be facing on your farm with the confidence of upmost privacy and professionalism from your CSFO

### Useful contacts

#### Your local CSF Team

##### Georgina Wallis, CSFO

07921 941734/ 01536 526438. Email: [georgina@mrp.org](mailto:georgina@mrp.org)

##### Jo Gass, Senior Environment Officer

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