



WINTER FEEDING

How effective feed management can reduce production costs.



WELSH PASTURE PROJECT

In this issue – Gain an insight into the issues affecting grassland management in 2016.



INTRODUCTION



WELCOME to the fifth edition of Farming Connect's technical publication, following a prolonged period of fine weather in mid-August which was enjoyed here at Llysun, one of 12 Farming Connect Demonstration Sites.

All lambs were weaned early July with the stronger ones of 34kg+ turned to aftermaths and a reseeded ley with rape. The smaller lambs, 28-34kg have all received a trace element bolus and remain on the hill having grazing priority ahead of the cattle and ewes. The lambs continue to do well with weekly loads being sold to an average carcass weight of 19.2kg.

A sample of 45 ewes have been blood tested for trace element levels and we await the results.

Fifty grazing yearling cattle are due to return down from the hill onto second cut aftermaths with concentrate supplementation expected to be introduced from early September to maintain growth rates. The aim is to gain 150kg at grass from a turnout weight of 414kg.

Bulls had a very busy July and as we enter the third cycle, cow bulling activity appears to be very quiet. Synchronised heifers were fixed-time AI'd on 30 June and pregnancy scanned on 19 August again they seem settled with no visual activity. Maximising first cycle conception rates is our main driver.

Calves are growing well and have entered their 'teenager stage', as I call it, having lost their puppy fat cover and grown legs and hair! Calves from first calved heifers will be introduced to creep feed from early September.

Two cuts of silage have been harvested with stocks looking healthy and is due to be analysed.

Four fields have been spread with 130 tons of calcium lime to correct pH levels and most fields have received a top dressing of fertiliser to ensure late summer grass growth rates are maintained. Applying sulphur has become a priority with all grazing and silage fields receiving applications.

Richard Tudor - Farming Connect Demonstration Farmer

Farming Connect

Register for the programme today!

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farmingconnect/farming-connect-registration](https://businesswales.gov.wales/farmingconnect/farming-connect-registration)



Grazing systems for livestock among trees

– Increasing farm productivity and reducing carbon emissions

Geraint Jones: Forestry Technical Officer – Farming Connect



Agroforestry is the growing of both trees and agricultural / horticultural crops on the same piece of land. The aim is to provide tree and other crop products and at the same time protect, conserve, diversify and sustain vital economic, environmental, human and natural resources. Agroforestry differs from traditional forestry and agriculture by its focus on the interactions between growing plants rather than just on the individual crop types themselves.

Research over the past 20 years has confirmed that agroforestry and trees on farms have been proven to not only mitigate the effects of climate change, but also increase the resilience of farms, whilst improving farmers' livelihoods. Thus it can be more biologically productive, more profitable, and be more sustainable than stand alone forestry or agricultural monocultures.

The project at Henfaes research centre, utilising the established agroforestry areas, will demonstrate the agroforestry practice of grazing livestock amongst trees that have been managed to allow enough sunlight to produce productive alleys of forage crops of rape and stubble turnips as break crops between rows of trees. The data produced will be used to assist and inform farmers about what options are available that could diversify their farming practices, and sustainably increase on-farm productivity and profitability. Open days will

demonstrate the procedures that can be adopted to increase the multi functionality of the farming landscape, and deliver improvements in ecosystem service provision, without reducing the productivity and profitability of sheep farming business. Upland farms account for a large proportion of sheep and beef farms in Wales. The research at Henfaes provides the opportunity for farmers to investigate and gain knowledge to develop their businesses in a more sustainable manner and improve the environmental performance of the farm.

The project will also assist in developing farmers skills by developing and improving their capacity to manage their available resources through proven practices that reduce carbon emissions. The agricultural sector in countries such as Australia are benefiting from a nationally mandated cap-and-trade programme that lets farmers who adopt carbon-sequestration practices sell carbon credits to heavily polluting corporations in need of offsetting their carbon footprints. A challenge to farmers is identifying simple, robust and reproducible methods to quantify the carbon sequestered for accounting purposes. This project will provide carbon accounting figures that can be compared on an annual basis throughout the duration of the project.



Welsh pasture project by Chris Duller



Grassland management in 2016 has so far been a little tricky for some – most have grown plenty, but often struggled with quality and utilisation. The slow start to the season in April and early May cost most around 1t of dry matter, meaning that many people were chasing grass and feeding for longer than they had anticipated.

