THE MAGAZINE FOR FARMING & FORESTRY IN WALES

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Early detection key to protecting calves from health impacts of pneumonia

The Jones family run a herd of 50 spring-calving suckler cows at Cefngwilgy Fawr, Llanidloes.

Mycoplasma bovis was first diagnosed as the cause of pneumonia three years ago and cases have since peaked at 25% of the herd's calves.

"It is our only stumbling block," said Edward Jones, who farms with his wife, Kate, and father, Gareth.

Early detection is vital as once an infection takes hold it can be difficult to treat therefore in their role as Farming Connect demonstration farmers the Jones' are trialling ear tags which measure activity and temperature: these aim to detect illness up to three days before visual signs appear.

If infection is caught in the first two-to-three days, calves are much more likely to recover fully.

The tags were fitted in April 2021 and the results so far had been mixed, Kate admitted.

"The tags have been picking up some cases, and they also picked up one calf with coccidiosis, but whether they are financially viable or not for a commercial beef herd like ours is a hard one to work out," she said.

"If you had a pedigree herd, something high end, the system could be worth looking into."

She believed the technology did have potential as it developed further though.

The Jones' are hoping that the tags and prompt treatment will reduce incidence of pneumonia to 5%.

Pneumonia can have one of the biggest effects on the productivity and profitability of beef herds.

Vet George Roberts, of Hafren Vets said managing calf health and nutrition immediately from birth is key.

To provide vital immune defence, he advised feeding four litres of high quality colostrum within two hours of birth and to follow that with another four litres in the next 24 hours.

Test colostrum with a refractometer or a colostrometer to ensure it is of sufficient quality and ensure that all utensils used for feeding are exceptionally clean.

"Colostrum is a fantastic breeding ground for bacteria. If it is left standing in a bucket for two hours, it has the real potential to make a calf ill," said Mr Roberts.

A calf should receive 15% of its bodyweight in milk every day and, for every 5°C drop in temperature, another one third of a litre should be fed, Mr Roberts advised.

Offer fresh clean water at all times from birth and, from two weeks, offer creep, straw or hay to nibble on, to help the gut mature and boost feed conversion ratios.

"The more forage and solid feeds you can get them eating before weaning the better their growth post weaning, and the weaning process will be less stressful," said Mr Roberts.

If there is an outbreak of illness in young calves, blood testing calves between birth and seven days old to check for

KATE AND EDWARD JONES
Cefngwilgy Fawr, Llanidloes

levels of antibodies can be a good means of establishing if they are getting sufficient protection from colostrum.

If they are, infection pressure could be the cause of illness and vaccination should be considered.

Some vaccines can be given as early as a couple of days old, which helps to provide early protection. In some cases, vaccinating the cows to provide protection to their calves through colostrum is indicated.

"Vaccination is expensive but not as expensive as dealing with a big outbreak of pneumonia," Mr Roberts pointed out.

A calf's environment is important for supporting health.

Bedding must be clean and of sufficient quantity for a calf to nest in it – its legs should be hidden when it is lying down.

Stocking density, air quality and temperature are all important considerations for a healthy herd.

RHWYDWAITH ARDDANGOS DEMONSTRATION NETWORK

For further information on this project, please visit the Farming Connect website: gov.wales/farmingconnectourfarms

Making improvements to sheep management and housing has helped a sheep farmer cut the mastitis rate in his flock by a third

Mastitis had been a major cause of losses in Ryan Morris' flock of nearly 1,000 ewes at Maestanyglwyden near Oswestry.

Around 10% of the flock (90-100 ewes) would get mastitis every year.

"We had problems throughout the year, although the spring was the worst time," says Mr Morris, who took on the farm from his grandfather five years ago and now farms with his partner, Rebecca Greaves.

Milk sampling had shown the presence of the mastitis-causing bacteria, *Staphylococcus aureus (S. aureus)* and *Mannheimia haemolytica.*

Farming Connect supported an on-farm trial alongside the farm's vets, Cain Farm Vets, to establish the factors influencing the high incidence of mastitis and to help inform a plan to reduce incidence rates.

