

# Matching carrying capacity and profitability



## Background

Ben Farm is a 450 ha sheep and cattle farm in the uplands, that despite the large number of animals, is not making much profit. The negative environmental impact of the high stocking rates is significant. In the end, the family sat down with an advisor to analyse their farm business in detail, as part of a funded **Integrated Land Management Plan** (ILMP). They came to realise that continuing in this way was neither financially viable nor environmentally sustainable.

## Approach

They started with a detailed analysis of all their costs, which included high fertiliser, feed and energy costs. They then thought about ways to drastically reduce their bought-in feed to lower feed costs. They realised that they had to reduce their stocking rates in order to sustain the sheep and cattle on the farm from the fodder they were able to produce and adopted an extensive grazing system. Certain fields are now managed in agri-environment schemes, while on some in-bye fields mob grazing has been introduced.

## Cost and benefits

The farm's forage costs previously amounted to circa £72 per hectare. By moving to a low input system, with zero artificial nitrogen, forage costs have been reduced to circa £9 per hectare. Rather than trying to maximise forage production with high inputs, the business has shifted its focus towards maximising forage utilisation. The stocking rate has been reduced accordingly, which has led to a fall in the livestock gross margin - but this has been more than offset by the **AECS Stock Disposal payment**.



## Table with cost and benefits – Matching carrying capacity and profitability

Annual Marginal Costs	Per Hectare (£)
Income lost due to reduced stocking rate	68.42
<b>Total</b>	<b>68.42</b>
Annual Marginal Benefits	
Reduced forage costs	65.01
AECS Stock Disposal payment	24.83
<b>Total</b>	<b>89.84</b>
<b>Annual Marginal Cost: Benefit</b>	<b>21.42</b>

They have also had more time to think about their marketing, for example, to access value-added markets for farm produce by emphasising the sustainability of the grazing system, like **Pastures for Life**.

They have seen a change in their environment. This alternative grazing system protects and enhances the grassland habitats with varied sward height, flowering and seed-set – providing habitat and food for invertebrates, birds and other vertebrates to thrive. There are other ecosystem service benefits, such as reducing soil erosion and run off, improving water quality and reducing downstream flood risk.

AECS supports **moorland management** and associated management payments such as stock disposal, away wintering of sheep and summer hill cattle grazing: <https://www.ruralpayments.org/topics/all-schemes/agri-environment-climate-scheme/management-options-and-capital-items/moorland-management/>

In addition, species rich or mosaic fields on the in-bye can be managed under the following options:

- **Species-rich Grassland Management (£109.56 per hectare per year)**
- **Habitat Mosaic Management (£93.20 per hectare per year)**

## Challenges

A key challenge is making time available to analyse and digest the financial figures. This type of analysis can raise difficult questions about viability and livestock numbers. Seeking advice is important when considering a dramatic change to your system to make sure it is the right decision for your farm and your family. An ILMP can help in the process, and is funded by the Scottish Government <https://www.fas.scot/integrated-land-management-plans-ilmps/>

## More information

Agri-Environment Climate Scheme (AECS) via the Rural Payments and Services website: <https://www.ruralpayments.org/topics/all-schemes/agri-environment-climate-scheme/management-options-and-capital-items/>

FAS Protecting Scotland's Peatland <https://www.fas.scot/environment/biodiversity/protecting-scotlands-peatlands/>

FAS Species Rich Grassland Habitat Video <https://www.fas.scot/publication/species-rich-grassland-habitats/>

<sup>1</sup> Prices correct May 2022