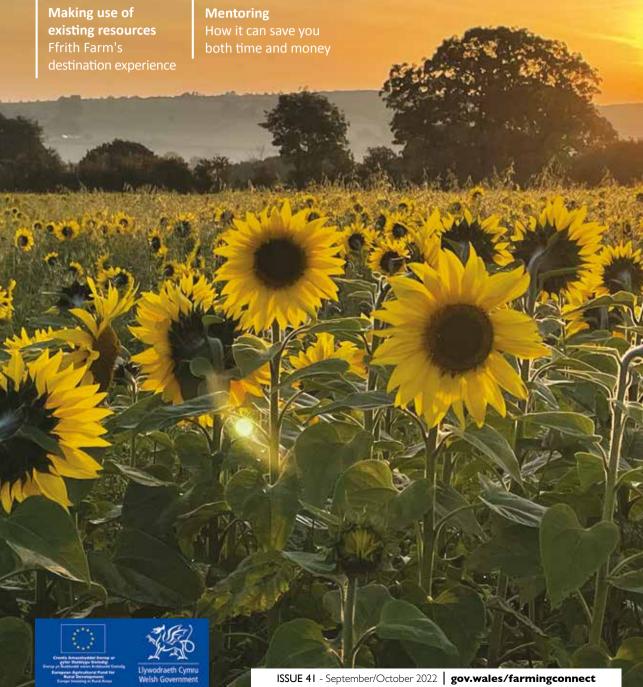
THE MAGAZINE FOR FARMING & FORESTRY IN WALES

FARMING connect



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Cefngwilgy - The value of clover

At Cefngwilgy Fawr demonstration site, a project was created to improve the quality of homegrown feed by introducing white and red clover into the grazing and cutting swards.

A total of II acres was ploughed and reseeded in May 2020. A six-acre field was seeded with a long-term grazing mixture; one acre of the field had a no-clover mix, 2.5 acres had white clover at 1kg/acre, and 2.5 acres had white clover at 2kg/acre.

A five-acre field was also reseeded with a medium-term grass mixture – four acres of the field included 3kg of red clover, with one acre as a no-clover control.

A very dry spring in 2020 resulted in very poor establishment, with the new swards being very patchy and weedy. Clover levels weren't as high as hoped for (less than 10% of the sward), so the leys were overseeded with clover (direct drill) at the end of June 2021, to try to boost clover content.

The reseeded fields were monitored through August, September and October 2021 to assess dry matter production and clover contents.

Table I: Mean daily grass growth rates (kgDM/ha/day) and total production for 90 days

	Control (perm pasture, no clover)	Red clover ley	White clover ley
Aug	34	67	61
Sept	20	30	41
Oct	12	28	26
Total DM /ha (90 days)	2026	3845	3927

The additional I800kgDM/ha grown through the three months on the reseeds equates to an extra I000 ewe grazing days/ha. Over the whole II acres of reseeds (4.4ha), that's enough grass to carry an additional 49 ewes.

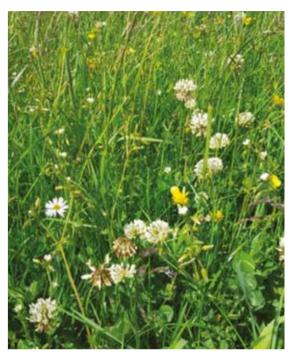
With the current value of grass (energy and protein) being over £250/tDM, it means that around 70% of the reseeding costs have been recovered by extra grass production in the establishment year.

Sward separations found 35% of the sward dry matter to be red clover, although the red clover was very patchy across the field. The white clover in the swards was much lower – at only 6% of the dry matter – and there was no difference in sward clover contents resulting from the $1 \, \text{kg}$ or $2 \, \text{kg/acre}$ inclusion.

The white clover would not impact significantly on feed value at 6% content – or contribute significantly to the fixation of nitrogen (N).