The trial monitored the mastitis incidence rate in 500 twin-bearing ewes from the March-lambing flock.

Blood sampling was used to assess flock nutrition three weeks before lambing; this established that the diet was meeting the protein and energy requirements of the ewes during late gestation.

Ewes were vaccinated with Heptavac P, a clostridial vaccine containing *Mannheimia haemolytica,* and a booster administered four weeks before lambing.

Mr Morris made several improvements to his housing to reduce stocking density – floor space was increased by a sixth to reduce the pathogen load within the shed.

The number of dedicated small pens for freshly-lambed ewes was increased so that ewes could be moved out of the main lambing area into clean pens within two hours.

Close attention was paid to cleanliness – all staff wore arm-length disposable gloves for lambing and short gloves for jobs such as putting lambs to suckle, to reduce the risk of bacteria spreading between sheep and onto teats.

When the study concluded in July 2021, the overall mastitis rate was found to have reduced from 10% to 6.8%.

Alana Jackson, of Cain Farm Vets, the vet who instigated the trial, puts this down to a combination of factors, notably reduced stocking density and improved hygiene.

"Reducing the pathogen load that ewes are exposed to at the point of lambing, when their immune system is most suppressed, will have had a big effect," she advises.

Continuing to feed ewes up to peak lactation and until six weeks after turnout, will also have helped by ensuring milk production was sufficient, she adds.

If a ewe isn't producing enough milk, lambs will suckle more frequently and this can cause teat damage, increasing the risk of a ewe developing mastitis.

Ms Jackson says mastitis in ewes is more of an issue on some farms than others.

"It is a multi-factorial disease which makes control difficult," she admits.

"This on-farm trial just shows that 'tweaking' several aspects of management in the flock has had a positive effect. However, there is no 'silver-bullet'."

Vaccinating for mastitis

Another part of the trial was to vaccinate ewes with a vaccine that protects ewes from mastitis caused by *S. aureus*.

Half the study group was vaccinated.

Ms Jackson says analysis of the data showed that there was no statistical difference in mastitis rates between the vaccinated and unvaccinated groups in this small trial.

But she warns against drawing conclusions from this due to the study only involving 500 ewes.

"The positive effect of the vaccine may be subtle, and having more ewes in the study may have shown that vaccinated ewes did have a significantly reduced mastitis incidence rate," says Ms Jackson.

She believes that boosting the ewes' immunity to S. aureus with the vaccine will have improved immunity.

	Vaccinated	Unvaccinated	Total
Average BCS	3.53	2.86	–
Total number of ewes	225	214	439
Number of cases of mastitis	14	16	30
% of mastitis cases	6.22%	7.48%	6.8%

Table 1. Mastits cases in vaccinated and unvaccinated ewes at Maestanglwyden in July 2021

FARM FACTS

- 162 HECTARES FARMED
- TEXEL-CROSS, MULE AND BELTEX-CROSS FLOCK
- MAIN FLOCK SCANNING AT 195%
- EWE LAMBS SCANNING AT 145%
- FEBRUARY – APRIL LAMBING
- LAMBS SOLD LIVEWEIGHT AT WELSHPOOL AND OSWESTRY MARTS

RHWYDWAITH ARDDANGOS DEMONSTRATION NETWORK

For further information on this project, please visit the Farming Connect website: gov.wales/farmingconnectourfarms

Bodwi – Demonstration Site

Demonstration Site: Bodwi, Mynytho, Pwllheli, Gwynedd

Technical Officer: Non Williams

Project Title: Revising the bull beef enterprise by exploring the potential benefits of homegrown crops

Project introduction:

Fluctuating beef prices as well as the increasing cost of purchasing concentrates has resulted in exploring the potential of finishing bull beef on a diet based on homegrown feeds at Bodwi.

The aim of this project is to determine the effect of adapting the feeding system (i.e. growing and feeding spring barley) on the profitability of the bull beef enterprise, as well as the farm's environmental sustainability.

