

THE MAGAZINE FOR FARMING & FORESTRY IN WALES

FARMING connect



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FFERMIO

08456 000 813

Announcing 18 new
Demonstration Sites

Farmer discovers
truffle cultivation is
well suited to Welsh
climate



Cronfa Amathyddol Ewrop ar
gyfer Datblygu Gwledig
Ewrop yn Buddsoddi mewn Ardaloedd Gwledig
European Agricultural Fund for
Rural Development
Europe Investing in Rural Areas



Llywodraeth Cymru
Welsh Government

Why registering with Farming Connect should be a family affair!



Are you looking through this publication because you want to keep up to date with best practice and find out how other farmers and foresters in Wales are finding ways to work more efficiently or profitably? We hope you find it interesting reading, because it's also a great way for us to tell you about any new services, special projects, training opportunities and events we are planning.

It's very likely that only the main partner in your family business receives their own copy of this publication, because they are the only individual within your business who is personally registered with us. This also means that only one member of your business is eligible to receive Farming Connect's support.

It's time to change that! We want to make sure that every member of your family or business, who is over 16, registers too. If you are involved in the business, then we have support, guidance, information and much more to help you and the business you're a part of. Once you have registered, you will personally be eligible to receive the wide range of guidance, support and specialist training that's available through

Farming Connect. Many services are fully-funded, while others are subsidised by up to 80%.

Registration is quick and easy. You can call the Farming Connect Service Centre to register over the phone: 08456 000 813, visit www.gov.wales/farmingconnect to register online, or speak directly to your local development officer. You'll find their contact details on our website. What you'll get in return is down to you, your level of commitment and the type of support you decide would most benefit you.

We, at Farming Connect, are focusing on helping businesses prepare for challenges and opportunities the future may bring. Whether we leave the EU with or without a deal, every member of the business needs to contribute to the overall objective of making the business fit for the future - whatever that looks like! With our support, every member of your business will be working towards the same goal!

Get in touch today; be part of the success story!



Announcing 18 new Demonstration Sites

Farming Connect has announced a new network of 18 Demonstration Sites to drive improvements and increase productivity across a variety of farming systems, which is key to helping all farmers in Wales to improve and develop, through open days, technical events and publications to communicate progress achieved within projects and trials.

During the next three years, these farms will take part in activities to advance on-farm productivity, using new techniques and monitoring performance.

This is a Special Edition of the Farming Connect Technical Publication, to share more information about the new sites and demonstration farmers who will be taking part in projects and studies over the next few years.

DAVID LEWIS

Halghton Hall, Wrexham

Halghton Hall is a 121-hectare (ha) grassland farm supporting a flock of 800 indoor lambing ewes.

The farm is run by David Lewis, the third generation of his family to farm Halghton Hall.

The flock is tupped with Innovis rams in early September to lamb in February. Ewe lambs are tupped a month later and lamb in March. The main flock scans at an average of 190% with an average of 1.75 lambs sold per ewe. Ewe lambs rear one lamb before being integrated in the flock the following year. Lambs are sold at a target deadweight of 20kg from the end of May.

Emphasis is placed on production from grass and clover; around 10% of the farm is reseeded annually with high sugar Aber varieties.

Charolais and Limousin beef cattle are grazed during the summer then fattened on grass silage and concentrates to finish at between 18-23 months.

The Glastir Advanced contract at Halghton Hall has been key in the restoration of hedgerows and the creation of wildlife corridors.

Key areas you wish to focus on as a demonstration farmer:

- Sheep genetics
- Cost of production
- Carbon capture



Llion and Sian Jones

Moelogan Fawr, Llanrwst

Moelogan Fawr is a 304-hectare (ha) upland holding farmed by Llion and Sian Jones.

The couple had been tenant farmers on a National Trust farm before they returned to the farm which has been in Sian's family for three generations. Moelogan Fawr rises from 1,000 feet to 1,500 feet and supports a beef herd of 100 suckler cows and 36 heifers and a flock of 1,200 ewes.

The sheep flock is a mixture of Welsh, Cheviot and crossbred ewes. The majority of the crossbreds lamb indoors from the beginning of March, but this year 120 were sponged to lamb in January; this allowed the ewes to be sold with their lambs at foot to aid cashflow at a quieter time of the year.

