

BES(FEG)/ FWF – Falkland
13th June 2013

Woodland cattle grazing options
for Scotland – a review

Dr. Scott McG. Wilson MICFor

Consultant Forester and Forest Ecologist

Aberdeen, Scotland, UK

Aims of presentation

- Recent record.
- Objectives.
- Scenarios and examples.
- Benefits.
- Challenges.
- Incentives.
- Research and development needs.
- Dutch and English experiences.
- What distinguishes the Scottish situation?

Recent record of adoption

- Historical wood-pasture awareness/ Vera.
- Over-grazed upland native woodlands.
- Agroforestry research for extensification.
- Livestock Exclusion Annual Premium.
- Weed growth v. natural tree regeneration.
- Woodland Grazing Toolbox (FC/SNH).
- SFGS S9 pilot scheme.
- Woodland grazing within the SRDP.
- Agroforestry as a component of WEAG.

Objective sets for woodland grazing

- Scientific research and development.
- Vegetation/ habitat management (v. sheep).
- Native woodland conservation/ restoration.
- Enabling/ encouraging more afforestation.
- Historical landscape interpretation/ tourism.
- High quality/ heritage meat production.
- Farm forestry income/ diversification.

Scenarios for woodland grazing

- Historical wood-pasture/ parkland habitats.
- Existing native woodlands.
- PAWS restⁿ/ native woodland regeneration.
- Plantation forestry (existing/ mature).
- New woodland plantings (farm woodlots).
- Designed/ spaced-tree agroforestry trials.

Key Scottish woodland grazing sites

- FCS Loch Katrine catchment.
- FCS Glen Garry, Loch Arkaig, Lochaber.
- JHI Glensaugh and Kirkton of Auchtertyre
- Bolfracks Estate, Perthshire
- Arisaig Estate, Lochaber
- Argyll, Perthshire and Galloway farms

Key Scottish woodland cattle breeds

- Highland ✓
- Luing ✓
- Galloway ✓
- Shorthorn (and crosses) ✓
- Aberdeen Angus X
- Continental breeds X

Dr. Scott McG. Wilson MICFor
Consultant Forester and Forest Ecologist



Approaches to the future expansion of tree cover on farmland and deer-range in Scotland

WEAG Discussion paper - November 2011

Cattle grazing in Scottish woodlands: experiences, opportunities and challenges

by Scott McG. Wilson, Consultant Forester and Forest Ecologist, 3 Thorngrove Crescent, Aberdeen AB15 7FH
E-mail: scottmcgwilson@hotmail.com



Summary

This paper explores key arguments relevant to use of cattle grazing as a tool for sustainable woodland management in Scotland. With increased appreciation of the cultural history of wood pasture management in Scotland, the last decade has seen a raised profile and antipathy for introduction of conservation grazing approaches to Scottish woodlands, mainly using hardy cattle breeds. Guided by recent experience in the Netherlands and England, emphasis has been on cattle grazing in native woodland habitats and in restoration of known historic wood pasture systems. Considerable research effort has been deployed, leading to development of "Highland Grazing Toolkit" software to inform management planning. Medium-scale demonstration projects using cattle grazing techniques have been implemented by the Forestry Commission across the Loch Ertive and Glen Garry catchments, along with other sites in the West Highlands, while smaller-scale farm woodland projects in Argyll and Perthshire have been supported by public grant initiatives under SP05 and SEDP/ER. The recently published Woodland Expansion Advisory Group (WEAG) report for Scotland highlighted the potential role of integrated agro-ecological systems for the upland margins, combining productive forestry with economic livestock rearing on the same units. Public interest in sustainable land management, tourist attraction of Highland cattle and lucrative premium markets for grass-fed organic beef make these approaches potentially commercially attractive in the right locations, although economic marketing opportunities in Scotland may be under-exploited at present. There remain considerable issues as to the impacts of cattle grazing on plant biodiversity in sensitive native woodland habitats and also in respect of animal welfare and energy balance considerations for overwintered hill cattle in upland Scotland. Effective techniques for use of cattle grazing in the contexts of plantation forest establishment and within designed agroecology systems remain under-developed.

Highland cattle,
Loch Aboyne woods.
© Scott McG Wilson.