Whilst May turned out to be a dry month, many missed the opportunity to make top quality silage as closing out fields was delayed by a week or two, pushing silage cuts into a damp June. Late May and early June saw some extreme grass growth, with many recording growth rates of 130kg DM/ha/day and above.

Poor ground conditions and high growth rates meant plenty of wasted grass and poor residuals through June and July, which continued to affect grazing quality right through the summer. Pre-mowing was a popular option for many dairy grazers, whilst the toppers seemed to be out in force for many beef and sheep farmers.

Normally we'd expect a dip in grass growth in July and August, but for many a steady supply of rain has kept rates up above 60kg DM/ha/day right through the summer – although head east towards the border and dry soils have limited growth to less than 30kg DM/ha/day. Delayed 2nd cuts pinched the grass supply for many, but once these aftermaths came back into the grazing platform most were able to build average farm grass covers well above 2500kg DM/ha by late August.

Grass quality has been an issue right through the year, with protein and energy levels lower than normal and frequent spells of low grass dry matters. Grass disease levels were high early in the season, and are likely to be a problem going into this autumn.

Hopefully many people have taken advantage of plentiful summer grass to reseed a few fields – although 2016 has also been a tricky year for sowing grass. Masses of slugs and leather jackets have posed a few problems – and cultivation windows have been brief. Still...next year may be easier.

Farming Connect has selected cross-sector farms located throughout Wales to measure and monitor grass growth. Technical data from all the trials at every Welsh pasture project participating farm can be found on our website businesswales.gov.wales/farmingconnect/information-hub/pasture-project

Armed with facts, this data should enable you to make informed management decisions and help you achieve optimum results from your grazing strategy.



WELSH PASTURE PROJECT SITE MAP →

JOHN OWEN

Gelli Aur, Llandeilo



Grass growth is up on average this year but quality is slightly lower. High growth rates early on in May and June meant the quality suffered then because we were grazing mature grass rather than when it was at its best quality.

Early season growth was slow but then we had a massive explosion of growth from May onwards. We had a bit of a shortfall around mid-July but it's picked up again now.

Our forage utilisation and all decisions are based on regular grass recording and managing growth rates. We record everything and work out grass availability, then take out paddocks or fields depending on whether there are surpluses.

SAM CAREY

Rhiw Las, Bala



This summer has seen phenomenal grass growth, we had a delayed spring that was quite hard to manage, but apart from that, growth has been excellent. We've managed to keep the quality as well through measuring each week – and taking paddocks out for silage if needed.

We measure weekly and use the grass wedge throughout the season to manage allocations

and avoid deficits and surpluses, and make sure covers are grazed at the three leaf stage. We use a grass budget in autumn to build cover and make sure we can graze late into the autumn.

Measuring grass is essential to the profitability of the business. If you don't measure it, you can't manage it.

RHODRI OWEN

Glynllifon, Caernarfon



At Coleg Glynllifon we certainly respect grass use since measuring regularly, targeting 3,000kg/DM/ha at turn in and 1,500kg/DM/ha post grazing. By utilising the grass at the correct stage we are producing more and find that we need to increase stocking rates.

It has been a very variable growing season, where growth rates have fluctuated significantly due to hot moist weather, heavy rain and some dry periods.

Sheep are mob grazed and we run a leader follower grazing system, and while measuring grass can be time consuming and there are training requirements for the equipment, software and grazing systems, you cannot manage what you don't measure.

ANDREW REES

Moor Farm, Walwyns Castle



This has been a relatively good year. It was a slow start but growth and quality has kept up since. Quality took a bit of managing through late May as the grass took off from a standing start. Growth isn't going to break any records but we should finish somewhere near average;

1300 kg DM/Ha less grass was grown between January and April this year compared to last year.

We've managed the growth by giving fresh breaks every milking and taking out surpluses as they occur. We pre-mowed the majority of the round in late May/early June which gave good leafy regrowth through into mid-summer.

DEWI JONES

Llysfasi, Rhuthin



There has been plenty of grass growth this year and it has been difficult to keep on top of it at times.

By measuring grass we are able to make better, more timely decisions and are making better use of grass. It also highlights which fields are performing best or less well. The stock also achieve a better yield from forage.

