

Woodlands for Water



Correctly placed woodland within a catchment can trap and retain nutrient and sediment run off, as well as reduce pesticide and fertiliser movement into water. For example a 5-15 metre wide shelterbelt can be enough to intercept sediment from erosion sources.

A 10 to 20 metre wide riparian woodland may be adequate to intercept the majority of nitrate and phosphate pollutants in surface run off before they enter a watercourse.

Shelterbelts also offer spray drift reductions of between 60-90%. A 38 metre wide new woodland can achieve almost complete pesticide drift retention.

Woodlands protect river structure and water temperatures.

With careful design at a catchment level, woodland and trees can contribute to a

reduction in downstream flooding. This is particularly as infiltration rates of water into the soil can be as much as 60 times higher in woodland areas when compared to grazed

pasture. (Environment Agency, 2011)

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Cost of Establishment

The scale, shape and positioning of the planting will determine if deer/stock fencing, tree guards or a combination will be best suited.

Light High Tensile Deer fencing (1.8 metres in height) would cost on average £8+VAT per linear metre, dependant on requirements for gates, strainer posts and ground conditions. Stock fencing would cost on average £5.25+VAT per linear metre, dependant on requirements for gates, strainer posts and ground conditions.

Planting at 2 metre centres (2500 plants per hectare) or 2.4m centres (1600 plants per hectare) should be considered for maximum benefit. Varied spacing can be incorporated easily to allow for the different requirement of the plants and the sites.

Example of a Planting Scheme 1 hectare in size at 2500 plants per hectare using 1.2m tree guards

Design and set out with tractor unit to mark planting rows if required.....£350+VAT

Tree planting – 40-60cm bare root plant with 120cm solid plastic guards & supporting softwood stakes at 2 metre centres (£3.88+VAT per plant.)£9700+VAT

Bi annual herbicide application – if appropriate (£500+VATper annum).....£2000+VAT
Annual maintenance should be budgeted for years 1-4 to secure establishment.

Beat up allowance for failed plants.....£500+VAT

Total.....£12550+VAT

Potential Grant Support (England)£9200

Grant Support – Possibly eligible for Countryside Stewardship Woodland Creation Grant (England) dependant on scale and meeting of scheme requirements. Applications for water improvement must be set within a target area, and be a minimum of 1 hectare in size. Support can be up to £6800 per hectare.

References:

Environment Agency (2011) *Woodland For Water*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/291522/scho0711btyr-e-c.pdf (Accessed: 2 November 2015).