

Farming for a Better Climate



Hillend

Ross Logan, in partnership with his parents James and Anne, farms Hillend which is a 112ha dairy unit located just outside the village of Clackmannan. The farm is owned by the family.

The Logan's milk 110 Holstein cows achieving an average yield of 9000l/cow/annum. The herd is on an all year round calving pattern with home bred replacements entering the herd. Male calves are finished on-farm and sold live at the Caledonian Mart in Stirling.

The cattle are housed through the winter and fed on a silage based total mixed ration (TMR) supplemented with home-grown cereals and bought-in feed. Approximately

45 ha of cereals are grown each year with the rest of the land in grass for silage production and summer grazing.



Name	Ross Logan
Farm	Hillend
Locality	Clackmannan
Farm type	Dairy
Size	112 ha
Staff	1 full time, plus Ross and dad James

How might climate change affect Hillend?

Wetter and warmer winters and more extreme weather events in general would have a significant effect on operations at Hillend. The cost of feeding cattle through the winter is significant with bought-in feed being the most variable cost carried. It is possible that the housing period could be extended in future years as prolonged episodes of wet weather effect ground conditions.

A longer housed period would mean an increase in silage ground at the expense of cereals. With less cereal production taking place, more bought-in feed would be required. In general terms, input costs would rise significantly without the scope for increased production.

This could put more pressure on existing farm buildings, as improved and extended housing facilities may be required. A longer housing period means more slurry will be produced and so additional slurry storage will be required.

Case Study

Find out what other farmers are doing to improve profitability and adapt to a changing climate in our series of case studies.

There are five sets of Practical Guides covering :

Use energy and fuels efficiently

Develop renewable energy

Lock carbon into soils and vegetation

Optimise the application of fertilisers and manures

Optimise livestock management and the storage of manure and slurry

Find further information, including links to other Practical Guides and Case Studies, at

www.farmingforabetterclimate.org



Funded by the Scottish Government as part of their Climate Change Advisory Activity

Websites

www.farmingforabetterclimate.org

www.adaptationscotland.org.uk

www.agrecalc.com



Hillend Farm Case Study

Renewables

There are currently no renewables at Hillend. However, with a relatively high demand for power in the dairy there is scope to reduce input costs through production of renewable energy where feasible.

Ross has already indicated that he would be keen to look in to biomass heat production for domestic use in the main farmhouse as well as to heat water in the dairy. At the time of writing, the feasibility of this is being assessed.

Production of solar and wind power are also being investigated. Renewables could provide an additional income to the farm as well as reduce input costs which would help insulate the business from the volatility of the milk market. At the same time there is the opportunity to reduce the carbon footprint of the farm by implementing a plan to produce heat and/or power via a renewable source.

Can you benefit from activities at Hillend?

As part of the programme, several group meetings will be hosted by Ross, but we will also visit other businesses to see more examples of good practice.

For information on events or to see what other farmers are doing, visit

www.farmingforabetterclimate.org



Livestock efficiency

Improvements in dairy efficiency are being targeted through improving the health status of the herd. Johnes has been an issue in the past and regular blood testing is carried out to identify affected cattle which are culled immediately.

The genetics within the herd are first class, meaning a steady inflow of high quality home-bred replacements which allow for less efficient cows to be regularly identified and culled. This process will help to maximise profitability from the dairy enterprise.

Investment in calf-housing is taking place in early 2015. The new facility will greatly improve calf health through providing a better rearing environment. The improved calf housing will produce stronger calves which will finish more quickly as a result. During the project, the production systems will be reviewed constantly to target improvements in efficiency across the whole enterprise.



Grassland management

Efficient grassland production is key to the performance of the dairy herd. Maximising output from grass during the grazing season will increase milk yield at low cost. Focusing on grassland utilisation is key to this and by moving cattle on to fresh grass on a regular basis and shutting up surpluses for silage production, the nutritional value of the grazing can be maximised.

Getting the most from the grass and home produced fodder will bring financial advantages by reducing the amount of bought-in feed that is required. Furthermore, less requirement for purchased feed also reduces the carbon footprint of the operation and so supports climate change mitigation.