Project results:

The 2020-2021 bulls were slaughtered at 13-15 months old and bull performance was monitored from weaning up to finishing. During this period, the bulls were fed on treated barley (most of which was homegrown, with additional treated barley purchased to take them to slaughter), silage and minerals. The total liveweight produced for 69 bulls from weaning to slaughter was 23,805kg. This equates to an average of 345kg per head. To note, this figure was not directly compared with that of the previous year, as in 2019-20, the cost of production was calculated from the beginning of January (at which point a proportion of the bulls were sent to a specialist unit) up to finishing, as opposed to from weaning onwards.

Nevertheless, the cost of production has been compared to that of the previous year, calculated as the average cost per kg liveweight gain (LWG) (Figure 1). Finishing the bulls on homegrown barley and silage in 2020-21 worked out to be a saving of £0.45/kg LWG on the cost of finishing on purchased concentrates and straw on-farm in the previous year.

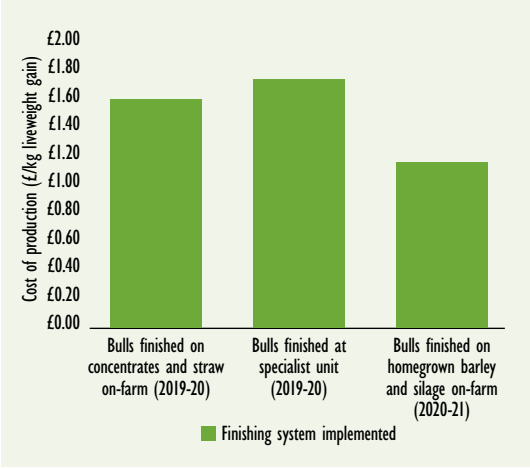


Figure 1: The average cost of production (£/kg LWG) of each finishing system compared in 2019-20 and 2020-21.

All data on feeding inputs, along with extensive data from other enterprises on the farm are currently being inputted to a carbon footprinting tool to determine the effect of various feeding strategies on the farm's carbon footprint.

For further information on this project, please visit the Farming Connect website: gov.wales/farmingconnectourfarms

RHWYDWAITH ARDDANGOS DEMONSTRATION NETWORK

RHAGORI AR BORI
PROSPER FROM PASTURE

Prosper from Pasture application window now open


Carys Jones

Welsh farmers are fortunate to be farming in a country with suitable soils and a climate to grow high volumes of quality grass. Producers in Wales must utilise this valuable resource to strengthen the sustainability of their livestock enterprises to their full potential.

The imminent changes to farm support systems and the potential for increased product price volatility has heightened the need to look at ways of reducing costs by efficiently utilising our most cost-effective livestock feed.

Prosper from Pasture is a short programme with three levels that aims to develop your knowledge and confidence in grassland management – Entry Level, Intermediate – also known as Master Grass, and Advanced.

More information about each level can be found on the Farming Connect website: gov.wales/farmingconnect/land/grass/prosper-pasture

The application window will be open from 1 November 2021 until 30 November 2021.

To apply for the 2022 Prosper from Pasture programme, each individual must complete an Expression of Interest form, available on the Farming Connect website and confirm that their business has a valid Nutrient Management Plan.

Expressions of interest are individually assessed and you will need to determine what level best suits you and your business to improve the future of your pasture-based livestock systems.

After completing the Entry level, it is possible to progress to the Intermediate level, and after completing the Intermediate level, it's possible to then progress on to the Advanced level.

Embarking on the Prosper from Pasture programme has given Carys Jones, a beef and sheep farmer from Carregcynffyrdd near Llandeilo, the confidence to try different grazing techniques.

"Even though I had seen these systems work in New Zealand I didn't have the confidence to apply them here because of a fear of getting it wrong."

"We are in the early stages of changing our system, but we are definitely growing more and better-quality grass and that grass isn't being trampled as it might be with set stocking, we hope in the near future we'll be seeing the benefits and we can put a firm figure on cost benefit and savings on fertiliser and purchased feed."

