Focus on improving business profitability by harnessing renewable energy

A recent focus site project at Trebared Farm, Cardigan, focused on the cost savings and environmental benefits involved in integrating renewable energy into a dairy farm. During the last decade, Trebared Farm has installed solar, wind and biomass renewable energy on the farm.

Three and a half years ago, the Phillips family were paying £14,000 a year to their electricity supplier. This bill has reduced to £7,000 since the farm invested in a 30kW solar system, a 20kW wind turbine and a biomass boiler. The family, who run a herd of 200 Holstein Friesians, invested around £250,000 in renewables. They calculated that these will pay for themselves in less than seven years because they have a Feed-In Tariff (FIT) worth 19p/kWh.

During the project, a data logger was used to monitor use over an eight-day period in late 2018. The results from this data logger identified that the system was unbalanced. This meant that the Phillipses were buying in electricity when they didn’t need to and at the same time had exported almost one third of their renewable generation back to the grid.

The annual cost of electricity on an average size dairy farm is typically £55-£70/cow, however, this can vary between different systems. As well as reducing electricity costs, on-farm renewable energy has the capacity to reduce the farm’s carbon footprint.

Key Project Outputs:

- Identify opportunities to improve efficiency
- Contribute towards reducing the farm’s carbon footprint
- Increase profitability by ensuring maximum utilisation of on-farm renewable resources

Agri Academy

The Agri Academy’s Business & Innovation and Junior programmes inspired its members with study visits to the Netherlands and Iceland to look at novel ways of working, new business models and to inspire entrepreneurialism and foster leadership skills.

Innovative businesses and organisations visited in the Netherlands included:
- Floating Dairy Farm
- Vencomatic Group
- Tulip Farm
- Lely

Innovative businesses and organisations visited in Iceland included:
- Efstidalur II Farm Hotel
- Restaurant & Ice Cream
- Friðheimar Tomato Farm
- Icelandic Lamb
- Uppspuni Wool Mill

A new project titled ‘Developing a novel way of rapidly measuring agronomic treatment effects on grass growth’ commenced during this period.

More emphasis is being put on measuring grass to determine feed stocks and stocking rates to increase business efficiency and income. However, this can be a laborious and time-consuming task to undertake with a plate meter. Three dairy farmers in Monmouthshire are investigating whether satellite and drone imagery can be a quicker and more cost-effective method of measuring the effects of different agronomic treatments on their fields.

Updates will be provided on the Farming Connect website as the project progresses.

Surgeries

23 SURGERIES HELD with 158 ATTENDEES

A business with a caravan site adjacent to the farm attended a surgery. The site was already established but they wanted advice on how to market the business and to promote their business on social media. The feedback received after attending the surgery was:

“I have learnt more on marketing techniques as well as what to do and what not to do to promote my business.”

Advisory Service

Number of business who have received support through the Business Category of the Advisory Service during this period.

146 individuals received one-to-one support through the Business Category of the Advisory Service during this period.

14 groups received support through the Business Category of the Advisory Service during this period.

Feedback from businesses regarding the delivery of this advice:

“The advice we received will help the business withstand the pressures of the current economic downturn in the dairy industry. We would also be interested in further training and group training.”

“It is always useful to have a fresh pair of eyes look over the business, not only to bring new ideas and suggestions of how things can be improved, but also to confirm some of the current approaches are correct. When you work hard in a business that is fairly isolated, there is always a danger you can let performance slip without realising it. I am a great believer in the benefits of periodically bringing external advice and scrutiny to avoid this.”
Chris Brooks of Westflight visited two Ceredigion discussion groups to focus on energy consumption. Chris explained the process that went into getting the energy from where it’s generated to individual farms, and a few of the members had a surprise at the amount of various businesses that the energy was linked to before arriving on-farm. Chris shared a few statistics in relation to the dairy industry, sourced from 20 years’ worth of AHDB figures. Overall, it showed a reduction of about 15.6% of the average milking herd, however, average yield had increased by about 23.5%. Although, total yield had only increased by 4.3%.

The milk price in 2000 versus the present day hadn’t changed very much, with a brief overview describing the Cost of Production in 2017/18 being 4.2% vs 3.9% today. He explained that the cost of electricity has increased 70% in the years 2000 – 2019. He forecasted that purchased energy costs will continue to rise, possibly even at the cost of 0.25+ per kwh by 2025. Chris asked the group to consider whether their milk price would increase at the same rate. The discussion groups then undertook an exercise on the pence per litre of electricity costs and benchmarked between them the cost of their electricity, which was a surprise to a few of them. Chris went through all elements that were included in an individual bill to ensure that the farmers understood exactly what they were paying for.

### Agrisgôp

Working together within a group, Agrisgôp members can learn new management skills, access specialist information and explore and develop viable futures for themselves, their families and their businesses.

- **70** active groups
- **532** members
- **97** meetings
- **Producing cider**
- **From farm to plate**
- **Renewable energy**
- **Diversification**

### Case Study

**Beef farmers take control of supply chain with Agrisgôp support**

Collaboration is allowing three west Wales-based Beef Shorthorn breeders to add value to their cattle by selling meat directly to customers. Hywel and Emma Evans, who run the Dewi herd at Wernynad, near Cardigan, have joined forces with fellow Beef Shorthorn breeders, Brian and Eiryth Thomas and Alma James and Anthony James, to form Welsh Shorthorn Beef, a business selling beef in boxes. They came together as members of a Farming Connect Agrisgôp Group run by facilitator Lilwen Joynson.