Following overseeding in June 2021, there was a slight improvement in the white clover levels – but the field remains very patchy. Some areas have risen to 30% clover in the sward, but a good part of the field is still below 5%.

Clover must be present at 20% content or more to have an impact on forage quality. At this level, lamb growth rates can increase by 25%, and cattle growth rates by 10%, compared to a grass-only sward, due to clover swards being higher in quality and more digestible, which leads to higher intakes. When at least 30% clover is present in the ley, research by the Agri-food and Biosciences Institute has shown that clover can fix up to around 150kg of nitrogen per hectare (equivalent to almost 4.5cwt of 27%N /acre) under ideal growing conditions. This may be difficult to achieve in all farm conditions, but it could provide significant cost savings and a major environmental benefit if achieved.



White clover levels remain patchy, despite overseeding

TEN TOP TIPS

- I. Timing is important if overseeding in autumn, mid-September should be the absolute cut-off point.
- **2.** If the sward has a build-up of thatch or creeping bent, remove this a year before overseeding.
- **3.** When the seed is drilled, there should be moisture in the soil and rain in the forecast.
- 4. Select the right drill for the job, as a heavy drill can sow seed too deeply – clover should not be drilled deeper than 1 cm.
- **5.** White clover can be sown at a rate of 1-2kg/acre, and red clover at 3kg/acre.
- **6.** Avoid sowing large-leaf varieties of clover in all but dairy systems, as these have a poorer survival rate than medium-leaf clovers.

- 7. Care must be taken in how clover is managed in the eight weeks after sowing: graze for a day, but only enough to take off the top inch and a half. Graze again two weeks later in a similar way, to stop the grass from shading out the young clover plants. After that, it can be grazed a bit harder:
- 8. Avoid stocking heavily over the winter, or it will disappear. Red clover will not persist if continuously grazed, due to a combination of excessive foliage removal and plant crown damage by hoof trampling.
- **9.** Soils need to be at a pH minimum of 6 for clover to fix nitrogen.
- **10.** P (phosphate) and K (potash) also need to be at the right levels (soil P index a high 2 and soil K index 2+).

Llwynmendy - Focus Site

Focus Site: Llwynmendy, Llandeilo, Carmarthenshire

Technical Officer: Gwenan Evans

Project Title: Correlation between earthworms and soil health, in addition to evaluating bokashi (fermenting organic matter)

Project Objectives:

- Determine the overall soil health of all fields
- Detect where there is any correlation between worm numbers, grass growth and nitrogen application
- Evaluating the benefits of bokashi

Background:

Soil health is fundamental for sustainable farming. Research has shown that a fresh worm

cast can hold as much as five times more accessible nitrogen, seven times more accessible phosphorous, and I I times more accessible potash, than the surrounding top soils. Under ideal conditions, a healthy earthworm population can process around 12 tonnes of soil and organic matter in a year. Earthworms play a critical role in mixing and aggregating surface leaf litter with soil, as well as improving soil structure and

Healthy earthworm activity results in:

microbial decomposition of organic matter.

- Improved nutrient availability
- Improved drainage
- Improved soil structure
- Improved productivity

Introduction:

The overarching aim of the project will be to determine the soil health in the context of worm numbers and soil organic matter.

During this project, we will be assessing the soil health of all grazing fields at Llwynmendy by using a Soil Health Matrix, as seen on the right:



Land Use				
Field				
Soil Type	Sandy			
	Course Silty	Coarse Loamy	Fine Loamy	
Date	Course sinty	Fine Silty	Clayey	
Soil Moisture	Dry	60.1.1		
	Very Moist	Slightly Moist	ist Moist	
Weather		Wet		
	Dry	Wet		
	Cold	Warm		
Indicators				
Texture	Score	Weighting	Ranking	
Structure	0	3	0	
Poros in .		3	0	
Mottles	0	3	0	
Colour	0	2	0	
Worms	0	2	0	
Smell	0	3	0	
	0	2	0	
Pot Root Depth	0	3	0	
Surface Ponding	0	3	0	
Surface Relief	0	1	0	
		Total		
Poor <20			0	
Moderate	20-35			
Good	>35			
Maximum	50			

