

Silvopastoral Woodlands



This system describes the combination of livestock grazing with tree establishment. It is best suited to sheep, as cattle require significantly larger and more substantial guards and goats are likely to browse on young trees. Cattle can be introduced at a later stage as the trees mature.

Planting is typically undertaken at 400 stems per hectare, set out at 5 metre centres and can be designed to be landscape sensitive, yet practical for access with farm machinery.

By year 12, there is no noted reduction in the quality of the pasture, but there is a noted 10% reduction in annual livestock production beyond this stage, which can be sustained with regular pruning or thinning interventions.

The benefits are the shade and shelter offered to the livestock and grasses, and although trees do increase water uptake from the soil, they also inhibit evapotranspiration from grasses. Broad observations are that pastures become ready for grazing earlier, and retain condition later into the year when compared to open pasture.

The longer term objective of quality timber production is supported by careful species selection and subsequent maintenance and pruning.

(Macaulay Landuse research Institute, no date)

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Cost of Establishment.

Provided there is stock proof fencing around the proposed planting area, costs can be limited to plants, well secured 120cm tree guards and subsequent maintenance works. Stock fencing would cost on average £5.25+VAT per linear metre, dependant on requirements for gates, strainer posts and ground conditions.

Example of a 2 hectare planting scheme (400 stems per hectare)

Design and set out with GPS unit to mark planting positions.....£350+VAT

Tree planting – bare-root 40-60 cm plant with 120cm solid plastic guards & supporting pressure treated fencing stakes and anchor peg. Plants at 5m centres . (£8.99+VAT per plant.)£7192+VAT

Bi annual herbicide application (£160+VATper annum).....£640+VAT
Annual maintenance should be budgeted for years 1-4 to secure establishment.

Beat up allowance for failed plants.....£650+VAT

Total.....£8832+VAT

Grant Support – Unlikely through current Countryside Stewardship Woodland Creation Grant (England) due to restrictions on the density of planting.

References:

Macaulay Landuse research Institute (no date) *Silvopastoral Agroforestry Toolbox*. Available at: http://www.macaulay.ac.uk/agfor_toolbox/index.html (Accessed: 2 November 2015).