The Welsh and Cheviot ewes lamb outdoors from April. All lambs are finished off grass; to reduce inputs of purchased feed, a mixed herbal ley has been planted to finish lambs.

5.7 ha of swedes are grown to feed ewes 4-6 weeks before lambing. 10ha of trees have been planted through Glastir Woodland Creation.

Key areas you wish to focus on as a demonstration farmer:

- Performance recording of sheep
- To evaluate options for different beef systems
- To consider ways of tightening up the calving and lambing periods
- To consider the value of total mixed rations (TMR) in the beef and sheep system.



JAMES POWELL

Dolygarn, Llandrindod Wells

Dolygarn Demonstration Site is a 182-hectare (ha) upland farm farmed by James Powell and his father and uncle, Matthew and Tudor.

James' grandfather first farmed Dolygarn as a tenant, and the family later bought the farm.

The grassland farm rises from 1,000 feet to 1,500 feet and has silty loam soils above clay.

The business produces lamb from a flock of 1,000, mostly Aberfield ewes, and beef from a herd of 30 suckler cows.

The sheep flock also includes some Welsh ewes.

The pure Aberfields are topped with Aberblack rams to add length and additional muscle to the strength and muscle of the Aberfield.

Rams are turned in with the ewes on 15 November and lambing gets underway outdoors on 10 April for a four-week period.

The flock is housed for three months from 7 January to allow the fields to rest and is turned out again two weeks before lambing. Three hundred ewes are wintered away on tack land.

The suckler herd consists of Saler and Aberdeen Angus breeds.

10ha of trees have been planted through the Glastir Woodland Creation programme.

Diversifications

A 'bed and breakfast' pig unit is currently being established.

A cottage is let out as a holiday rental.

A biomass boiler provides heat for three properties on the farm.

Key areas you wish to focus on as a demonstration farmer:

- Soil health: Our aim is to fatten everything from grass but heavy soils are our limiting factor
- To consider ways of reducing inputs by growing diverse species
- How we can further maximise the utilisation of grass



RUSSELL AND RHYS EDWARDS

Hendre Ifan Goch, Bridgend

Hendre Ifan Goch is a 91-hectare (ha) Severely Disadvantaged Area hill farm in the South Wales Valleys run by Russell and Rhys Edwards.

The farm, which rises from 600 feet to 1,300 feet, supports 400 Aberfield mules, 200 Welsh mules and 130 ewe lambs.

The flock is performance recorded and culling decisions are based on that data.

A rotational paddock system has been created for grazing the flock.

Forty acres of chopped pit silage is harvested in June.

The flock is housed early for lambing from 5 March and fed a total mixed ration (TMR).

Lambs are weaned at 12 weeks and sold deadweight to Dunbia or Kepak.

Diversifications

A 5.5kW hydro generator produces an average of 27,000 kilowatt hours (kWh) annually.

In 2000, the family created a farm park and trout fishery; this site is rented out as a highly successful wedding and events venue.

In 2013, a caravan and camping park was established.

Key areas you wish to focus on as a demonstration farmer:

- Sheep health
- Carbon footprint: We have already integrated renewables into the business and would like to explore ways of further improving our carbon footprint
- Alternative to bedding: With a view to improving flock health, we would like to trial different bedding surfaces
- Utilising new technologies to improve flock health through gathering and analysing data on growth rates, animal temperature and water intake



WYN AND EURIG JONES

Pantyderi, Boncath

Pantyderi is a beef, sheep and arable holding run by father and son, Wyn and Eurig Jones.

The business farms 445 hectares (ha) across two units and off-lying land.

The beef enterprise includes 80 spring calving Hereford-cross suckler cows sired to a Limousin bull. All offspring are fattened on a ration incorporating home-produced crimped barley and silage and sold direct to slaughter at 18-24 months.

Store cattle are also purchased for fattening, sourced from local livestock markets and private sellers. Around 200 cattle are fattened annually.

The sheep flock consists of 1,500 Texel-cross ewes topped to Texel, Abermax, Aberfield and Charollais rams.