Introduction

Cattle grazing in woodlands is a topic simultaneously attracting surprisingly strong advocacy and opposition across the range of land management and ecological commentators in Scotland. There is no doubt that seasonal pasturing of cattle within native woodlands formed an essential part of the historical "shealing" system of agriculture in upland Scotland until the early 1800's, while cattle would also have been a common sight in the managed woodland hunting parks and designed landscapes around the castles and great houses of Scotland over many centuries. The period since the "Agricultural Improvements" of the later

1700's and early 1800's has been historically atypical in attempting to separate agricultural production from the woodland resource on grounds of systematics and efficiency. Those advocating rejuvenation of integrated land-use in Scotland promote cattle-grazing in woodlands as a combination of an ecological management tool (largely to facilitate structural diversity and natural tree regeneration) together with historical demonstration/interpretation values, tourism potential and increasingly, sustainable organic meat production. An accumulation of recent experiences, especially in the Netherlands and lowland England, with many field excursions by Scottish managers to













Benefits of woodland grazing

- Restructuring and diversification of vegⁿ.
- Encouragement of native tree regeneration.
- Lower impacts than mechanical/ chemical.
- Additional income from marginal land.
- Contribution to national food security.
- Tourist attraction/ heritage interpretation.

Challenges in woodland grazing

- Impacts on intolerant woodland vegetation.
- Risks of soil/ ground damage on wet sites.
- Intractable/ inaccessible upland site types.
- Additive impacts with high deer densities.
- Animal welfare/ nutritional balance.
- Poorly developed specialist meat markets.
- Seasonal pattern of heritage tourism.
- Distance/ weather-related economic factors.
- Lack of available/ tenacious rural labour.

Incentives for woodland grazing

- Farming v. forestry dichotomy continues.
- Poorly developed agroforestry measures.
- High costs for some agroforestry options.
- Single Farm Payment issues/ eligibility [the >50 trees per hectare rule].
- Farm Woodland Premium issues/ eligibility [the 15 years grant for 30 years exclusion].
- Complexity of the RDP-based mechanisms [issues with agency costs, web-access etc.]
- Pillar 2 support – farm forestry options.

Research and development needs

- Need much more extension support [revival of FWAG model in support of SAC etc.]
- Key research topics include sustainable levels of grazing under different woodland conditions and biodiversity impacts.
- Veterinary welfare and thermal balance.
- Economic and business development.
- Machinery rings and skills-pooling.
- Central locus for farm and forestry research.



Dutch exchange – wood pasture lessons

- Non-intervention is non-viable in Europe?
- Not Serengeti, Masai Mara, Yellowstone!
- Not prehistoric European steppe either!
- Political reaction/ modern sensibilities.
- Difficult to really “prove” Vera’s science.
- Need to balance management objectives.
- Good models for conservation grazing.
- Best to ear-tag stock and sell organic meat!
- Valuable “eco-tourism draw” to projects

Lowland England projects - features

- Not all projects involve woodland as the main grazed habitat – e.g. heaths, downs.
- Public are interested to see historic cattle.
- Many are interested to eat organic meat.
- Can combine a niche farming business with conservation grazing – along same lines as Millingerward or Drentsche Aa in Holland.
- Need to tell a story to customers about the grazing project, welfare and meat quality.
- Helps to have private money behind work.

What makes Scotland different?

- Heritage of extensive upland wood-pasture.
- Record of over-grazing native woodlands.
- Large tracts of marginal upland ground.
- Extensive native habitat restoration work.
- Ambitious forestry expansion targets.
- Record of farm forestry/ shelter research.
- Distances/ remote terrain/ poor weather.
- Low population/ income density.
- Difficulties in sourcing local rural labour.

Dutch/ English work – lessons for us?

- Need to put “front end” onto projects – e.g. farm shops, restaurants, droving to London, stalls at Borough Market, websites etc...
- Maybe a perception of Scottish projects as a wee bit too “science-based and specialist”?
- Challenge of lower population densities in Scotland, weaker premium/ organic sector, long “drive-to distance” for farm-shops etc.
- Over-dependence on public-sector funding, not enough business/ philanthropic support.