Case Study: Frogmary Green Farm, Somerset, UK

Many travellers will be familiar with Frogmary Green Farm, as the domes of its AD plant can be seen from the A303 near South Petherton and those within the agricultural industry will be familiar with Nick and Claire Bragg who farm 325 hectares in Somerset.

Energy production

Frogmary Green Farm combines the production of energy from crops, the production of chickens, contracting for other farmers, conference facilities and a cookery school, in a highly dynamic business. Part of the LEAF Demonstration Farm Network, Nick and Claire are the recipients of many awards from within the farming industry and beyond for their work in linking environmental management to low carbon livestock production. They have taken up LEAF Marque as part of their environmental commitment:

“We don’t get any premium value for it, and I don’t think it is even marked on the packs when they go out, to either processor or the consumers, so it is about our values.”

Nick links this to their experience of developing the farm, and how LEAF appealed to him:

“I really like their ethics and what they stood for, the environment in particular, and when we started here, there were no redeeming features. FWAG and countryside management have helped us, and we’ve really got a lot of enjoyment out it, all that we have put in; hedges, trees and more recently we have been lucky enough to win several prizes about this.”
The AD plant is fed with grass, maize, cereals and fodder beet grown on the farm, with the land being in both Entry Level Scheme (116 hectares) and the Higher Level Scheme (72 hectares), so that an emphasis is placed on in-field conservation practices and wildlife improvements. The biogas produced from the AD plant is fed directly into the national grid, and the digestate used back on the farm. Across the farm, 13 hectares of stewardship margins, ponds, archaeological site and wildflower strips have been either created or protected. The Braggs have planted four kilometres of new hedges, 1600 trees, a one hectare arboretum with 230 trees and renovated a one-and-a-half hectare apple orchard.

Environmental commitment

The poultry production is only one of four broiler production units to hold LEAF Marque presently, a recognition of the Bragg’s commitment to conservation and the environment, as well as the welfare of the birds. All the poultry sheds on the farm are heated from biomass woodchip boilers, a total of 840 kW of capacity, that also allows staff accommodation, workshops and meeting rooms to be heated sustainably. The birds are kept to RSPCA ‘Freedom Food’ standards, and one of the sheds includes a viewing platform to allow visitors to see for themselves the conditions the chickens are kept in, while ensuring the biosecurity of the facility. The commitment to renewables continues, with PV solar panels on buildings which contribute electricity, continually lowering the carbon footprint of the farm’s enterprises, “within the next 12 months we’ll be 100% reliant on green energy”. Nick has the aspiration to take this further, “we would like to run our two lorries on gas within five years, using methane from the AD unit” and that in the wider agricultural industry “there is interest in our being carbon neutral.” Although LEAF Marque did not spark Nick’s interest in energy generation and self-sufficiently, “they had a part of play in my thought process”.

Environmental commitment
The attention to detail about renewables in interlinked with the welfare of the birds, which is increasingly data driven:

“A lot more data driven, capturing the data – all of the heating, ventilation, humidity and CO₂, and we are seeing if that could be put onto an app for a handheld device, and then looking at that information historically to see how that can help us. How does that compare to things a year ago, what could we do differently now?”

Another change concerns treatment of mains water, with the aim of gaining the best balance of welfare, environmental efficiency and business return:

“We are always gearing ourselves towards the optimum and then it is about how things are managed, ventilation is a crucial part, we are using mains water, and we are measuring pH levels, treating it ourselves to control that to control variation. ”

Growing crops for the AD plant requires a similar focus on efficiency, and has cut down the farm’s fuel bills. All the tractors now have GPS and satellite guidance, which he has “very roughly worked out that this is £8-10,000 per year in fossil fuels” and as that “fossil fuels are only going one way in terms of price” this will be a sustained saving for the farm.

Public Engagement
The latest venture by Claire and Nick is ‘Cook it @Frogmary Green’. Based in a re-purposed potato shed it offers cookery classes, meeting facilities and function space with catering based on a network of local suppliers. This business builds on a strong ethos of education and participation that the Braggs have developed through events such as Open Farm Sunday and education visits from local school children. As part of this, the Braggs have started to work with Somerset County Council and Somerset Public Health Authority to encourage healthy eating. To help the visitors’ understanding, the farm has created “small ½ acres of different crops so you can see crops being grown in a commercial environment” which is important “so we can discuss where food actually comes from.”
As part of the engagement with the wider community and local villages, which have recently supported several large planning applications on the farm, Nick is reaching out to local councils:

“We have got a lot of vehicle movements, and we are engaging with three local parish councils and villages, and we are supporting them financially, and we are helping them with flowers to show care for their village, to say we are using your village by moving our vehicles through your village.”

Throughout this, Nick has found LEAF to be very helpful in providing training on how to communicate more effectively with people but also concerning information, an area that he believes is a key need for his enterprises:

“LEAF have been very, very helpful in giving information; I would say that they have been faultless in that.”