

## **IGER Upland Research Centre Bronydd Mawr**

### **A resource for livestock production, environment and water catchment studies**

IGER have recently updated their focus on upland research to address new policy drivers on linking production and meeting environmental goals in upland habitats. The Upland Research Centre at Bronydd Mawr has during the past year reintroduced a mainstream suckler herd of Limousin cross cattle as well as smaller herd of Belted Galloway. The new research programmes on mixed grazing of cattle and sheep on improved and semi natural rough grazing will be discussed in the short presentation.

### **Background information - Bronydd Mawr**

The total land area of the Bronydd Mawr farm is 230 hectares, lying between 250 and 400 metres above sea level on the south-east slopes of Mynydd Eppynt at Trecastle, near Brecon, Powys. Average annual rainfall is 1500mm and the mean screen temperature is 8°C. Since its inception in 1983, research at Bronydd Mawr has been a collaborative effort between IGER and MLURI. The centre is the only BBSRC upland centre in England and Wales, is a development farm for Farming Connect and has recently been awarded LEAF Innovation Centre status.

### **Less Favoured Areas**

The Less Favoured Areas account for almost half the agricultural land in the UK and have problems in maintaining rural family incomes and retaining population. Within this area approximately 33% of the land area is improved grassland which accounts for 85% of the production. There has been a substantial decline in the nature conservation value of the remaining upland areas. However, more recently, European policies have been directed at reducing livestock subsidies based on headage and redirected towards improvements in farmed environment and habitat diversity. The development of systems that maintain viable production levels and improve on environmental objectives will be key to sustainable agriculture in the uplands. Upland farming relies heavily on grassland as a source of grazed and conserved forage and greater reliance on legume based systems is regarded as the best way of developing low-input, economically viable systems of sheep and beef farming. Mixed grazing of cattle and sheep has been shown to be beneficial to livestock performance as well as providing a mosaic of plant diversity. Our current work is aimed at providing guidance on the stocking density of cattle and sheep in order to optimise plant diversity and livestock performance.

### **Research aims**

- To improve the efficiency, cost-effectiveness and sustainability of upland livestock farming through the production of quality meat based on grazed and conserved forage.
- To give due consideration to environmental, animal welfare, landscape and socio-economic factors.

#### **Current upland research projects**

- Demonstrating an upland sheep system
- Red clover on upland farms
- Control of creeping thistle
- Grazing management
- Legumes in the uplands - red clover
- Legumes in the uplands - white clover
- Optimising sheep production systems
- Site of Special Scientific Interest (SSSI)
- Upland beef systems
- Establishing a suckler cow enterprise to manage a diverse semi-natural rough grazing.

#### **Related areas of interest**

Bronydd Mawr is used by the Welsh Assembly Government to train consultants in the delivery of environmental audits.

The research centre is currently established up as an upland research platform for Defra and some BBSRC funded research as well as having partnerships with FWAG, CCW, RSPB, CEH, LEAF, EN and MLURI.

The site is ideal to conduct nutrient flow research at a catchment level and provides examples of twenty years extensification managed swards.

Raymond Jones

Leader of Livestock Systems and Integrated Land Use  
IGER.