The flock scanned at an average of 160% this season. The triplet and twin-bearing ewes lamb indoors from 10 March and the singles outdoors, also from 10 March. Most lambs are fattened off grass with a small quantity of creep introduced just before finishing. The majority of carcasses achieve U and R grades.

The business grows 44.5 ha of spring barley and 16 ha of winter barley and winter wheat.

Diversifications

Additional income is generated from holiday accommodation and two 50kW solar systems.

Key areas you wish to focus on as a demonstration farmer:

- Using EID to record cattle and sheep performance: Liveweight gain information is already captured on a weigh cell, but the next step will be to integrate this information with software to help inform breeding and buying decisions
- To maximise under-utilised areas of the farm for environmental purposes: Poorer areas of the farm are not sufficiently utilised, so we would like to take advantage of environmental schemes to maximise the value of these to the business



TOM AND BETH EVANS

Pendre, Llanfihangel y Creuddyn

Tom started farming with his parents on the family farm at Brynperffraith, Devil's Bridge, in 2005.

The family acquired Pendre in 2000, and Tom took it over in 2010.

The upland farm is 24 hectares (ha) and a further 61 ha are rented.

Tom works off-farm for Welsh Lamb and Beef Producers for three days a week.

The 480-ewe closed flock is a mixture of Mule crossbreds, improved Welsh Tregaron-type and Welsh Hill Speckled Face ewes.

Beltex x Charollais tups are used on the crossbred ewes and Welsh and Bluefaced Leicester tups on the rest of the flock.

100 crossbred ewe lambs are tuppé annually.

The crossbreds scan at an average of 180% and the Welsh Tregaron-type and Welsh Hill Speckled Face at 160%.

All ewes lamb indoors between 20 February and 20 March.

Lambs from the crossbred flock are sold into the liveweight market in May and the later born lambs to Dunbia.

Forty breeding rams are sold annually.

Key areas you wish to focus on as a demonstration farmer:

- To maximise grass utilisation: Through Farming Connect, we have sampled soils in every field and they are all at optimum 6 and 6.5 pH. We know we can grow grass, but there is more we could do to utilise what we grow
- To improve lamb survivability in the first 10 days of birth



EDWARD, JACKIE AND ELLIS GRIFFITH

Bodwi, Pwllheli

Bodwi is a lowland beef and sheep holding which has been run by the Griffith family for four generations.

Edward and Jackie Griffith farm with Edward's parents, William and Helen. They have now been joined in the business by their son, Ellis.

The total area farmed is 247 hectares (ha) which includes 113ha of rented land on a holding 18 miles from Bodwi.

Soils at Bodwi are fertile medium loam. The farm is all grassland apart from 6.9ha of oats grown as part of a Glastir Advanced agreement.

The farm is stocked with a Stabiliser herd of 160 suckler cows and 1,150 Suffolk-cross ewes. The herd calves in a nine-week block from 7 April with 80% calved in the first three weeks. The beef unit has been run as a closed herd for 20 years. Embryo transfer is used to maximise genetic improvement.

Male calves are reared as bull beef, some at Bodwi and others on a finishing unit in Selby. The target age for finishing is 12-14 months with animals sold direct to slaughter.

Some of the male animals are sold as breeding bulls at 12-14 months.

Heifers are reared on grass and silage after weaning. A proportion are retained as replacements and others are sold as bulling heifers. Any animals that don't make the grade for breeding are fattened on the farm.

All cattle are performance recorded. The ewes are tugged to Abermax or Texel rams, achieving a scanning average of 180%.

The flock lambs indoors in February. Lambs are creep-fed at grass in April and May to get everything sold by mid-August.

All lambs are sold deadweight. The family also runs a flock of 280 replacement ewe lambs, mostly purchased from Scotland.

Diversifications

Energy is produced from a 10kW wind turbine.

Additional income is generated by a small caravan site and four holiday cottages.

Key areas you wish to focus on as a demonstration farmer:

- To compare the profitability of different beef finishing systems
- We would like to explore the merits of cell grazing to sustainably increase production while lowering our costs



CEREDIG AND SARA EVANS

Erw Fawr, Holyhead

Erw Fawr Demonstration Site is a 192-hectare (ha) holding farmed by Ceredig and Sara Evans in partnership with Ceredig's parents, Ifan and Ann.