The second part of the project will entail fermenting manure from the dry cow shed. The process is called 'bokashi' (lapanese for 'fermented organic matter'), a similar process to ensiling forage crops. Traditional composting is an aerobic process that generates heat, which means energy and valuable nutrients are lost. In addition, composting emits a significant amount of carbon. Composting loses 62% of its total mass to volatilisation, and 58% of its organic matter – of which 50% is carbon. This means that 10t of organic matter would lose 3t of carbon. In comparison, only 3% of carbon is lost during the bokashi process.

Method:

By applying active micro-organisms directly onto manure before cleaning out the shed, the solution is able to mix thoroughly through the manure whilst scraping out into a heap. The heap will then be covered and ensiled tightly with plastic sheets and tyres, similar to ensiling a silage pit. The fermenting process will take up to eight weeks, when Rheinallt Harris, who farms at Llwynmendy, will then apply the manure to a random plot on a grazing field. Samples of the manure will be taken before scraping out and eight weeks after treatment, and also from a non-treated manure heap, to compare nutrients.



Assessing soil health and recording soil score



Rheinallt Harris of Llwynmendy applying active micro-organisms

An event was held at Llwynmendy on 9 September 2022, to showcase findings and discuss the topic under review.

For more information on the work conducted at Llwynmendy focus site, please visit: gov.wales/farmingconnectourfarms





Winter feed budgeting - Farming Connect

Winter management plays a large part in the success of a grass-based system to increase the profits and production of the farming business, as managing the winter period sets the farm up for the grazing season ahead.

The aim for winter is to ensure each field on the farm receives 100-150 days of rest (no stock grazing on it), and to have a closing average farm cover of 1800-2200 kgDM/ ha (the higher the stocking rate, the higher the average farm cover needed). This allows pasture covers to be carried over winter and then grazed off in spring, reducing the inputs required and extending the grazing season.

To achieve an early turnout of livestock, fields that farmers would like to graze in March

should have their final grazing of the year in October, allowing time to build pasture covers in autumn to then carry through winter and be available for the first grazing at turnout in March.

40% of pasture dry matter is grown in spring. Carrying pasture over winter and grazing it in early spring promotes early grass growth, and allows an 'extra' round of grazing in spring. This removes the need for concentrates as the ME%, protein % and DM% will be above the animals' requirements at any production stage during that period.

It is therefore key to ensure that farmers have enough feed on farm to carry livestock overwinter to allow a rest period for the grazing platform.

Steps to create a winter feed budget:

I. Calculate livestock winter demand

For each stock class on the farm, complete the following steps to calculate the total winter demand per day (the example below refers to a group of dry ewes):

Group name	Average number through winter	Average weight through winter (kg)	Demand as a % body weight (BW)	Individual demand (kgDM/hd/day)	Total demand per day (kgDM/day)		
Example: dry ewes	400	60	2%	1.2	480		
Α	В	С	D	E = C x D%	F = E x B		
Repeat for all groups on farm							
Total demand of	G = Sum of F for all groups						
Number of days	Н						
Total feed required over the winter (tDM)					I = (G x H) ÷ 1000		

2. Calculate the amount of winter forage on farm

Once the winter demand of livestock is known, a comparison can be made to forage stocks. When winter planning, bear in mind the following points to have:

- The correct plan for your stock What they need vs what you need to grow (performance targets, body condition score)
- The correct plan for your land and labour selection of field, water quality and availability, correct, crop selection.
- The correct plan for profit quality, yield, appropriate to stock class.