Click [here](#) to read the full story.

### Strategic Awareness Events

Below are some of the Strategic Awareness Events delivered during this period relating to the Business theme.

#### Sustainable Production Grant (SPG) – 6 events

Discussions were held on how to enhance on-farm nutrient management and increase on-farm resource efficiencies including what investments would be most beneficial and how they could make efficient differences to the clients’ businesses.

#### PDP Workshops – 8 events

Development Officers assisted clients with producing their Personal Development Plan which included producing targets and aims for business. Producing targets to ensure that businesses continue to develop and provide a valuable outcome.

#### Renewable Energy – 5 events

Chris Brooks shared information on how to save money on electricity bills. This was relevant to all enterprises and all businesses were encouraged to take the time to ensure they got the best deal regarding their electric tariffs.

#### Securing your farm business for future generations – is a joint venture an option? – 4 events

These events emphasised on the importance of planning for the future. Information was given on the different types of joint venture agreements by experts Wendy Jenkins, Cara and Nerys Llewelyn Jones, Agri Advisor.

### Innovation and Diversification Show

This event was developed as findings show that nearly 40% of Welsh farms have some sort of diversified enterprises. The aim of the event was to showcase the range of opportunities available to farm business owners to create new income streams. Speakers in attendance shared their journeys into diversification and what barriers they had experienced. As well as showcasing innovation within agriculture, all Farming Connect services were promoted and visitors were signposted to relevant areas in order to take their business ideas forward.

**Key event achievements:**

- **95 EXHIBITOR STANDS**
- **31 SPEAKERS**
- **1000+ PEOPLE ATTENDED**

100% of attendees, exhibitors and staff would like to see the event staged again.

### Management Exchange

**David Phillips’ Management Exchange, August 2019**

**Topic:** Large scale export Christmas tree production, Noble Fir foliage production and Langesø trade show

**Country:** Denmark

During August, David Phillips travelled to Denmark to complete the second part of his exchange. As Denmark is the largest producer and exporter of Christmas trees and foliage in Europe, David wanted to gain a better understanding of their large-scale production methods and the industry as a whole, through meeting with various companies involved within the industry. David visited two tree nurseries; a medium production tree farm; a large-scale production tree farm and Langesø trade show. He hopes to apply many of the new skills and knowledge he’s gained from the trip to his tree farm.

Click [here](#) to read the full report.
Study Visits

4 study visits took place during this period.

In September, Dyffryn Conwy Cattle Group visited five beef farms in Scotland to see how they have adapted their systems, including a change of breeds and adapting their wintering systems.

The NextGen Dairy Farmers Group travelled to England and Scotland to learn from four successful dairy farms. The group also visited Glenarth Farm who have diversified into chicken farming, to explore the possibilities of future diversification into poultry farming as milk prices are variable throughout the year.

At the end of September, the Brecon Grassland Society travelled to Scotland for their study visit. It provided an opportunity for the group of twenty members to visit progressive farms in Scotland, learn from them and provide the perfect opportunity to discuss innovation and effective management with some of Scotland’s most prolific farmers.

On a two-day trip in October, YFC Mydroilyn Group visited Scotland to see how a number of agricultural businesses have diversified in order to strengthen their businesses. They visited two businesses that have diversified in a number of ways, including diversifying into tourism, selling meat boxes and a water sports enterprise.

Succession has become one of our most popular mentoring topics with 67 applications to date; 14 during this period alone.

Many individuals have sought succession mentoring in order to drive their business forward and create a viable future, some examples include:

“I want to set plans in place to introduce my son into the business.”

“I want to discuss succession as although I am a partner in the business, I am having difficulties making changes due to other family members.”

“I am eager to start considering succession and the future direction of the business.”

Personal Development Plans

396 PDPS were created during this period
337 were created during October alone as a direct result of the skills window, with people needing a PDP to apply for funded training courses.

E-learning

Some of the e-learning courses completed within this period include:

Business Planning
Marketing your Business
Financial Recording and VAT
Introduction to Business Planning
Planning a Diversification on Farm

Training Courses

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Number completed during this period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Planning and Development</td>
<td>11</td>
</tr>
<tr>
<td>Marketing your Business</td>
<td>11</td>
</tr>
<tr>
<td>Financial Recording and VAT</td>
<td>9</td>
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<tr>
<td>Introduction to Business Planning</td>
<td>5</td>
</tr>
<tr>
<td>Planning a Diversification on Farm</td>
<td>4</td>
</tr>
</tbody>
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ICT Programme

- **LEVEL 1**
  - 6-week training course = 45 individuals trained

- **LEVEL 2**
  - One-to-one tutoring = 133 individuals trained

- **LEVEL 3**
  - Workshops = 722 attendees

Workshop themes included:

- Social Media Training
- Introduction to Drones
- Measure to Manage
- Making Tax Digital – The Options

Highlights from our online and social media platforms:

What a day! Here are some highlights from today’s Innovation and Diversification event. What was your highlight? If you missed out, you can watch each seminar on our YouTube channel! (remember to subscribe http://bit.ly/2ln8PbS)

A big thanks to all our speakers and exhibitors.

Number of views: 12,953
Likes, comments & shares: 254
Post Clicks: 1,120

www.gov.wales/farmingconnect