The family produces milk from a high yielding pedigree Holstein herd, run on an all-year round calving system.

The Branwen herd was established in 1980 when the farm converted from beef and sheep to dairy.

Cow numbers have gradually expanded from 120, when Ceredig returned to farm in 1995, to the 300 in the herd today. There are 250 followers.

Sexed semen, in conjunction with genomics, has been used to boost heifer numbers, and additional income is generated from selling surplus heifers.

A Limousin stock bull is used to sweep up after AI.

The herd produces an annual milk yield average of 9,000 litres at 4% butterfat and 3.3% protein with milk sold to Arla.

Cows are fed a Compact TMR incorporating home-grown maize and wholecrop.

The herd is run as two groups - high and low yielders – when they are at grass between April and October with the highs fed a buffer to maintain yield.

Although intakes are based around TMR and purchased feed, the business aims to maximise grass intakes during the grazing season; the grazing platform, on clay loam soils, is split into paddocks.

Key areas you wish to focus on as a demonstration farmer:

- Using technology to measure and monitor pasture: Erw Fawr grows grass well but we need to make better use of that grass to reduce the amount of purchased feed we include in the cow diet
- To improve dry cow transition:
A lot can go wrong during the transition period so we would like to consider the role of nutrition and management at this important time in the production cycle, to improve post-calving performance and calf health



IWAN FRANCIS Nantglas, Carmarthen

Nantglas Demonstration Site is a 55-hectare (ha) dairy farm run by Iwan Francis. He rents a further 75ha of off-lying land.

The grazing platform is 58ha and three 40ha crops of silage are cut annually; 300 big bales of silage are also made.

The herd is split block calving; 100 cows calve in the spring and 100 in the autumn.

There are 120 heifer followers.

Cows produce an annual milk yield average of 6,500 litres at 4.5% butterfat and 3.5% protein.

Milk is supplied to the Dairy Partners creamery at Newcastle Emlyn.

Key areas you wish to focus on as a demonstration farmer:

- Cow fertility: Fertility can be a challenge as we have two calving blocks. My aim is to reduce our calving period from 12 weeks to 9 weeks
- Soil and grassland management: Purchased feeds add to our cost of production, so if we can reduce our reliance on these by improving the performance of our grassland, this will make our business more sustainable
- Eradicating Johne's from the herd: Herd health is a priority, and Johne's is a disease we really want to get on top of
- To consider the value of growing mixed leys: We are keen to learn more about how we can incorporate mixed leys into our system to provide variety in cow diets





EIPWALES

Cydweithio er ffyniant gwledig
Collaborating for rural success

Where have ewe moo-ved to? Trialling the use of tracking technology in extensive grazing systems

'Laptop farming' is something some of us joke about; the image of futuristic farmers being able to do everything from their kitchen table...like a real-world farming simulator. This might be a long way off, however, over the last few years, Long Range Wide Area Network (LoRaWAN) has shown how this concept could be closer than we think. LoRaWAN is part of the Internet of Things (IoT), which is basically a term that encompasses everything from a phone to a toaster that's connected to a network of some sort. Anyone can buy a LoRaWAN gateway (network mast) and mount it on a house, shed, or on top of a hill. Providing the gateway has mains power and some sort of internet (Wifi, ethernet, or cellular), it will emit a low radio frequency to a range of about six miles radius with direct line of sight.

Imagine if your farm gate sent you a signal when it was being opened in the middle of the night or if you had a notification on your phone when a cow was in heat and ready to be artificially inseminated. Think about all the 'things' on your farm that could have some sort of device/sensor on it that could send information to you via a LoRaWAN mast. As LoRaWAN is only designed to send simple sensor data such as temperature, movement, location, height etc., and not larger files such as images, devices can last years on standard batteries which gives it the edge over 4G and 5G. There are already many LoRaWAN gateways dotted across Wales. Measuring and monitoring accurately in real time is becoming ever more important for precision farming, and this technology can help farmers make informed decisions using the latest information available.

A group of six farmers from across Wales have started their EIP Wales project investigating how this technology can help them manage their livestock on extensive land.

