



Glensaugh farm event **“The Challenge of Marginal Land: efficient utilization of the managed natural environment”**

The September 2017 [farm event](#) at Glensaugh was organized by the James Hutton Institute to demonstrate and discuss the ongoing management practices and associated research to farmers, land managers and relevant organisations with an interest in land use. The event focussed on two activities:

- Sharing the benefits of **progressive grassland management** for sheep production;
- Discussing opportunities for **achieving multiple benefits** from coordinated land management among farms across a catchment.

The event drew together a diverse audience of around 30 people including farmers, farm advisors and consultants, representatives of affiliate organizations (NSA, SA, SAC, GWCT, SRUC - see glossary), and a range of researchers from the James Hutton Institute with expertise in social, ecological and soil sciences.

The general tone of the day was that biodiversity matters to those who manage the land - farmers ‘take pride in their habitats’. Land managers are interested in exploring how to better align targeted support for ecosystem services and biodiversity with farm management goals.

Farm tour

[Glensaugh](#) is a 1000 ha hill farm with a focus on sheep, red deer, and suckler cows supported by silage production from improved grassland and including woodland expansion where appropriate. The Farm Manager, Donald Barrie, actively tests novel husbandry approaches and works with Institute staff to support research projects linked to land use. First, the group visited the **rotational paddock sheep grazing system** where grass productivity and livestock weight gains are monitored. The discussion was led by guest speaker Michael Blanche who stimulated a conversation amongst the participants about the management of such systems to achieve production gains. Paddock grazing capitalizes on the physiology of rye grass and clover, plants that ‘want to be grazed, and then rested’. When grazed well, farmers can achieve both increased biomass production and higher grass utilization, which means that the same land area can support more livestock.

Second, Donald Barrie showed how his vision of **woodland planting** on the farm has wider benefits and is part of a strategy to create shelter for livestock whilst not significantly reducing the area of land available for grazing. Linked to the new woodland is a site that is one of three across Scotland where Scots Pine of different provenances are being grown and monitored to determine how they establish under different conditions.

Third, the farm tour allowed attendees to view the hill ground and discuss the low input philosophy for the **management of the blackface ewes and red deer hinds**, touching on the strategy for muirburn and bracken control. This allowed the group to discuss the research work on muirburn under deer and sheep grazing as well as the lessons learned from the agroforestry plots. In addition, there was some discussion around the ongoing liming experiment carried out on the marginal grassland on the moorland fringe where the effect of raising the pH on the productivity of the system and the consequences for wading bird food supply are being investigated.

Lunch allowed participants time for informal discussions and the opportunity to view some of the other relevant projects illustrated on a number of posters.

Research on agri-environment-climate schemes (AECS)

First, attendees were presented with the findings of a review of AECS options. This highlighted [gaps in current AECS](#) and identified a) where these could be filled by adopting options tried and tested elsewhere in the UK or further afield; and b) where new options might need to be tested (such as the liming experiment). In England, for example, there is a scheme for rush control and ditch management, and an upland birds scheme that involves managing grazing levels and water levels in grassland for upland bird habitats.

Second, attendees were presented with the key messages from a review of coordination of agri-environment schemes based on cases in other EU countries with a discussion on their relevance to the Scottish context. Two models to **support coordination of agri-environment schemes** were introduced:

- An agglomeration *payment* (where a payment is made only if there is spatial coordination)
- An agglomeration *bonus* (where payment is individual, but extra payment is offered if a threshold of applications is reached).

Third, attendees were presented with the experience of a) the GWCT in setting up cluster farms to coordinate management for environmental benefits across landscapes, and b) SRUC in knowledge exchange based on its farm ([Kirkton/Auchtertyre](#)) near Crianlarich, Perthshire.

The [GWCT Farmer Clusters](#) initiative has been running since 2013 and supports farmer groups who want to encourage biodiversity on their farms. The process is very much farmer-led, while being facilitated by GWCT advisors. GWCT are looking at the potential to set up a cluster farm initiative around their farm ([Auchnerran](#)) near Tarland, Aberdeenshire. One issue was that, although farmers have an intuitive knowledge of biodiversity on their farms, they benefited greatly from coordinated wildlife monitoring to assess the impact of their changed management. From SRUC, attendees heard about examples of **knowledge exchange and the interaction of stakeholder groups**. The Kirkton farm is a platform for knowledge exchange events and workshops and hosts events such as the Farmer Grassland Group that meets several times per year, where integration of production and conservation is explored jointly with other experts.

Discussion: Which environmental benefits require coordination?

In the final session of the day, attendees discussed environmental benefits they would like to see improved and which of these require collaboration and/or coordination among land managers and across landscapes. These included: improving water quality, managing water quantity (flooding), supporting biodiversity (in particular ground nesting birds through predator control), and aesthetics of landscape planning for recreational use. Woodland creation did not emerge as a high priority for the farmers present, although researchers and advisors saw it as something requiring coordination to ensure connectivity of woodlands. Other environmental aspects of farming practices were seen as less urgently needing coordination, although important on individual farms. These included promoting soil health, increasing carbon storage, managing field margins, creating and maintaining hedgerows/shelter belts, and public access.

How to make AECS more effective

A number of key messages emerged from the discussions among the workshop participants:

- **Farmer coordination** needs to be supported by a facilitator who can develop an overview of the opportunities and constraints across a landscape in order to better coordinate the implementation of schemes across farms. This will enable the broader alignment of relevant AECS requirements with individual farmers' biodiversity priorities and their main business

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enterprises. Some attendees pointed to the benefits of Land Managers Options as a useful mechanism to help devise a strategy at a landscape scale and would like to see this approach considered in future AECS.

- **Monitoring** to assess the impact of AECS needs more attention and resourcing. All stakeholders, including farmers, will be more motivated if they can demonstrate that the schemes are actually effective. Farmer-led monitoring could be part of the solution.
- **AECS need to be more flexible** to facilitate adequate responses to local and regional environmental challenges. Flexibility is needed in a) eligibility for different options to take account of local conditions (both in terms of timing and spatially), b) how a scheme is implemented in terms of timing and taking account of local conditions, and c) rapid approval of funding when there is a particular need for rapid action to address a specific threat.
- A topic that resurfaced throughout the day related to predator control and the enhancement of ground nesting bird populations. In summary, these discussions concluded that **the need for integrated predator control** should go hand in hand with creating suitable habitats. Badgers, foxes, crows and buzzards were mentioned as threats to ground nesting birds. Thus some participants felt that future options should explore the potential to include payments (and maybe even a requirement) for predator control to achieve biodiversity benefits.

Glensaugh in the media

- The Courier, 13 September 2017, [Environmental “fit” is the farming focus at Glensaugh](#).
- BBC Radio Scotland’s [‘Out of doors’](#) programme, 23 September 2017, covering this farm event.

Glossary of acronyms

AECS	Agri-environment-climate schemes
NSA	National Sheep Association
SA	Soil Association
SRUC	Scotland’s Rural College
SAC	SRUC’s Knowledge Transfer company
GWCT	Game and Wildlife Conservation Trust

This summary is available for download as pdf document including all hyperlinks at: <http://www.hutton.ac.uk/research/srp2016-21/wp143-practical-interventions-realise-multiple-benefits-and-manage-trade-offs>