Calculations for the two main feed sources are below. Repeat this exercise for all winter forage and calculate the total tonnes of dry matter:

Silage/hay bales

- Calculate number of bales
- Analyse silage quality to understand the most appropriate stock class to feed to and dry matter %

Calculate total tonnes dry matter available (tDM) = Average bale weight (kg) \times dry matter (%) \times Number of bales \times 90% utilisation

Forage crops

- Record and predict yield of crop in tonnes of dry matter (assess crop yield closer to grazing)
- Predict dry matter % of the crop (usually 12-15% dry matter)

Calculate total tonnes of dry matter available (tDM) = predicted yield (tDM/ha) x dry matter (%) x area of forage crops (ha) x 85% utilisation

3. Budget feed supply vs demand

Once you have established the total feed required (tDM) and total feed supply (tDM), compare the difference in quantity to establish if you will have enough winter feed. Check that the quality of feed is fed to the correct livestock group for performance targets to be met. If there is a large surplus, consider the costs associated and need to make surplus, if conditions allow late in the season.

Fill the feed gap

If there is a forage deficit, consider the following options (DO NOT GRAZE GRAZING BLOCK):

- Reduce youngstock numbers sell strong stores first
- Consider the opportunity to plant a forage or a cover crop prior to winter
- Offload livestock to another farm with winter feed (grazing or forage crops)
- Buy in feed (hay/silage) early prior to price rises in winter
- Prepare to feed higher amount of concentrate

For further information on pasture management, please scan the QR code below, or follow the Welsh Pasture Project management notes on the Farming Connect website:



gov.wales/farmingconnect/ land/grass/welsh-pastureproject



Biochar trial could pave the way for farm diversification opportunities

Biochar produced from molinia grass growing on a Welsh upland farm has increased the average yield in a radish crop by more than 300%, in a trial that could pave the way for diversification opportunities for farmers and significant possibilities for carbon storage.

Biochar is a type of charcoal that is produced during pyrolysis. It has proven to be a useful method of increasing carbon sequestration, as it resists degradation and can lock up carbon in soil for thousands of years.

A project supported by EIP Wales, involving horticulturists across Wales and a biochar producer, is showing the potential of this product for growing some commercial crops, too.

A number of vegetables are being grown using biochar, biochar compost with wool and manure and standard compost – all added to soil – and the results are being compared.

The latest set of findings from the two-year study are due to be published later this year, but so far, they show encouraging results for one crop in particular – radish.

That trial used molinia biochar produced by Tony Davies on his farm near Rhayader. Mr Davies removes molinia grass from his land – a measure that improves biodiversity, reduces

fire risk and improves habitats for the golden plover – and uses it to produce biochar to sell to gardeners and horticulturists.

The trials investigated how crops of radish, basil, courgettes, maize and cabbage responded to the inclusion of biochar. One of the initial trials involved Mr Davies' own crop of radish, sown in May and harvested exactly two months later. The trial produced statistically significant results (p<0.001) with plants showing an increase in yield of more than 300% compared to the control crop.



Tony Davies, who produces the biochar being used in the project

Oliver Kynaston, a consultant with expertise in this area, is overseeing the trial and analysing its results. He says that one reason for the



Biochar added to one of the trial plots

larger yield could be biochar's ability to increase soil organic matter and improve its water-holding capacity during a period of warm weather, when there was the potential for water stress on the plants. Another reason is that the soil the radish was grown in had very low levels of potassium (P) - 0.5kg/ha, compared to the UK average of 4-7kg/ha.

"Biochar is known to be a source of P, and may have had a positive impact on yield," says Mr Kynaston.

Biochar is also known to have a liming effect, which is beneficial to crops growing in very acidic soil.

There have also been positive results in a maize trial, involving an organic crop grown by Mike Warrick at Llandrindod Wells. The maize was grown in a fertile silt loam soil with high soil organic matter built up as the result of regular applications of home-made compost over the years. The weight of the maize plants (total above-ground biomass) increased by 66% in the biochar plot. However, this was found to be poorly correlated to the crop (cob) weight, implying that a large plant did not necessarily mean a higher crop yield.