Our key strategies to manage forage this year have included a combination of cutting and grazing with some round baling of smaller areas of surplus grass and some topping. We have done some mowing pre-grazing but this has been limited due to the wet weather.

ELGAN DAVIES

Cefn Amlwch, Tudweiliog



Grass growth was quite poor at the beginning of the season because it was cold, but it's grown really well since then. The quality is not quite as good this year because the grass has grown so fast. The cows have been doing well this season, it's just been hard to manage the grazing platform and keep the quality because the grass has grown so fast.

To manage the grass this year, we've had to shorten the rotation so cows have been going back into fields quite quickly, after about 18 days. We've also taken surpluses out for silage, which we'd rather not do off the grazing platform, but it's been necessary for our grazing management.

EMYR OWEN

Bodrach, Carmel, Llanrwst



There was no real grass growth until mid-May, two weeks behind from last year and some fields have hit peaks of 70+kg/DM/day but the average is roughly 45-50kg/DM/day. We try and prioritise younger leys for hard grazing with twins, and mop up with barren ewes.

Although measuring can be very time consuming as I also work full-time off the farm, it is good being able to plan ahead and build up a picture of growth to budget for years to come.

Genomic testing of heifers

Andy Dodd AHDB (Dairy) Technical Manager - Breeding and fertility

The latest AHDB Dairy research shows that the average UK dairy heifer costs £1800 to rear from birth to first calving, with a staggering range of £1073 - £3070 per animal. Achieving the potential of each of these animals is vital to ensure they thrive in the chosen farm system and maximise profitability.

The introduction of Holstein genomics into the UK in 2012 gave farmers a more reliable way of selecting young bulls, doubling reliability from around 30% to 65+% but also gave them the opportunity to genomically test their youngstock with the same advances in science. At a cost of around £30 per animal, either a hair sample or ear notch (depending on service provider) can be taken at birth and sent for genomic testing to allow farmers to make more informed rearing and breeding decisions to maximise a heifers potential.

The results, usually returned within 6 – 8 weeks allow a farm to analyse each heifer's production potential and assess their strengths and weaknesses for health, fitness and linear

traits. The results include more reliable information on traits already available, including SCC and fertility but also new information, such as TB Advantage and in the near future mastitis, lameness and feed efficiency. This information can be used to decide from which animals to breed the future herd, which bulls to mate with the herd, and, if a farm has surplus heifers, which animals to sell on earlier before significant rearing costs are accumulated.

Until recently, genomics have only been available for Holsteins in the UK, British Friesians were introduced with the August 2016 proof run and international agreement has now been reached to share genotypes to allow UK genomics to be available for most other dairy breeds by late 2016/2017.

At Marian Mawr, the first heifer genomic test results will be back by 20 September, keep an eye on the Farming Connect website for further information.

www.gov.wales/farmingconnect



Aled Morris, Marian Mawr - Farming Connect Demonstration Farmer



SELECTIVE DRY COW THERAPY

Jamie McCoy, Dairy Technical Officer - Farming Connect

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Tyreglwyns demonstration farm is working towards reducing antibiotic use in the dairy herd, to reduce medicine spend and preserve the use of antibiotics for the future.

Geraint Thomas and family at Tyreglwyns take pride in producing milk of excellent quality and their low somatic cell count status offers the opportunity to reduce antibiotic use at drying off.

Working with their vet Stephen Davies, protocols for identifying which cows would be eligible for using a teat sealant only were developed. In the past every cow has been double tubed, using antibiotic and teat sealant at drying off – a practice which costs around £14 per cow.

Candidates for using teat sealant only have cell count of less than 120,000 at the 3 monthly milk recording sessions prior to drying off, and no cases of mastitis during that time. 80% of the herd were identified as being eligible under the above criteria, offering a saving of £7.40 per cow where dry cow therapy was not used. Multiplied across 80% of Geraint's herd this saves £977 per year.

Additionally cows with low SCC treated with sealant alone are 12 times less likely to suffer E.coli mastitis in the following lactation

than those which also receive antibiotics. A typical case of E.coli mastitis costs £180-£200, so there is significant cost saving as well as welfare benefit to SDCT.

Additional benefits of reducing the use of dry cow therapy include quicker inclusion of milk to the tank post-calving, as there is no residual antibiotic to account for. There is also less risk of exposing calves to low levels of antibiotic in colostrum, which can create antimicrobial resistance.