The Farming Connect Knowledge Exchange Hub

The Farming Connect Knowledge Exchange Hub (KE Hub) is based at IBERS, Aberystwyth University. Our colleagues there are playing an important role in providing farmers with the latest information from scientific research.

Managing peatland for carbon storage

Dr William Stiles from the Farming Connect Knowledge Exchange Hub explains why peat is such a valuable resource and the important contribution it can make to combatting climate change. Wales contains significant stocks of peatland and, through some careful interventions, it offers the potential to act as a vital carbon reserve.

Peatland systems are carbon stores of significant national and international importance. They are the largest terrestrial carbon store, and hold more carbon than all other vegetation types in the world combined, including forests. They cover only three percent of the global land surface, but contain more than 550 gigatonnes of carbon, which represents 42% of all soil carbon.

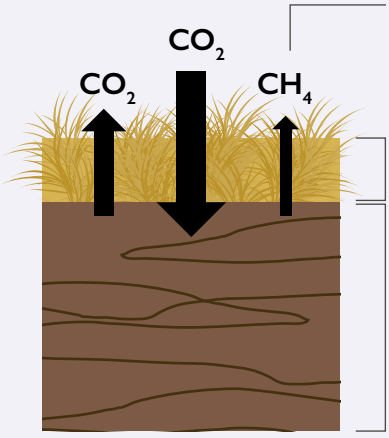
Peatland environments are a type of wetland, which includes bogs. Plant material decomposes very slowly in these waterlogged environments, meaning the carbon in the plant biomass is captured and sequestered as it forms peat. Peat builds slowly (~1 mm per year), but over millennia this material can accumulate in some environments to become several metres deep. As such, peatlands are considered highly significant with regard to global efforts to combat climate change. Peatlands which are inappropriately managed will become sources of carbon and can emit significant amounts of greenhouse gases (GHG), with highly negative consequences.

Improved peatland management is therefore a key component of future climate-friendly land management approaches, to avoid this effect. The restoration of peatland systems, degraded through modification in order to support food and fibre production, will be essential to return these systems to carbon sinks rather than carbon sources. This will involve blocking drains and rewetting bogs, which may increase methane emissions in the short-term. Nevertheless, this is an essential action to return this habitat to functional status. Moving production away from such sensitive environments, allowing them to act as carbon sinks, once returned to functionality, can allow production to happen elsewhere, offsetting the overall impact of necessary food production.

Rapid and extensive changes are required economy-wide in order to meet the challenges of reducing GHG emissions to net zero by 2050, and limiting the impact on environments such as peatland is likely to constitute a priority goal. Climate change presents a major challenge and threat to the land management sector. The size and scale of change needed is daunting, but is achievable. And, if actioned appropriately, these actions may have the potential to provide solutions for multiple challenges currently threatening this industry. Regardless, inaction will result in a scenario where food production may become increasingly challenging. Reducing the impact to environments such as peatland offers a relatively straightforward opportunity to instigate climate-friendly land management, with only limited change needed in current land management approaches.

How do peat bogs capture carbon?

Some carbon dioxide (CO_2) is released as plants respire and decompose but most is trapped in anaerobic conditions



Methane (CH_4) is released as plants decompose under anaerobic conditions

Vegetation – Sphagnum moss and grasses

Peat accumulates under wet anaerobic conditions meaning the carbon is held in situ rather than escaping

EIPWALES
Cydweithio er ffyniant gwledig
Collaborating for rural success

Overmilking indicated as one of the biggest factors affecting dairy herd udder health

Huw Morgan and Dr Sotirios Karvountzis of Mendip Vets

Four dairy farmers in Carmarthenshire with an average herd size of 260 cows have been working closely with Dr Sotirios Karvountzis of Mendip Vets, Llandeilo to investigate the benefits of a dynamic testing routine when working towards improving udder health by reducing bactoscan levels and instances of subclinical and clinical mastitis.

Dynamic testing is carried out by their vet, Dr Karvountzis every two months on each farm. A simple way to describe dynamic testing is to compare the testing of a milking machine with road testing a car. Dynamic testing is where we are looking for issues that can damage the cow udder under pressure of real conditions, which any other type of static milking parlour test would not identify.