With the aim of farming smarter and not harder, the group are investigating how using tracking technology can help prevent problems such as difficulties in gathering, grazing management, and theft on extensive land. Four of the farmers are sheep producers on the Brecon Beacons and share common summer grazing up on the mountain. One farmer grazes coastal land near Margam, Port Talbot with cattle, and the final farmer undertakes conservation grazing on land in north Wales.



The location of the six farms taking part in the EIP Wales GPS Tracking project



Farmer discovers truffle cultivation is well suited to Welsh climate

A question mark over whether the cultivation of truffles could provide opportunities for Welsh agriculture has been answered in part by a Radnorshire farmer, thanks to a Farming Connect Management Exchange study.

John Goodwin's interest in trufficulture was intensified when he attended a seminar on the subject as a member of a Farming Connect Agrisgôp group.

Following this, Mr Goodwin wanted to take his research further and was awarded funding by the Farming Connect Management Exchange programme to participate in a trufficulture course in France.

"It seemed the perfect opportunity to find out whether this was viable in Radnorshire, and to answer the question, is this speculation or opportunity?" reflects Mr Goodwin, who farms in Presteigne.

Climatically, trufficulture is becoming less favourable in the south of France as the fungus' range is extending northwards due to desertification and climate change.

Mr Goodwin discovered that some species are well suited to the Welsh climate. Moreover, the industry is highly profitable where it is viable.

"The best figures I encountered were

€240,000/hectare/year north east of Paris in similar conditions to Southern UK," he reports.

In direct contradiction to information received in the UK, trufficulture is highly site-specific, he observed.

Calcareous limestone and sandy soils are necessary. "It is not a case of simply applying lime as I was led to believe by UK firms," says Mr Goodwin.

"It seems that significant sand content in the soil is necessary."

On suitable sites, trufficulture may be compatible with Glastir Woodland establishment schemes and, in the future, carbon offsetting and public goods schemes, Mr Goodwin believes.

Green field sites are best suited - not established woodland, he adds.

He concludes that success cannot be guaranteed, but to improve those chances, a measured, scientific and sequential approach is necessary, starting with soil analysis.

Develop your skills, develop your business, plan for the future...

Skills application window open NOW!

With new training options added to the already comprehensive range of business, technical and practical skills and training courses available through Farming Connect, it's time to check out your options!

This year's third and final application window for Farming Connect's skills and training programme is open now until 17:00 Friday, 1 November 2019.



Director of Lantra Wales, Kevin Thomas, says that as the industry gears up for the uncertain trading conditions of the future, it is essential to have the necessary skills to run your business efficiently.

"I urge all registered businesses to consider their options and apply during this, the final application window of 2019.

"We are keen to encourage every eligible member of your family who is not already registered to sign up now and take advantage of the newly expanded range of courses available.

"All training is subsidised by up to **80%** for registered businesses, and provided

your business is registered with Farming Connect, you, your family members and PAYE workers can select any training they require.

"Farming Connect now offers more than 80 different courses, ranging from animal health to soil and grassland management topics and from business, finance and food processing to health and safety and the use of drone technology.

"By remaining responsive to market requirements, the range of training provided is constantly evolving, and we believe we have something to offer every individual within every Welsh business," said Mr Thomas.

All applicants will need to complete a Farming Connect online personal development plan (PDP).

- **Business improvement** courses are funded by up to **80%**
- **Technical** skills courses are funded by up to **80%**
- **Machinery/equipment** courses are funded by up to **40%**
- Other options, including online **e-learning** options, are **fully-funded**

For assistance with your application, contact your chosen Training Provider, local Development Officer or our Service Centre on 08456 000 813 early in the skills application window.

Improving red clover productivity

Why grow red clover?

Red clover is an increasingly important forage legume for sustainable grassland systems. It has the ability to fix between **150-250kg** of nitrogen/ha/year and with the correct management, mixed swards of red clover and perennial ryegrass can yield between 15 and 20t of dry matter/ha/year. Red clover is high in protein and red clover silage typically has a crude protein content of **18%**.

However, sometimes it proves difficult to grow because it lacks persistence in the sward, particularly under a grazing system. This is because it grows from crowns that are vulnerable to over grazing and can also be damaged by severe frosts.

Red clover is also susceptible to diseases, including crown rot (*Sclerotinia*) and stem nematodes (Eelworm).