Using teat sealant only can be risky if the correct protocols are not followed. If there is any subclinical infection, sealing in the problem can be a serious health threat for the cow. Cleanliness at drying off is critical and careful observation following dry off is vital, monitoring signs of mastitis.

'All of the benefits of SDCT are dependent on the utmost cleanliness. The process needs to be carried out with excellent hygiene or the consequences can be both severe and costly,' says vet Stephen.

Tyreglwyns will be hosting an open day on selective dry cow therapy and showcasing cow cameras which have been installed for a new project. Join us on 23 Sept 11-2.30pm.

Sheep lameness and the 5 point plan

Dr Ruth Clements BVM&S MRCVS - Head of Veterinary Programmes FAI farms

Footrot and scald are the leading causes of lameness in sheep flocks in the UK. Lameness affects an estimated three million sheep at any one time (FAWC 2011), representing a significant animal welfare and economic challenge.

Lameness at an average prevalence has been estimated to cost a farmer approximately £10 for every ewe put to the tup, and in addition is a leading cause of antibiotic use in the sector. Ruth Clements at Food Animal Initiative (FAI) developed the **5 Point Plan for lameness** by collating academic research findings and best farming practice to create a set of practical, effective and synergistic measures to address lameness and allow farmers to work towards a situation where routinely seeing lame sheep in their flocks is a thing of the past.

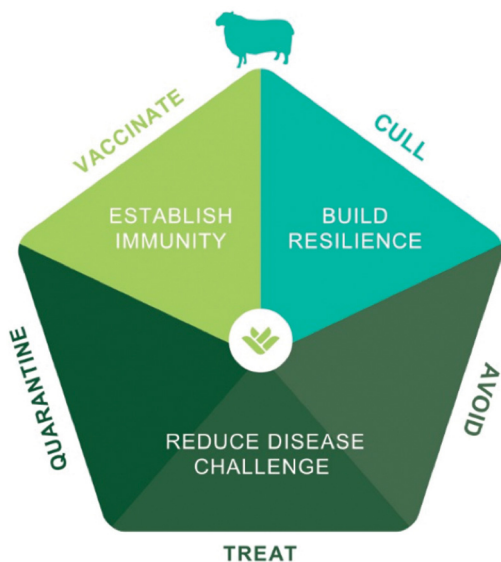
The Wales Animal Health and Welfare Framework Group have identified lameness as a key disease target for 2016/2017 in the sheep sector and in partnership with FAI have identified some key initial objectives and methodologies.

The programme, which is based upon the 5 Point Plan will be run in collaboration between Farming Connect and FAI Farms Ltd, and will begin with implementation of the lameness control programme on some key Demonstration and Focus farm sites. Farmers will be supported to identify how the 5 Point Plan could be implemented on their farms, and to produce a farm specific action plan to help them to achieve lameness control. Data will be collected to monitor progress and

identify important aspects such as how the 5 Point Plan affects the associated costs of lameness on the farms and what the effect is on antibiotic use.

The long term objective will be to work towards supporting more farmers in Wales to achieve lameness control in their flocks and for more of the industry to benefit from the huge potential in cost savings, reductions in antibiotic use and improvements in animal welfare that are central to the programme.

THE 5 POINT PLAN



Women in Agriculture Forum 2016



Farming Connect will be holding this year's highly anticipated
Women in Agriculture Forum at

**The Members Centre,
Royal Welsh Showground, Builth Wells, LD2 3SY**

on **Thursday, 29 September**

Women from across Wales will be invited to attend, and the event will include presentations from inspirational female speakers, including Lesley Griffiths, AM, Cabinet Secretary for Environment and Rural Affairs as well as Alwen Williams, Director for BT Cymru Wales.

For more information contact:

Carys Thomas - 01970 631402 - carys.thomas@menterabusnes.co.uk

ADVISORY SERVICE

Our Advisory Service provides a range of subsidised, independent, confidential and bespoke advice to farm and forestry businesses, as well as small or medium enterprises (SMEs) in the food sector.

One-to-one advice - funded up to 80%

Group advice - funded up to 100%

Visit our website or contact us for...