The results from the other two grower sites (where basil and cabbage are grown under the trial conditions) were mixed, but they did produce some interesting findings, which were applied to the year two trials. For basil, for instance, the optimal concentration of biochar is being further investigated, since the highest concentration produced better results than the lowest. In the cabbage trial, biochar compost applied at 30t/ha resulted in a 24% increase in yield over the control plot, although biochar alone had a low impact on yield.

However, Mr Kynaston says that this could be because the soils at those two sites were very productive, with high levels of organic matter, a high nutrient availability and a relatively neutral pH.

"Studies suggest that biochar application has the highest impact when added to degraded or loworganic matter soils," he explains.

Meanwhile, as a biochar producer, Mr Davies believes that with the right policies and financial incentives, biochar use is likely to become more widespread in agriculture, primarily as a method of increasing carbon sequestration – and that could provide opportunities for farmers in Wales.

"Agriculture in Wales has a range of waste products which could be used for processing into biochar," he says.

For more information, please visit the project page on the Farming Connect website.

The Farming Connect Knowledge Exchange Hub

Why are ecosystem function and resilience important concepts for agriculture?

Dr William Stiles: Knowledge Exchange Hub, IBERS, Aberystwyth University

Recently, the news has been full of reports about how damage to ecosystems and a loss in species diversity will affect all of us, and particularly our ability to produce food. Dr William Stiles from the Knowledge Exchange Hub in IBERS, Aberystwyth University, explains why successful food production depends on a functioning ecosystem.

The agro-ecosystem is historically biodiverse, due to the multiple environment and habitat types found on a traditional farm. However, the intensive approaches of modern agriculture, and the resulting simplification of agricultural landscapes, have had adverse impacts on farmland biodiversity. As a society, we rely on the agro-ecosystem for the necessary production of food, but current food production practices can negatively impact agro-ecosystem health and function, which in turn will limit the potential for ecosystem resilience.

This fact presents an increasingly pressing problem for the vitality of farmland environments in the future, as ecosystems that have low biodiversity will have low potential resilience, making them more susceptible to the impacts of environmental change. In this context, where future environmental change affects how these ecosystems function, this could have a direct influence on our potential to produce food, with significant implications for future UK food security.

In order to maintain food production in increasingly variable climatic conditions, boosting ecosystem resilience will be essential to ensure the impact of disturbance from factors such as extreme weather, or pest and pathogen outbreaks can be absorbed by systems with sufficient functional diversity.

A key approach to ensure ecosystems are resilient and able to maintain function is to increase the biodiversity of systems that have been simplified, or where monocultural cropping strategies have been promoted. In ecological terms, environments that have high biodiversity will be more resilient, and therefore more able to absorb the influence of environmental change, allowing the continued potential for agricultural production.

Increasingly, the benefits of farmland wildlife and biodiversity are being recognised, and in more recent years, strategies have been implemented to enhance farmland biodiversity levels. For Wales, the primary approach must centre on increasing species richness in grassland, as this is the largest agricultural environment type.

This action will improve the biodiversity of the grassland systems directly, and consequently, the biodiversity of associated systems, such as the soil. Such a management intervention will also improve the potential for production more generally, by reducing the need for inputs like fertiliser or pest control agents, and by improving soil fertility and the potential for plant growth. Enhancing biodiversity and the potential for ecosystem resilience and ecosystem service provision is therefore an essential strategy, which will also benefit farmers by improving farm production potential.



- 1. Higher levels of soil organic matter under more diverse swards
- 2. Less diverse soil decomposer community in monoculture grasslands, means poorer nutrient cycling and availability
- 3. More diverse beneficial organisms, such as mycorrhizal fungi in diverse grasslands
- 4. Higher rates of biomass production in diverse grasslands
- 5. Fewer resources available for associated fauna, such as pollen and nectar, means less general biodiversity in monocultural grasslands

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The Welsh Government recently published the Sustainable Farming Scheme, which is due to begin in 2025. One of the scheme's universal actions is to have at least 10% woodland cover on farms.

