

# Farm woodland case studies

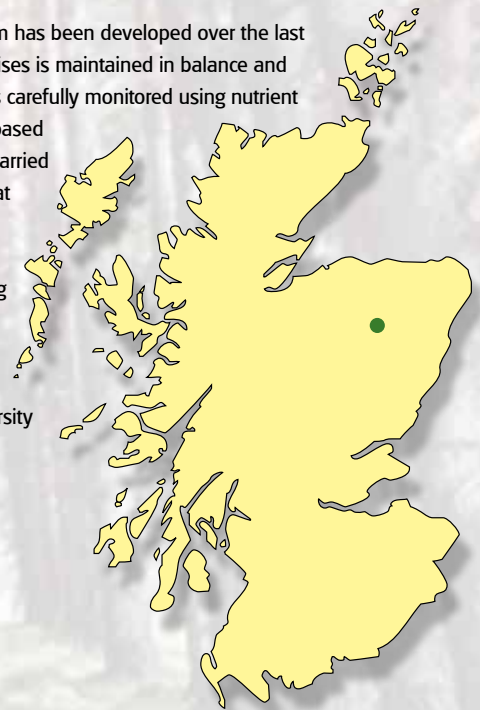
# Knock Farm Huntly



## Roger and Beth Polson

Knock is a 445 hectares mixed farm situated on the southern slopes of Knock Hill in the east of Moray, 16 km from the Moray Firth. The farm has been managed by Roger and Beth Polson since 1989 and was purchased by Beth's grandfather in 1922. Lying between 100 and 420 m above sea level, the land quality varies significantly between well drained class 3.2 arable land and heavily gleyed class 5 with a range of soil types that are characterised by large gabbro boulders.

A sustainable farming system has been developed over the last 20 years. The mix of enterprises is maintained in balance and the nutrient profile of soils is carefully monitored using nutrient budgeting and regular GPS based soil sampling. Recent work carried out on the farm indicates that the carbon footprint of the unit is almost in equilibrium. Although a profitable farming system is at the heart of the farming objectives, the aesthetics of the farm and maintenance of biodiversity are also high priorities.



The farm is a split unit of LFA and non-LFA land. It is now managed organically and comprises a herd 75 Simmental suckler cows and 400 Scottish Blackface and Mule ewes plus replacements. All progeny are finished on the farm and replacements, except the Blackfaces, are homebred. 30 hectares of commercial Sitka plantations are grown and a further 130 hectares comprises amenity woodlands and conservation areas.

Additionally, the farm operates a small livery business and hosts numerous equine activities. There is 155 hectares of arable managed under a rotation of spring barley and grass. The balance of the farm is in permanent pasture or rough grazing.



The farm has had areas in small commercial plantations for well over 100 years. They range in size from less than a hectare to 11 hectares and vary in age and situation around the farm. Some of the plantations are now in their third crop of trees and, every ten to fifteen years, the farm receives a small but important boost of income from the felling or thinning of one or more of these crops.

The commercial woodlands were expanded under the FWGS Grampian Forest Challenge Fund in 1999 with the planting of an additional 10.3 hectares, while other areas of Sitka woods on less suitable land have been felled and converted to amenity woods with improved biodiversity and aesthetic appeal. The total area of commercial plantations has been maintained at 30 hectares.





## Making the woodland work for the farm

In 2006, utilising the SFGS, approximately 70 hectares was planted in mainly mixed broadleaf natives and Scots Pine to form riparian buffer zones and improve the farms biosecurity. Part of Knock Hill was also planted enhancing biodiversity and revitalising the decaying remnants of a Scots Pine wood that is an important landscape feature on the hill.

The woodlands, including the amenity woodlands, provide income from timber sales, firewood for the houses on the farm, income from the sale of firewood, habitat for game, other fauna and flora, shelter for livestock, bio-security on the farm boundaries, buffer zones for water courses, enhanced habitat of water courses, walking tracks and bridleways, The overall effect on the area is a varied and enhanced landscape, and to the business in recent years, important income from management and capital grants. The development of a biomass heating plant should make the farm self-sufficient in heating fuel and provide income through the RHI and sale of heat to rented cottages.

The development of new woodlands has been carried out for a variety of reasons. The 10.3 hectare Grampian Forest wood planted in 1999 went on to LFA class 4 arable land that was in good heart but wet. The elite Sitka trees established well and have continued to grow at very good rates. Stock numbers were not reduced as a result of the loss of this area and in retrospect the amount of Single Farm Payment awarded to the farm in 2003 was not compromised, but spread over a smaller area.



## How it all adds up: the costs and benefits of farm woodland

There has been a loss of LFASS payments on the land over the years, but income in the first decade from FWPS has compensated for this. The woodland was planted primarily for commercial return; the level of grants payable at the time included a significant locational premium which was considered sufficiently attractive to encourage the change of land use. The long term yield of a timber crop should represent a reasonable return from the land. The change of use from agriculture to forestry has currently made the land ineligible for future agricultural support payments. This has changed for new afforestation projects but the long term loss of income from this source may be significant. The net cost of establishing the woodland at the time was a surplus of £15,362 and the farm received an annual maintenance payment of £1632 for 10 years.

The SFGS planting in 2006 has limited likelihood of commercial return, but the grants payable at the time, including a generous locational premium, were considered to be sufficient compensation to encourage the change of land use and achieve the identified conservation objectives. However, the nature of this planting scheme, the costs involved and the current grant priorities would make this scheme financially unattractive today.

## Looking forward: where do we go from here?

Knock is managed holistically and the woodlands are as much a part of the whole enterprise as the cows, sheep and horses. Small commercial woodlands can be difficult to market at harvest time, but they are important to the overall management of this farm. The woodlands at Knock have some appeal to buyers because they are close to roads and allow good all year round access. The development of a biomass plant will provide an important use for the small volumes of thinnings and low value

pulp wood produced. This will encourage the management of plantations for the production of higher quality and more saleable timber at the end. There will be increasing quantities of firewood produced from the extensive areas of broadleaf and other amenity trees planted and these could provide additional diversified income for the next generation. The balance of woodlands on the farm will play an increasingly important role in offsetting carbon emissions and may at some point provide additional income through carbon offsets.



The James  
**Hutton**  
Institute

**Aberdeen**  
Craigiebuckler  
Aberdeen AB15 8QH  
Scotland UK

**Dundee**  
Invergowrie  
Dundee DD2 5DA  
Scotland UK

Tel: +44 (0)844 928 5428  
Fax: +44 (0)844 928 5429

info@hutton.ac.uk  
[www.hutton.ac.uk](http://www.hutton.ac.uk)