What's monitored through dynamic testing:

- Bulk tank somatic cell counts and bactosan
- Poor flow away from the cow
- Clinical mastitis incidence
- Poor liner fit
- Mastitis antibiotic treatment use
- Liner slip
- Biphasic milk flow
- Teat scoring
- Overmilking
- Milk plant pulsation

"A static test does not test if the Automatic Cluster Removal (ACR) is not timed correctly. Although some parlours are now computerised, parlours with increased automation cannot always check if the pulsators are working correctly, for example, hence why the dynamic testing is more suitable for preventing issues with udder

health", says Dr Karvountzis.

Dynamic testing also includes the examination of a sample of cows for any abnormal teat-end configuration, such as any signs of hyperkeratosis.

One of the main contributing factors of poorer udder health that has been highlighted from the project to date is overmilking. Overmilking takes place when the cow has the milking units (and therefore vacuum) on her udder for longer than is required. During overmilking, the machine is milking at full vacuum with low or no milk flow. The primary causes for this is when the ACR is set to remove the milk units at too low a milk flow (e.g. 200ml/min), or the delay in pulling the milk units off the udder and cutting the vacuum off the milk liners is set too high (e.g. over 10 sec).

The pre-milking preparation of the cow has also been highlighted as an area where dynamic testing has led to resource efficiencies and increased productivity. This is related to the physiology of milk let-down of the cows.

"The cow requires stimulation of the teat by either pre-dipping, fore stripping or cleaning of the teats or the sound of the concentrate feed hitting the feed bins, as they enter the parlour. This stimulation results in oxytocin being released and therefore the milk being let-down. Pre-milking preparation and its timing is very important because if timing from teat preparation to unit attachment does not coincide with the milk let-down, there will be a temporary cessation of milk flow which is referred to as bimodal let-down", says Dr Karvountzis.

"With proper stimulation, unnecessary vacuum application at the teat-end can be avoided and less trauma is caused to the teat ends, improving udder health. Adequate stimulation pre-milking optimises the unit on time and therefore reduces the time taken to milk each cow, leading to resource efficiencies being achieved," he explains.

Huw Morgan, who farms with his parents, is one of the four farmers taking part in the project.

"I farm at Twyn Farm, Nantgaredig near Carmarthen with my parents. It's a 93 hectare (ha) farm with a 160 spring calving flying herd. This is our eighth season of milking as we were a beef and sheep farm before", explains Huw.

"Our next step is to increase cow numbers up to 200 and improve our facilities. We wanted to take part in the project because we are a low input, low output system so maximising profits from our cows is important and we saw the project as a chance to 'fine tune' the system and a good chance to get healthier cows meaning less antibiotic usage, which is important to everyone. Healthier udders, healthier milk, healthier cow, healthier bank balance."

For further information on this EIP project, please visit the Farming Connect website: gov.wales/farmingconnect

Plas yn Iâl – Focus Site

Focus Site: Plas yn Iâl

Technical Officer: Dafydd Owen

Project Title: Continuous Cover Forestry (CCF) in farm woodlands

Project introduction:

In early December 2020, 10 sample plots were set up in the 12.76ha area of woodland at Plas yn Iâl as part of an Irregular Silviculture Network (ISN) research stand. An ISN Research stand is designed to sample the farm woodland to record the woodland types, species composition and the productive capacity of the woodland. The sample plot locations were chosen to gather the wide range of variation in woodland types.

The main result of the data gathered showed that the woodland volume is increasing at an estimated volume increment of 7.19m3/ha/yr. This equates to approximately 90 tonnes of timber per year, having an energy equivalent of 178,365kWh/yr. Their wood fuel demand is approximately 28,000kWh/yr, which means that introducing Continuous Cover Forestry (CCF) as a silvicultural management technique could provide 76 tonnes or 150,365kWh of saleable timber annually. CCF is where individual trees are extracted to maintain permanent woodland cover while allowing the production of commercial timber hand in hand with biodiversity as a product.