This action will require identifying existing woodland and tree cover on farms, whilst looking at opportunities to plant trees that can benefit the farm business. With the challenges that lie ahead for the farming industry, and the emphasis on improving the environment, it is important to consider the role that tree and hedgerows play, together with the benefits that they bring, in terms of environmental performance and food production.

There are practical interventions within agroforestry, the integration of trees with livestock, and the management of existing woodland by continuous cover forestry, which are highly compatible with food production systems that will work for the farm and provide a return. Through sustainable land management practices, the role of trees and the various benefits they bring to farming businesses will also contribute towards Welsh Government targets, in terms of climate change, increased biodiversity in farming environments and carbon sequestration capacity.

Going forward, identifying the woodland, hedgerow and habitat assets on our farms is essential. Assessing the farm as a whole, and planning to manage and plant to meet the objectives of the business, is vital, in terms of delivering benefits to the farm and to the wider environment. There is widespread evidence that managing farm woodland as an operational asset, together with increasing on-farm woodland cover, is very positive for the business, and could open up pathways for diversification opportunities.

Restoring/planting hedgerows and shelterbelts not only provides great shelter; they also offer habitats and corridors for wildlife, contribute to the biosecurity of the farm by boundary planting, and create better defined field boundaries. Trees also have a special role in saving diffuse pollution in the water resource, and the multi-functional nature of trees will help farmers comply with the Water Resources Regulations. It is vitally important to consider establishing a buffer alongside watercourses that will absorb and filter nutrients and reduce diffuse pollution, as well as protecting the shore from erosion or damage when proposing nature habitats.

It's important, therefore, to plant the right tree in the right place. This not only has advantages in terms of meeting the farm's environmental requirements, but it can also bring economic benefits by increasing productivity, as shown in the following examples:

- An increase in the provision of shade from shelterbelts can extend the growing season, as a result of warmer air and soil earlier in the spring and later in the autumn.
- Sheltered stock also show an increase in meat and dairy production, as a result of the reduction in energy they need to thermoregulate in colder temperatures.
 This can also save losses during the lambing season.
- Some tree species also have properties that can help reduce variable costs e.g. the ability of the alder tree to fix nitrogen, and the zinc and cobalt present in willow trees that can help address mineral deficiencies in livestock.

Farming Connect can support farmers to actively manage their woodland resource by tailoring their management practices — to benefit the quality of their produce significantly, with a view to improving their environmental and economic status, while also being beneficial for the wider environment and contributing to a circular economy.

It's vital to have your say and take part in the next phase of the co-design. Please scan the QR code below, or go to the Welsh Government website to learn more:

gov.wales/sustainable-farming-scheme-guide





Ffrith Farm - Focus Site

Focus Site: Ffrith Farm, Treuddyn, Mold Technical Officer: Debbie Handley

Project Title: Building a farm destination experience around existing resources

Introduction:

Ed Swan has grown up on his family farm, a traditional hill farm in the village of Treuddyn, near Mold in north Wales. The Swan family have farmed at Ffrith Farm since 1980, and they produce their own home-reared beef and pork to sell from their farm shop on site.

They have approximately 120 beef cattle on the farm: Hereford, Aberdeen Angus, British Blue, Simmental, Charolais, Welsh Black, Limousin, Shorthorn and over 100 pedigree Welsh pigs, all free range. They also have egg-laying hens to keep the shop supplied.

Arable crops of wheat, barley, silage, hay, kale and turnips are grown on the farm to feed the livestock. Harvesting takes place from June to October, and supplies them with all the feed needed for the coming year.



Ffrith Farm sunflower field, 2021

A farm trail allows the public around the circumference of the farm, offering amazing views and the opportunity to see the animals grazing in their fields, the farmers at work, the different types of crops and some incredible wildlife. It is this area of the farm that the project intends to build on: developing the farm destination experience by growing sunflowers and pumpkins; expanding on the opportunities for the public to visit the farm; bringing in additional income; engaging more with the local community and building biodiversity into the day-to-day farm activities.

