

Unlocking the potential for trees on farms and crofts in Scotland:

Payment options for integrating trees into farming systems

June 2024



Overview

This report makes recommendations about the ways that trees can be carefully integrated into farming and crofting systems in Scotland, and the nature and level of payments that would be required to unlock this potential. Although it includes recommendations for small farm woodlands, its focus is on 'non woodland' opportunities for tree planting which fall outwith the scope of the Forestry Grant Scheme (FGS) agroforestry options.

The importance of trees on farms

Trees on farms offer numerous advantages to farmers and crofters, society, and the environment. When integrated carefully, they complement existing farming practices. They deliver essential ecosystem services, such as reducing pollutants in watercourses, improving water management, absorbing atmospheric carbon, and providing vital habitats for wildlife. Trees help regulate growing conditions, benefiting crops and livestock by offering shelter from wind and rain, stabilising soil temperature, reducing soil erosion, and enhancing soil fertility. They also produce valuable materials for farm use or sale, including timber, fruit, firewood, and fodder.

Methodology

Through an online workshop and separate interviews with farmers and land managers, the project identified six tree planting systems that would integrate well with Scottish farming practices and provide significant benefits to farmers and crofters, wider society, and the environment. Alongside a review of literature and evidence from experience elsewhere in the UK, this information was used to develop technical specifications for each system. Recommended grant levels for each option were also developed by combining the cost of establishment and maintenance, income forgone, and potential costs saved. This methodology conforms to World Trade Organisation standards for providing grant aid to farm businesses. The full report is accompanied by estimated overall costs to the Scottish Government.



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Key considerations



- We have recommended a **single up-front payment for all options**, which includes the cost of maintenance, for simplicity of administration and attractiveness to landowners. Effective maintenance for 10 years should be required as a condition of the grant agreement.
- Budgets of **£10 million per annum or more** would double the land involved with agroforestry and woodland in Scotland.
- These options should be made accessible to as many land managers as possible. A **simple, non-competitive application process** would encourage much greater uptake without making large spending commitments, offering good value for money.
- All areas planted under these options should **remain eligible for future 'basic payments'**.
- Land managers should be able to apply for these options **either on their own or in combination** with other habitat improvement options.
- These options could be **implemented quickly** as they have already been tested by farmers in Scotland, are relatively simple and could easily be rolled out more widely.
- We recommend that the uptake and implementation of these options is **monitored, and adjustments made** to both specifications and payment levels where necessary.
- The effective choice of species, protection and maintenance will require a degree of technical expertise that some land managers do not currently have. This should be addressed through the publication of detailed design and specification guidance, training of farm advisors, integration of basic agroforestry training into existing and future agricultural education programmes and continued support for the Integrating Trees Network.
- **Carbon sequestration estimates** should be made for each of these options to enable farmers to use them in farm carbon budgets.
- For biosecurity, conservation and optimal survival, all trees should be certified as **UK or Ireland Sourced and Grown**. (UKISG)



For more information on the benefits of integrating trees on farms and crofts in Scotland, along with case studies, please see: bit.ly/integrating-trees-on-farms



Silvopastoral: low density single trees

Purposes

Increase shade levels for livestock in future hotter summers / improve shelter / create new wildlife habitats (including birds, bats, lichens, insects, fungi, lichens and bryophytes) / carbon sequestration / landscape enhancement.

Specifications

Low density (10 – 30 trees per ha) / Protected with a 160cm cattle-proof (e.g. Cactus) guard and plastic tree guard. Trees mostly native.

Location

Improved permanent grassland fields and, where appropriate, unimproved grassland.

Grant level

Single up-front payment of £31.15 per tree.



Silvopastoral: tree enclosures

Purposes

Provide multi-directional shelter for livestock / increase shade in future hotter summers / provide tree and shrub fodder for cattle / create 'stepping stones' of semi-natural habitat / expand tree cover along watercourses / create seed source for future potential natural regeneration / carbon sequestration.

Specifications

Fenced enclosures based on standard fence rail lengths: 3.6m x 3.6m (small) / 5.4m x 5.4m (medium) / 7.2m / 7.2m (large). Dense planting of native trees and shrubs (towards the edges) with appropriate guards.

Location

This option is suitable for a wide range of locations across lowland and upland sites including improved/unimproved grassland fields, rough grazings and riparian margins.

Grant level

Single up-front payment: £195.45 per enclosure (small), £363.05 (medium) and £531.90 (large).



Small farm woodlands (<0.25ha)

Purposes

Shade / shelter / tree and shrub fodder / firewood / timber / control of runoff / protection of water margins / creation of semi-natural habitat / improved habitat connectivity / carbon sequestration / creation of seed source for potential future natural regeneration.

Specifications

Native trees and shrubs planted at a (minimum) average of 1200/ha (3m spacing) protected with 1.2m biodegradable guards and stakes and (if livestock) a stock fence.

Location

All in-bye land and on unimproved / upland sites subject to suitable growing conditions and other potential conservation interests.

Grant level

Upfront payment of £7,232/ha..



Silvoarable: alley cropping with wildflower strips

Purposes

Diversifying farm income from tree products / protection of arable soils from erosion / protection of crops from wind / improvement of pollinator habitat / improvement of soil structure / integrated pest management / habitat creation / carbon sequestration.

Specifications

Trees planted in rows within arable field, planted in strips sown with wildflower / grass mix. Protected with appropriate biodegradable guards. Rows spaced to enable farm machinery to operate in the 'alleys'.

Location

Land that is regularly cultivated and managed as part of an arable or horticultural crop rotation.

Grant level

Upfront payment: £1,147.35/ha.



Hedgerow and field boundary trees

Purposes

Shelter, shade and browsing for livestock / shelter for crops and soils / creation of new wildlife habitats (including birds, bats, lichens, insects, fungi, lichens and bryophytes) / improved habitat connectivity / carbon sequestration / watercourse protection and restoration.

Specifications

Where livestock present: protected with a 1.6m cattle-proof (e.g. Cactus) guard and biodegradable tree guard.
Where livestock not present: protected with 1.2m biodegradable tree guard and stake.

Location

Field boundaries and water margins on in-bye land.

Grant level

Upfront payment: £65.26 per tree with cactus guards (or £50.67 per tree without cactus guards).



Enhanced biodiverse hedgerows

Purposes

To create wide and diverse field boundary hedgerow habitats / quality shelter for livestock and crops / high quality wildlife habitat / improved habitat connectivity / browse for livestock / carbon sequestration / reduced soil erosion / control of runoff / optimise productivity gains.

Specifications

Enhanced hedgerows should consist of 4 rows of trees, 1.5m apart. A mix of native shrubs planted on the two rows closest to the prevailing wind, 1m apart. A mix of taller growing native trees planted in the two rows furthest from the prevailing wind, 1.5m apart. Trees should be planted in 1.2m biodegradable guards and shrubs in 0.6m biodegradable guards.

Location

All in-bye land. Minimum length of 50m.

Grant level

Upfront payment: £2,462.78/100m.

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