- A detailed list of all the categories of support/advice available
- Information on eligibility and funding
- A list of approved advisory companies and advice on selecting the most appropriate adviser(s)
- Simple step-by-step guidance on how to apply

<https://businesswales.gov.wales/farmingconnect/advisory-service>

Winter feeding beef cattle

Hefin Richards - Independent Dairy & Beef nutrition and management consultancy

Feed (including forage) makes up the biggest single cost in any beef production system, and therefore effective feed management gives the greatest opportunity to reduce production cost and maximise margins. Setting realistic growth targets, weighing and monitoring, and effective feed selection and rationing are key elements which should be a priority. There are three distinct phases to consider:

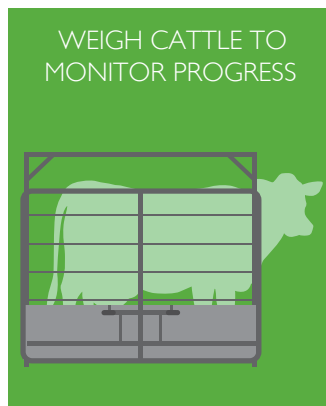
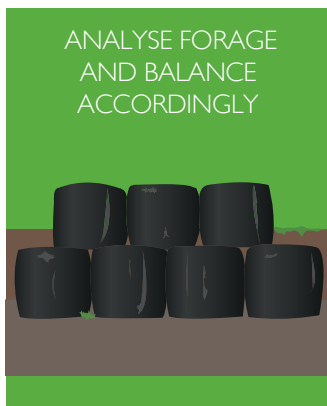
1. **REARING** – suckler calf with dam, or dairy bred calf through early life.
2. **GROWING** – varying timespan depending on sex, system and target age at slaughter.
3. **FINISHING** – increased energy requirement to get to target weight and level of finish.

The **REARING PHASE** is generally based on achieving high DLWG, but also developing a rumen capable of utilising forage and concentrates effectively in later life. Milk supply, access to suitable concentrates and quality forage, health status, and the general environment will play a large part in determining performance at this stage.

The **GROWING PHASE** is all about economically promoting frame growth, typically targeting around 1kg DLWG without over-conditioning animals. Forage quality (*both grazed and ensiled*) play a big part in this, and forage should make up 75-100% of the diet at this stage. Higher protein forages (*Clover/Lucerne etc.*) will help reduce total feed cost and help drive frame growth.

The **FINISHING PHASE** – starch is a key energy source for muscle development, so the use of cereals, maize silage and potato co-products should be considered for this final stage. More fibrous silage can be safely fed with a higher level of starch, and protein levels can be reduced. It may be worth considering an intensive cereal based diet at this stage, but beware of acidosis risk with low fibre diets.

KEY MESSAGES



EVENTS

SUCCESSION SURGERIES

To help farm and forestry families learn more about the issues involved in succession planning.

DATE	LOCATION <i>(location details confirmed with appointment)</i>
22/09/2016	Brecon
26/09/2016	Llanrwst
13/10/2016	Mold

IT SURGERIES

At the IT Surgery, you will receive a one-to-one appointment with an experienced IT mentor and have support on how to enhance your IT skills.

DATE	LOCATION <i>(location details confirmed with appointment)</i>
21/09/2016	Pandy

BUSINESS REVIEW SURGERIES

Developing, implementing and evaluating plans for your business with an experienced business consultant to help expand and strengthen your business.

DATE	LOCATION <i>(location details confirmed with appointment)</i>
27/09/2016	Carmarthen
26/10/2016	Denbigh
03/11/2016	Welshpool

MARKETING AND DIVERSIFICATION SURGERIES

At this surgery you will receive personalised marketing advice by a business consultant who specialises in marketing and diversification of agricultural businesses. Suitable for all levels.

DATE	LOCATION <i>(location details confirmed with appointment)</i>
30/09/2016	Monmouth
07/10/2016	Bangor
19/10/2016	Pembroke

BUSINESS PLAN WORKSHOP

These half-day fully funded workshops will help farmers and foresters to master the basics of preparing a business plan which is tailored to their own business requirements.

DATE	LOCATION <i>(location details confirmed with appointment)</i>
12/09/2016 & 30/09/2016	Brecon
23/09/2016 & 07/10/2016	Pencoed
28/09/2016 & 21/10/2016	Tregaron
29/09/2016 & 06/10/2016	Ruthin

All surgeries take place between **9am** and **5pm** - booking is essential.

For further information, contact **Mali Griffith** - 01248 660074 - mali.griffith@menterabusnes.co.uk