Pumpkin and flower Pick Your Own enterprises have become extremely popular over the last few years, in particular during the pandemic, as people have become keen to undertake outdoor experiences and activities. The land around the farm shop will be used, where customers are easily able to view and access the PYOs.

Project Objectives:

The project will consider existing resources, using land around the shop that is currently not in use, and fitting in with the labour requirements of the farm. Growing sunflowers and pumpkins requires careful management, to achieve production and clearance of the crop to meet the short harvest window. However, the crops can be easily managed alongside current routine farming activities, and in this instance, will require limited additional labour input due to having the shop on site.

The project will:

- Explore the choice of varieties of sunflowers and pumpkins, considering the colour and size required for a PYO setting
- Clear and develop areas around the shop for the pumpkin and sunflower Pick Your Own
- Focus on weed control and providing the correct nutrient balance for the crops, recording any disease issues
- Consider how to build additional biodiversity into the existing farming activities, e.g. encouraging more wildlife, using pollinators, using fewer chemicals
- Engage the public and local community through the use of social media and using existing networks/connections such as schools, community groups and public-facing groups
- Provide education for the public about mainstream farming and the benefits of animals to soil fertility and the holistic aspect of farm management

KEY PERFORMANCE INDICATORS:





Time/labour and cost inputs (number of hours worked, how it impacts and/or complements existing farming activities, cost of plants, seeds, chemicals, fertiliser, equipment, etc) versus income

Increase in land area providing suitable habitat for biodiversity

For more information on the work conducted at Ffrith Farm focus site, please visit: gov.wales/farmingconnectourfarms



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Control of \(\infty \) Agricultural Pollution Regulations TEMPORARY FIELD SITES

The Water Resources (Control of Agricultural Pollution) (Wales) Regulations 2021 have introduced new requirements for the storage of manures (including farmyard manure) in fields to minimise the risk of pollution.

Manure stored permanently in the same location must meet the requirements for the storage of organic manures outlined in the regulations. However, solid organic manure (or any bedding contaminated with organic manure that can be stacked in a free-standing heap and does not drain liquid from the material) may be stored on a temporary field site.

Temporary field sites have additional requirements to reduce the risk of pollution.



Location

Temporary field sites:

- Must not be located in a single position for more than 12 consecutive months
- Must not be located in the same place as an earlier one constructed within the last two years
- Must not be located in a field liable to flooding or becoming waterlogged
- Must not be located within 50 metres of a borehole, spring or well or within 10 metres of surface water or a land drain (other than a sealed impermeable pipe)
- Must not be located within 30 metres of a watercourse on land identified on the risk map as having an incline greater than 12°

Measures to prevent pollution from leaching

Topsoil must not be removed from the ground upon which a temporary field site is to be constructed. This will help to retain any nutrients that do leach from the heap.

The surface area of a temporary field site must be as small as reasonably practicable, as this helps to minimise the leaching effect of rainfall.

Additional requirements for poultry manure

Solid poultry manure that does not have bedding mixed into it, and is stored on a temporary field site, must be covered with an impermeable material. Poultry manure without bedding is prone to slumping if any rainfall or water is allowed to come into contact with it, which would result in it becoming unsuitable for temporary field heaps. Covering with impermeable material is a method of mitigating against these instances.

Detailed Guidance for Farmers and Land Managers and a Frequently Asked Questions document is available on the Welsh Government website: **gov.wales/land-management**

Farming Connect support

Farming Connect have a range of support that can assist you with the regulation requirements. These include one-to-one surgeries, on-farm clinics, e-learning modules and events. For further information, please visit the Farming Connect website: **gov.wales/farmingconnect**

The Control of Agricultural Pollution Regulations Helpline

A dedicated Control of Agricultural Pollution Regulations Helpline, operated by ADAS, is available to support farmers and land managers with the requirements of the Regulations. You can contact the helpline on **01974 847000**.

