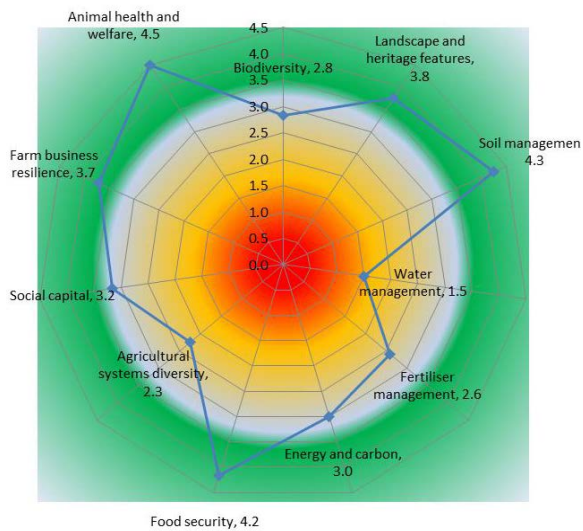


## Sustainability assessment for UK case farm 2



### 1. Soil management

Some fields' soils are tested each year and action taken as a result. It is possible to turn cattle out to graze forage rape during dry winters without causing too much soil damage. Any poaching is rectified the following spring, when the land is ploughed for reseeded. Soils are not affected by erosion.

### 2. Biodiversity

The farm has 92% of its grassland in low input long-term pasture, with sympathetic management to encourage plant diversity. 5% of the land area is managed under a Biodiversity Action Plan. Nine species on the rare species list were recorded on the farm. The total score was limited by the absence of woodland, but this is not a natural feature on the farm, and the fact that a full flora and fauna survey had not been carried out.

### 3. Landscape and heritage

Historic features on the farm, such as the old stable building now used as a feed store, are kept in good repair and make a positive contribution to the landscape. The lack of rare breeds and heritage varieties of crops limited this score.

### 4. Water management

Water is used efficiently by returning water from the plate cooler to cow drinking troughs and using the water that has washed the plant to wash the floors. More water saving options might be possible, but, being in a high rainfall area, water shortage is not usually a problem and no water use audit has been completed.

### 5. Fertiliser management and nutrients (incl. an NPK budget)

The nitrogen budget showed a good recovery for a dairy farm, of 33% of N inputs captured in products. The Nitrogen surplus was 126 kg per ha. Phosphorus showed a slight deficit of 6 kg per ha and potassium a very small surplus of 6kg per ha. Manure applications are controlled by the organic standards, but manure is not analysed, which could add to the information available for planning nutrient use. Manure is composted on hard standing but, as on most UK farms,

without a cover. Slurry is applied using a "trailing shoe", partly in autumn and partly in spring, with at least six weeks between applications.

### 6. Energy and carbon

Energy use was 108% of the benchmark figure for the herd size, while ratio of energy produced to energy used was 3:1, giving a medium score. Although energy use is recorded, no energy or greenhouse gas audits had been completed, which might indicate further energy saving opportunities. There has been no carbon release caused by ploughing permanent grassland or felling woodland in the past 20 years. Energy is produced on farm using solar photovoltaic cells and an air source heat pump.

### 7. Food security

Yields are slightly above average for the farm type. All produce is marketed regionally, milk being sold to the local co-operative Calon Wen, reducing food miles.

### 8. Agricultural systems diversity

Although the farm is a specialised dairy unit, the system does include diversity. A small area (3.4 ha of the total 46 ha) is used to provide forage crops other than grass, this year forage rape followed by a barley/pea mix, undersown with grass. The pastures are very diverse. One hectare is specifically managed as a species rich meadow. The dairy herd includes five different breeds: British Friesian, Jersey, Ayrshire, Meuse Rhine Issel, Montbeliarde, Swedish Red. Beef bulls used are British Blue and Limousine.

### 9. Social capital

The farm is run by three highly qualified family members. Two farm walks have been held on the farm in the past year. Interaction with the public will increase with the future opening of holiday accommodation on the farm. Selling the milk through a local organic cooperative, which bottles it locally and sells it within Wales, keeps employment and money within Wales.

### 10. Farm business resilience

The farm is limited by climate, topography and soil to milk production, but has a variety of options for sources of inputs. The farmer has good communication opportunities through membership of several societies. Benchmarking is used to assess performance and encourage progress.

### 11. Animal health and welfare

The farm follows a herd health plan. Attention to detail in the milking routine and in maintaining general herd health has led to very low incidences of mastitis and lameness within the herd. Artificial insemination by farm staff immediately after milking reduces the time the cows are separated from the rest of the herd, thereby reducing stress and improving conception rates. Cows graze for at least six months of the year and in winter are housed in cubicles.