The next stage of the project was to undertake a remote sensing trial of the woodland. By using a Digital Surface Model and a Digital Terrain Model, the Canopy Height Model (actual height of the trees relative to the ground) was estimated. In addition to this, the canopy cover was estimated to calculate volume of the woodland's compartments.

The objective of the remote sensing trial was to compare it with the results of the ISN survey and highlight the potential of its cost-effectiveness in understanding farm woodland structures over larger areas. Data from both surveys were also combined to create a CCF Woodland Management Plan.

The main conclusion of the remote sensing trial was that it can provide very accurate stem counts for conifer plantations due to its ability to differentiate between different crowns. At Plas yn Iâl, broadleaves are the dominant woodland type, therefore stem counts were difficult to calculate at times. Despite this, results provide evidence of the usefulness of remote sensing to assist in assessing transformation to CCF.

Following the writing of a Woodland Management Plan and the issue of a felling licence, the stands will be managed in transformation to CCF to meet the local demand for wood fuel and to produce high quality, sustainable timber.

For further information on this project, please visit the Farming Connect website: gov.wales/farmingconnectourfarms

To sell or not to sell my carbon credits?

The future for support payments will be changing with focus on payments for public goods, which, on-farm, will aim to protect and improve biodiversity, carbon sequestration and create provision for ecosystem services.

The investment in green infrastructure will provide the ability to increase carbon sequestered which will be essential in terms of reducing the farm's environmental footprint and improving business performance.

But do we know what resources we have available on-farm now to make the necessary decisions? Planning and implementing a carbon audit now can identify a baseline to justifiably demonstrate that management practices are working to lower emissions whilst protecting and increasing carbon stocks.

For businesses who are sequestering carbon through new woodland establishment or restoring peatland, the amount of carbon sequestered can be calculated and quantified in the form of carbon credits. A carbon credit is a tradeable certificate representing the right to emit one metric ton of carbon dioxide (CO_2) and verified carbon accrued can be sold to other businesses seeking to offset their own carbon footprint.

Prior to verification of the carbon credits they are known as "Pending Issuance Units" (PIU's). This is effectively a 'promise to deliver' a Carbon Unit in future, based on predicted growth. It is not 'guaranteed', and cannot be used to report against UK-based emissions until verified and converted to a carbon credit. There are companies that purchase PIU's but at a fraction of the trading price for verified carbon units.

Information about carbon markets can be challenging to navigate because each broker company might have a different structure for payments, verification and contracts. Farmers considering selling carbon credits are advised to carefully consider all marketplaces and ensure they understand the terms and conditions of participating prior to signing any contract.

Above all, farmers should consider their own net zero goals and implement a carbon audit prior to any proposed sale of verified carbon units, as they might need them to reach their own net zero target.

With the growing pressure on the agricultural sector to improve its environmental performance and at the same time remain sustainable, Farming Connect have a range of resources and services relating to carbon.

For more information, please visit the Farming Connect website: www.gov.wales/farmingconnect

Geraint Jones, Forestry Technical Officer, Farming Connect

Dairy farm aiming to cut night calvings supported by Farming Connect project

A Denbighshire dairy farm is adapting its dry cow management and feeding strategy in a bid to reduce night time calving.

Bryn Farm, Tremeirchon, is shifting the calving pattern in its 90-cow herd from an all year round system to an autumn block and that could be challenging on the family-run system if a high proportion of the cows calve during the night.

Aled Potts, who farms with his uncle, Dilwyn Hughes, is working with Farming Connect on a focus site project to examine if changes made to management and diet in the transition period can increase the number of cows that calve during the day, when labour is more readily available and when more attention can be given to the cow and feeding colostrum to the new born calf.

During a recent webinar, Farming Connect dairy technical officer for north Wales, Rhys Davies, said there were multiple benefits from having a high proportion of the herd calving during the day.

Newly calved cows can be individually penned sooner, allowing feeding to take place promptly and therefore, reduce post-calving metabolic problems.

There is also the advantage of colostrum being quickly taken from the cow and given to the calf and the colostrum being of higher quality.