Is e-learning for you?

- interested in personal and/or business development?
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- Sustainable agriculture and horticulture topics, including organic systems
- Climate change, carbon reduction and alternative energies
- Diversification-related topics





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Get your e-learning journey started

Before you can complete an e-learning module, you need to:

- Be registered with Farming Connect with your own individual email contact, which must be unique to you. To register, contact the Farming Connect Service Centre on 08456 000 813 or visit gov.wales/farmingconnect
- Log into your BOSS account. If you need any further information, or help with accessing BOSS, please call your local Farming Connect development officer.

"I was able to study in my own time, choosing from a huge range of agri-related interactive topics, giving me new skills and knowledge that I utilise every day in my job.

"The short quiz at the end of every module reassured me that I'd learned what I needed to know."

"I turned to e-learning to learn how to give our calves the best possible start in life.

"Between the whole family, we've tackled ICT, business management, finance and VAT returns, as well as a huge range of animal health topics, soil health and grassland management."



KIM BRICKELL Manager, Folly Farm, Tenby



EMMA ROBERTS AND FAMILY Dairy farmers, Clynderwen



Looking for a shortcut to a new you, a fresh approach?

Use the photo tool on your mobile phone to hover over this QR Code and your e-learning journey has just begun!

Mentoring can save you time and money!

"However confident you are in your own ability, there are sometimes better or different ways of doing things."

These are the words of William Williams, who keeps around 500 easy-care ewes at the 200-acre farm near Bangor which has been tenanted by his family for many generations. William turned to Farming Connect's mentoring programme two years ago, when he realised his traditional system of 'set stocking' was no longer the most efficient or profitable way of running the farm. He selected well-known Mid Wales beef and sheep farmer Keith Williams as his mentor. A Nuffield scholar and former Farmers Weekly Sheep Farmer of the Year, Keith's mentoring has helped William transform his farm business.

MENTORING - HOW IT WORKS

William and Keith Williams visited each other's farms – and when the pandemic restricted face-to-face meetings, continued their dialogue online and over the phone.

William sought mentoring from Keith on:

- Managing grassland and measuring grass
- Improving performance of the flock, which was previously managed on a set stocking system, and not reaching peak performance levels
- Reducing fertiliser costs

Keith's mentoring recommendations included:

- Giving the land a long rest in the winter, which minimised poaching by bringing all the flock indoors
- Investing in electric fencing and planning the division of cells for intensive rotational grazing
- Advising on land parcels to ensure even grazing patterns
- Targeted application of fertiliser to reduce application time and costs



William Williams

The outcomes for William:

"We are sub-dividing the land, based on Keith's suggestions, so that the land parcel shapes ensure even grazing patterns, and we have avoided making costly mistakes.

"The cell system has resulted in huge savings on fertiliser costs – we now apply around half what we did before.

"By the time the ewes were ready to lamb outdoors in April, the grass was in great condition.

"I found it hugely beneficial to talk directly to an experienced sheep farmer who has made the most of his own land by implementing a similar intensive rotational grazing system.

"Having Keith as a mentor has shown how we can always learn more, no matter how sure we are of our own abilities.



A final word from Keith:

"Although William has used up his mentoring hours, he's now got his blueprint for the future.

"I really enjoy being a mentor, and William knows I'm always on the end of a phone, happy to support him any time he might need my advice."

Keith Williams



Key Messages: Moving Vehicles

Never approach, walk behind or beside a moving vehicle. If you must approach, attract the driver's attention first (when safe) and get them to stop.

- ✔ Work should be planned to keep people away from moving vehicles
- ✓ Vehicle routes should be away from pedestrian routes/doors/gates/exits
 - ✔ Drivers must be trained
 - ✓ Ensure mirrors are fitted, properly adjusted and clean

