#### Agroforestry in the UK

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#### **Abstract**

A greater proportion of UK land (66%) is used for agricultural production than any other large EU country. The proportion of the UK covered by woodland has increased from about 4% in 1905 to 12% in 2011, but the current rate of planting is low. The need to maintain food production means that future increases in tree cover (as planned in Scotland and Wales) will need to be integrated with food production. It is argued that the UK, but particularly England, Wales and Northern Ireland already comprises an agroforestry landscape. Moreover agroforestry features such as hedges, parkland, wood pasture, and orchard systems are all recognised as priority habitats for biodiversity protection. Such habitats would be supported if the UK government, and bodies such as the UK Forestry Commission, made use of the term "agroforestry". It is argued that currently the greatest opportunities for agroforestry in the UK relate to systems offering animal welfare and environmental benefits, and new methods of reinvigorating traditional hedge, orchard, parkland and wood pasture systems.

# History of agroforestry in the UK

Much of the UK comprises lowland fertile soils which are suitable for profitable arable production (primarily to the east), or livestock systems based on grass production (primarily to the west). However in response to increased agricultural productivity and government initiatives, between 1905 and 2011, the proportion of the country covered by woodland increased from 4% to 12%, with the greatest increases found in less agriculturally profitable areas in Scotland and Wales. The UK's high population density (2.5 people per hectare) means that most land use is intensive and increasingly multifunctional.

Most lowland areas in the UK have an "agroforestry landscape". In England, each kilometre square contains on average about 4 km of woody linear features (primarily hedges). There are also significant area of wood pasture, parkland and traditional orchard systems, and on average, each hectare of land in the UK contains 6-7 non-woodland trees During the 20th century many of these features were allowed to become derelict, and hence they form the basis of priority habitat action plans for biodiversity protection.

#### Current limits of the development of agroforestry in the UK

During the 1990s, much agroforestry research in the UK focused on novel systems either involving the planting of poplars in relatively narrow (10-14 m) alleys, or silvoarable systems with ash and sycamore. Although the experiments have improved our biophysical and economic understanding of tree-crop-animal interactions, the commercial uptake of these systems is currently poor. One of the most successful

agroforestry experiments involving timber production was a silvopastoral system in Northern Ireland which produced highly marketable ash for hurley stick production. At present, the Forestry Commission and UK governmental departments have generally not promoted novel agroforestry systems and, in turn, practitioners have been denied access to some EU agroforestry grants and research programmes.

## Possible solutions to encourage agroforestry adoption

The governments in Scotland and Wales have ambitious targets for further increases in woodland cover, with additional benefits for renewable energy production and carbon sequestration. However high food prices during the past five years have also highlighted the need to maintain and enhance national food production. Moreover recent annual rates of woodland planting have been low, in part due to the increased profitability of agricultural production. Hence as agriculture is the main land use, those seeking to increase tree cover are increasingly interested in agroforestry systems.

One example of an agroforestry system in the UK that has seen recent success is woodland egg production. Although direct scientific evidence is currently limited, the perception is that rearing hens within a woodland environment offers both welfare and environmental benefits. There is also interest in the use of agroforestry systems to reduce soil erosion, improve water quality and reduce flooding.

It appears that currently the greatest opportunity for agroforestry adoption in the UK relates to systems that focus on the revitalisation of traditional systems of hedgerows, orchards, parklands and woodland pasture which are already highly valued for their biodiversity and cultural heritage. Many of these systems are already supported by agri-environment payments under Pillar 2 of the Common Agricultural Policy. Systems incorporating high value tree crops (e.g. cider apples and walnut) are also receiving renewed interest.

#### What do we expect from the European Agroforestry Federation?

- An association that takes a relatively wide definition of agroforestry: farming with trees.
- An association that measures its success in terms of the number of farmers and growers that it helps to engage in profitable and sustainable agroforestry systems.

Key to the above is that the Federation has:

- strong links with the private sector (e.g. SMEs) and farmer groups.
- a role in policy and instrument reform at EU and national levels.
- a web-presence that allows farmers and others to demonstrate agroforestry systems that are financially and environmentally sustainable.
- a web-presence that allows interaction on policy and instruments so that agroforestry systems can be supported rather than undermined within EU agricultural and forestry frameworks.
- a web-presence that provides educational resources.

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Written with contributions from members of the Executive Committee of the Farm Woodland Forum Modified 6 February 2012