Pressure on farmers is reduced due to less sleep disruption and there are more opportunities for staff to be present during the day to spot any issues.

At Bryn Farm, cows that are three weeks from calving are being offered fresh forage during the mid to late afternoon while the close-up group is restricted from feeding between 12:00 and 18.30, with access to a straw yard and water only. Dry cow rolls are offered along with ad-lib access to forage from 18.30 onwards. Enough feed space is critical during this feeding period and a minimum of 85cm/cow feed space should be available across the barrier.

Cows will be followed throughout the lactation to compare yields, fertility and any metabolic issues between cows who calved at different times during the day.

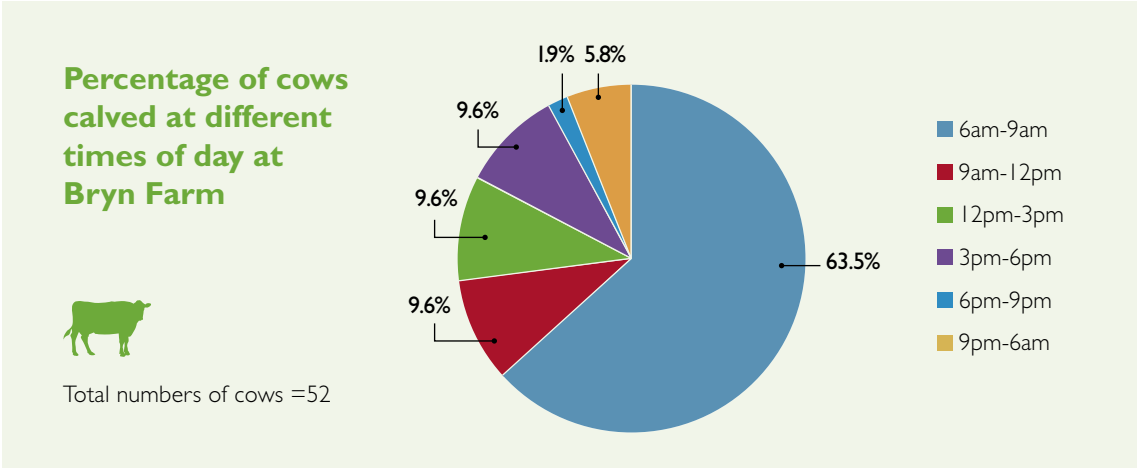
Ruminant nutritionist William McNiece, of Massey Feeds, who has been advising on nutrition at Bryn Farm for four years, is providing input into transition management.

At the webinar Mr McNiece said that there is huge pressure on the cow at calving, from a combination of diet change, giving birth and producing milk.

"When a cow produces 30-35 litres of milk a day she is using the equivalent amount of energy as a human is running a marathon, and she is doing that every day," he said.

To prepare the cow for this, a body condition score (BCS) of 3.25-3.5 must be maintained for 100 days before drying off.

"Gaining condition during the dry period is a fool's game because cows lay down fat around the internal organs," said Mr McNiece.



Graph 1. % of cows calved at different times of the day up to 22 October at Bryn Farm.

He urged farmers not to forget the low yielders. "There can be a tendency to provide them with grass and 2kg of cake and leave them to get on with it but management needs to be more careful than that."

Checking mineral status is vital, because if concentrate intakes are reduced, so too will the mineral provided through this feed route.

"Take bloods and check the cow's mineral status to adapt her mineral intake for the next lactation," said Mr McNiece.

Optimising dry matter intake (DMI) in the dry period is important because, the more a cow eats, the more BCS she will hold onto and the more milk she will produce post-calving.

"There are massive links between DMI in the calving period and DMI post-calving," Mr McNiece explained.

"A DMI intake of 13-14kg in the transition period is worth an extra 1-2 litres at peak lactation. That is an easy financial win."

He recommended separating at-risk cows prior to calving and feeding them appropriately – these might be cows that are lame or over-conditioned. "Take the stress off them," he added.

Diet in the dry cow period has the most influence on milk fever prevention.

Mr McNiece favours feeding a negative dietary cation to anion difference (DCAD) diet in the close-up period or calcium binders.

