WOODLAND TRUST

Trees or Turf?

Best value in managing urban green space

Trees or Turf provides objective comparisons of the costs of maintaining grassland with that of various types of woodland. Its findings demonstrate that, in addition to the potential budget savings, trees and woodland provide a wide range of key benefits for quality of life in urban and suburban areas.

Comparing costs

Nine regimes were chosen applicable to urban or suburban areas; five mowing treatments and four woodland types, based on a one hectare site with a path running through the middle, simulating accessible open space.

Maintenance costs were broken down into three successive phases:

- Years 1-4:   Establishment phase
- Years 5-9:   Post establishment phase
- Years 10-50: Long term management phase
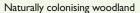
The results of the study revealed that:

- Naturally colonising woodland and pioneer style woodland can be considerably cheaper to maintain than all types of grassland

- Maintenance costs of managing woodland in managed green spaces are more expensive during the establishment phase than informal woodland but are still less than the maintenance of amenity grassland

- Complex mixed woodland planting is the most expensive of the woodland types to establish but costs are still less than the cost of maintaining amenity grassland. However, the long term cost of managing complex woodland does rise above that of amenity grassland

Regime	Average annual costs (£/ha)	
	Years 1-9	Years 10-50
Amenity grassland 50 per cent mown by hand	£2,280	£2,280
Amenity grassland 10 per cent mown by hand	£1,750	£1,750
Amenity grassland 100 per cent gang mown	£1,620	£1,620
Complex mixed woodland planting	£1,425	£2,750
Woodland in managed green space	£1,065	£1,050
Meadow grassland	£710	£710
Rough grassland	£580	£580
Pioneer style woodland	£250	£400
Naturally colonising woodland	£200	£350

Summary of the average annual maintenance costs for each landscape type

Naturally colonising woodland

Pioneer style planted woodland

Woodland in managed green space

Complex mixed woodland planting

Amenity grassland

Rough grassland

Meadow grassland

Careful consideration of tree species and siting can mean that the benefits of woodland in the urban environment are far reaching, with potential budget savings representing just one of many motives for establishing trees.

Benefits of urban tree cover

- Trees and urban greenspace improve the environment and encourages healthy lifestyles, improving public health

- Mitigation of the urban heat island effect – trees provide shade from direct solar radiation and reduce ambient air temperature through evaporative cooling

- Shelter from trees can reduce energy costs – research suggests a per tree saving in carbon emissions as a result of reduced building energy use of around 10-11kg per year

- Well designed tree planting can improve air quality, removing particulates, nitrogen dioxide and ozone.

Researchers found asthma rates among children aged four and five fell by a quarter for every additional 343 trees per square kilometre

- Surface water flooding – preliminary results from Manchester University indicate that tree canopies can reduce surface water runoff by as much as 80% compared to asphalt

- Urban tree cover provides economic advantages - a report to the Mersey Forest showed that for every £1 invested in the Forest's programme, £10.20 was generated in increased Gross Value Added (GVA), social cost savings and other benefits

- Biodiversity – urban trees and green space support a wide range of wildlife

- In some cases woodland might be used to generate timber or woodfuel for local use

Copies of the full *Trees or Turf* report, with details of the management regimes and costs, and further information on the other benefits of trees in urban areas, can be downloaded at woodlandtrust.org.uk/treessavemoney

For further information telephone 0845 293 5564

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