



Case Study: Fan Farm

Safeguarding the Future

sustainable development training
for the professional business



Environmental Management for the Future

sustainable development
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Introduction and Background

Located near Llandovery, South Wales, Fan Farm is run by Mr David Hormann, a second-generation farmer, who began farming in 1977 after completing his agricultural studies at Coleg Sir Gar, a local college. Mr Hormann took over a farming business started by his father, an immigrant who married a Welsh woman after the Second World War. The 210 acre (84ha) Welsh upland farm is used for a combination of sheep and dairy cattle grazing, arable and woodland. Over the last ten years the farm has undergone many changes, including a shift from an intensive system of production using large quantities of chemical nitrogen and pesticides to a more extensive system using significantly reduced quantities of chemical inputs.



Drivers for Sustainable Development

Whilst the farm has begun a number of initiatives which could be viewed as part of a shift towards more sustainable development, these initiatives have been motivated by a deep commitment to the farm and farming, rather than to sustainability as such. Indeed, there is no explicit sustainability policy on the farm; these developments have been undertaken through a desire to maintain a viable family business, and a willingness to be forward-looking and innovative. In the process of making these innovations the farm has begun to work with bodies such as the Countryside Council for Wales (CCW) and land-stewardship schemes such as Tir Gofal, which have their own sustainability policies, therefore bringing more explicit sustainability awareness to the farm's operations.

The view to the main farm buildings across a hedgerow and a 10 acre (4ha) field being used for sheep grazing. Some of the farm's woodland can also be seen in the background.

*Source: Larch Maxey
Swansea University*

The Practice

From the time the Hormann family began working Fan Farm, it has always been associated with innovative and forward-thinking practices. During the 1970s and 1980s, Fan Farm followed a productivist approach to farming, for example using 75 tonnes of chemical fertiliser per annum, and cutting silage three times each year.

The farm's continual process of innovation and forward-thinking, however, has meant that recently more sustainable initiatives have begun. For example, Mr Hormann noticed that whilst the farm needed to bale its own straw, neither he nor any of his neighbours had a baler. He therefore invested in the purchase of a baler which saved him the expense of hiring in a baler, and also created an additional income stream as he bales for other farmers in the area. In terms of sustainability this not only reduces transport, it also helps to keep money from the local farm economy circulating in the area.



The farm now uses approximately 25 tonnes of chemical fertiliser per year, which produces lower yields than when 75 tonnes were used and the fields were ploughed heavily, but it also means that less money is needed to pay for inputs. Thus the farm is moving towards greater self-reliance, reducing costs, producing more inputs from the farm, and supporting the shift towards more sustainable management.

The three main aspects of the business are lamb and wool production, dairy, and forestry, with the latter producing firewood and cleft-oak fencing. On the dairy side of operations, the farm has shifted from a 'wet' to a 'dry' system for managing the cow-shed floor. Cattle used to be housed on a bare concrete floor which was cleaned by using water to wash it into a slurry pit. Now straw from the farm is placed on the floor and this is collected and added to the fields in rotation to help build fertility, thus reducing some of the need for artificial fertilisers and eliminating the need to deal with the toxic slurry pit. Under the Tir Gofal Scheme, stubble from barley production is now left over winter to provide food and cover for birds, as well as protecting the soil, before it is ploughed back into the soil in the spring.

Planting for the Future: 'You Have to Start Somewhere'

The third aspect of the business, woodland management, has increased significantly over the last ten years. Working with the statutory Forestry Commission and other organisations, there has been substantial tree planting, increasing the area covered by woodland from 30 acres (12ha) to 50 acres (20ha). The choice of woodland is again in line with sustainable development, with native broadleaf species being chosen as they produce high quality timber and positive ecological and amenity value. However, the pay-back on broadleaf woodland is much slower than for Sitka Spruce, or other monoculture, fast-growing, softwoods. This again shows Mr Hormann's willingness to invest in the future of the business and think long-term.

He recognises that it is difficult to make decisions such as planting broadleaf woodland, which will show no real return for at least 25 years, but he answers this with the assertion that, "*you have to start somewhere*". Without this approach, he suggests, there will be no native timber available in the future. This long-term thinking, whilst not motivated by sustainable development *per se*, is a good example of the thinking sustainability requires. In the case of Fan Farm, Mr Hormann hopes that his son will one day reap the benefits of the planting he is currently undertaking, and indeed, it seems his son is keen to follow in his footsteps and take over the running of the farm in due course.

The 10-year-old oak thinnings from one area of woodland have enabled the creation of two sub-businesses. The better quality material is used to produce cleft-oak fencing, and the rest is split for firewood. As with the purchase of the baler, in this area of the farm's business, the willingness to invest and innovate

has allowed new opportunities. Thus the farm produces split and seasoned firewood as an additional added-value product. In order to ensure a continuous operation, the rate at which this thinning material is used is controlled, so that it lasts until the new plant thinnings are available.



Opportunities and Obstacles

Whilst there has been a general shift towards what may be viewed as a more sustainable system of farming at Fan Farm, there has not been a shift towards organic production as it is felt this would be too restrictive.

There are problems with weed species, such as dock and chickweed, on the farm, and these are

managed by the use of Roundup herbicide and other pesticides that would not be permitted under an organic system. Although the use of chemical fertilisers and pesticides has been reduced, it has not been entirely replaced. Like most aspects of the farm activity, this area is largely controlled by financial implications. Without clear signs that the switch to organic farming will pay for itself, and that the additional costs and risks would be compensated for in terms of generating higher prices for produce, then this opportunity will be impractical for some time.

Another obstacle identified by Mr Hormann is the difficulty of working with different organisations. For example, he is working with Cyd Coed and the Forestry Commission, who have been keen to use some of his land to run tests on the feasibility of planting trees for bio-fuel, timber and amenity. Within these UK-wide trials Fan Farm represents an upland hill farm at over 900 feet (300m) elevation. The arrangement is that they do the planting and he contributes the land and monitors progress. To date there have been mixed results, with some areas of growth successful and others having failed significantly. However, in these failed areas Mr Hormann is concerned that the organisations have not yet replanted so he is left with areas not being developed as he had hoped. It is important to him that these areas are replanted as soon as possible. *"It is still my land"*, he notes, demonstrating his concern to ensure the farm's long-term viability.

*Log-splitting machine in operation.
Source: Larch Maxey
Swansea University*



Another factor when working with other organisations is that they sometimes have conflicting rules. For example, Mr Hormann was keen to work with the Forestry Commission to develop a short-rotation coppice willow trial. Everything was set up and ready to go, when it became apparent that the area would be removed from the farm's single farm payment (SFP) if the trial went ahead. Whilst the Welsh Assembly Government has clear targets and policies encouraging the development of short-rotation coppice as part of a sustainable development and climate-change strategy, in this case the ruling on the SFP seemed to run counter to these goals in practice.

The Future

The farm's foremost concern to maintain a viable family business has led to a number of initiatives which are commendable from a sustainability perspective and these could develop further in the future. Mr Hormann is currently looking into the possibility of using some of his land for carbon off-setting and selling carbon credits. However, this focus may also mean that the farm becomes more intensive again in the future as Mr Hormann's son and his family begin living and working on the land and need to make a living from it.