RHWYDWAITH ARDDANGOS DEMONSTRATION NETWORK

For further information on this project, please visit the Farming Connect website: gov.wales/farmingconnectourfarms

E-LEARNING

November MODULES OF THE MONTH

Our e-learning interactives cover a wide variety of topics which will help you develop new and existing skills, acquire more knowledge and improve working practices within your business.

LAND
Benefit of Trees on Upland Farms
Climate Change and Land Management
Invasive Species

SHEEP
Grassland Species
Grazing Livestock on Fodder Beet
Liver Fluke Control in Sheep

BEEF
Farmyard Composting
Liver Fluke in Cattle
Respiratory Disease in Cattle

DAIRY
Calf Scours
Grazing Systems
Improving Soil Health

To see the full list of modules and the comprehensive user guide on completing e-learning modules, please visit gov.wales/farmingconnectskillsandtraining

"I found it such an easy way to acquire more knowledge, always pitched at just the right level and letting me learn at my own pace."

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- Learn how to get the most out of emails, saving and sending documents, Microsoft Word, Excel, searching the internet, social media marketing, navigating RPW online and much more.

Develop your computer and web-based skills, develop your confidence!

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Mrs W Mold

"Very patient tutor. Very helpful."

Mrs G Clynderwen

Visit the Farming Connect website or call your local Farming Connect development officer TODAY.

gov.wales/farmingconnectskillsandtraining

A waterlogged field

Control of Agricultural Pollution Regulations

The Water Resources (Control of Agricultural Pollution) (Wales) Regulations 2021 – When to spread fertiliser?

Winter weather conditions increase the risk of pollution from the inappropriate spreading of both organic and manufactured fertilisers. The Control of Agricultural Pollution regulations place requirements on the spreading of both organic and manufactured fertilisers. These requirements are in force now and you must comply with the regulations.

A steep slope with a watercourse at the bottom

Slurry applied to snow covered ground

Before spreading any fertilisers, a field inspection must be undertaken to consider the risk of nitrogen from fertilisers getting into surface water. You do not need to record your field inspection, however spreading of nitrogen fertiliser may not take place if there is a significant risk of nitrogen getting into surface water. Taking into account in particular:

- the slope of the land, particularly if the slope is more than 12° (equivalent to "20%" or "1 in 5"),
- any ground cover,
- the proximity to surface water,
- the weather conditions,
- the soil type, and
- the presence of land drains.

Fertiliser must not be spread if the soil is waterlogged (as defined in the guidance), flooded or snow covered, is frozen or has been frozen for more than 12 hours in the previous 24 hours.

Organic manure must not be spread within 50 metres of a borehole, spring or well or within 10 metres of surface water (6m if precision spreading).

The closed period for the spreading of manufactured nitrogen fertiliser currently applies for both grassland (from 15 September to 15 January) and tillage land (from 1 September to 15 January). Exemptions apply, please see guidance for details. Manufactured nitrogen fertiliser must not be spread within 2 metres of surface water.

Poultry manure, slurry and liquid digestate applied onto the surface of bare soil or stubble (but not sown) must be incorporated into the soil as soon as practicable, and within 24 hours at the latest, unless precision spreading equipment is used.

Detailed guidance can be found at:
gov.wales/land-management

PARTNERIAETH DIOGELWCH AR FFERMYDD CYMRU

WALES FARM SAFETY PARTNERSHIP

HSE Farm Safety

Handling livestock

Every year, many of the deaths on farms happen because farmers become complacent and do not take precautions to make sure they are protected against livestock.

When you are working with livestock think about what increases the risks

1. **Select and use well designed handling facilities in the yard, buildings and field. Keep them maintained.**
2. **Never enter an enclosure with a loose bull or when an unrestrained cow is with a calf.**
3. **Wherever possible separate livestock from the public and select fields without rights of way when cattle have calves at foot.**

NEVER ASSUME ANIMALS ARE GOING TO DO WHAT YOU EXPECT THEM TO DO

www.hse.gov.uk/agriculture

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