What is *Sclerotinia*?

Sclerotinia trifoliorum is a soil borne fungal pathogen. During spring growth, its rapid development can have major effects on the productivity of the sward.

Sclerotinia is very hard to spot in spring as its initial symptoms looks like normal winter damage. But any plant which looks to be reduced in size and very brown is a cause for concern. Small matting of hair-like strands (see photo) with a similar look to a dense spider's web, could be the fungal mycelium.

Sclerotinia has two ways of getting into a sward: one is by the mycelium through soil movement from field to field, either by animal or machinery; the second is by spores emitted from the fruiting body stage of the fungus' life cycle. The spores are spread by the wind, and spore infection is most common at the end of summer and the autumn months.



New podcast launched to keep your “Ear to the Ground”



'Ear to the Ground' is a brand-new podcast, the first of its kind to be available in both Welsh and English, that will share technical information, advice, support and inspiration to the farming community in Wales.

Podcasts are becoming increasingly popular with a surge in listenership over the past couple of years.

“One reason for this rise in popularity is that they are a format which can so easily fit into our busy lives. This is particularly relevant for the agricultural sector as you can often listen while working”, said Eirwen Williams, director of rural programmes with Menter a Busnes.

The podcast will be available to listen to via a link on the Farming Connect website from Monday 23 September. Episodes are just 20 minutes long and will include interviews with farmers and industry experts on a range of topical themes.

The first episode of 'Ear to the Ground' will focus on how we can improve our grassland management and utilisation. As Welsh farmers, one of our greatest strengths is the excellent climate that exists here to grow quality grass. But are we making the most of this strength? This is what Jim Ellis and Aled Jones will discover when talking to one of the country's leading grassland management consultants and two farmers who have changed their systems to grow more grass on higher ground.

A new episode will be published every fortnight, and topics for the Autumn months will include conversations recorded at the Innovation and Diversification Wales event, the Farming the Environment event and an opportunity to get to know some of our new demonstration farmers. All episodes will remain online so that you can listen in your own time at a later date if you prefer.



How to embrace New Environmental Expectations		
30/09/19 10:00 - 16:00	Gelli Aur Campus, Llandeilo Carmarthenshire SA32 8NJ	
<i>Abigail James 07399 970 988 abigail.james@menterabusnes.co.uk</i>		

Reducing Mastitis in Dairy Cattle		
02/10/19 10.30-13.30	Holt Lodge Hotel, Wrexham LL13 9SW	Daleside Vets 01978 311 444
01/10/19 11:30 - 14:30	Black Lion Hotel, Lampeter SA40 9UE	Steffan Veterinary Services 01570 422 322

Controlling Digital Dermatitis in Cattle		
08/10/19 10:30 - 14:30	White Horse, Overton, Wrexham LL17 0LU	
<i>Simon Pitt 07939 177 935 simon.pitt@menterabusnes.co.uk</i>		

Implementing rotational grazing for an all grass wintering system		
08/10/19 14:00 - 16:00	Dolygarn, Llanbadarn Fynydd, Llandrindod Wells, Powys LD1 6YL	
<i>Elan Davies 07985 379 890 elan.davies@menterabusnes.co.uk</i>		

Bovine Viral Diarrhoea (BVD)		
14/10/19 11:00 - 14:00	The Rose Inn, Redwick, NP26 3DU	Tyndale Vets 01453 511 311

Trace elements in sheep		
16/10/19 14:00 - 16:00	Clawdd y Mynach, Cowbridge, Vale of Glamorgan CF71 7QP	
<i>Elan Davies 07985 379 890 elan.davies@menterabusnes.co.uk</i>		

Social Media Workshop		
23/10/2019 16:00 - 18:00	Lamphey Court Hotel, Tenby SA71 5NT	
<i>Canolfan Wasanaeth 08456 000 813</i>		

Lambing Losses Part 1: Abortion & Nutrition		
08/10/19 19.30 - 22.30	Llanarth Village Hall, Llanarth, Usk NP15 2AU	Farm First Vets 01873 840 167
09/10/19 19:30 - 22:30	Farm First Veterinary Services Ltd, Unit 1, Abergavenny NP7 9AT	