

**Appendix 13-G Arboricultural Advisory Information Service  
and Forestry Commission Tree Growth  
Information**





# ARBORICULTURAL ADVISORY and INFORMATION SERVICE

T & E FINANCE

RECCLESHAM • FARNHAM • SURREY • GU10 4LH

27 NOV 2006

Tree Helpline: 09065 161147

Minimum Rate Calls charged at £1.50/minute

Administration: 01420 22022

Fax: 01420 22000

Website: [www.treehelp.info](http://www.treehelp.info)

E-mail: [admin@treehelp.info](mailto:admin@treehelp.info)

RECEIVED

Ms Hannah Smith,  
East Sussex County Council,  
Transport and Environment,  
West Block County Hall,  
St Anne's Crescent,  
Lewes,  
BN7 1UE.

DIRECTOR OF TRANSPORT AND  
ENVIRONMENT

27 NOV 2006

PASSED TO .....

DATE REPLIED .....

FILE ON .....

Your Ref:

Our Ref:

Date:

16 November 2006

Dear Ms Smith

## Tree growth rates of native broadleaf tree and shrub species – FAO Mr James Newmarch

Thank you for your request for the expected height growth at 5, 10 and 15 years after planting for the eight species listed in your order number TREN/4500102138A.

The prediction of growth is inevitably subjective because there are many variables encountered in the supply and establishment of trees. However, provided the plant quality is good and the cultural practices, plant handling, planting and the post planting aftercare, are thorough and appropriate the heights shown in the table should be achievable.

I have assumed that the transplants/whips will be 60 to 90cm bare root stock.

Table of expected height growth

Species	Height (m) at:		
	5 years	10 years	15 years
Ash <i>Fraxinus excelsior</i>	3.2	6	8.5
Birch <i>Betula spp.</i>	2	6	8
Hawthorn <i>Crataegus monogyna</i>	1.5	4.5	8*
Hazel <i>Corylus avellana</i>	2	4.5	6*
Holly <i>Ilex aquifolia</i>	1	2.5	5

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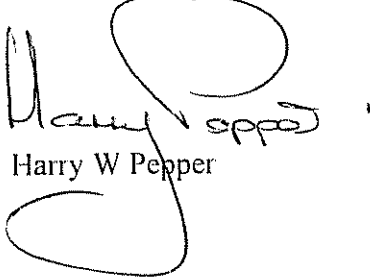
The Arboricultural Advisory and Information Service provides advice and information about trees based on research results and experience, both national and international, to arboriculturists, landscape architects, the construction industry and other professionals, also to private individuals. This service is part of The Tree Advice Trust Ltd

Species (continued)	Height (m) at:		
	5 years	10 years	15 years
English Oak <i>Quercus robur</i>	2.6	4.4	6.2
Sweet Chestnut <i>Castanea sativa</i>	2.1	3.6	5.2
Wild Cherry <i>Prunus avium</i>	3.5	6	8.5

\*The maximum height that may be expected under most conditions.

The data in the table has been extrapolated from Forestry Commission Booklet 34, various books and scientific publications and field observations and experience with planted trees.

Yours sincerely



Harry W Pepper

Signatures & Date				
Goods Received / Work Done	Price / Quantity / Description of Work	Certified for Payment		
Cost Centre / IO / Project Code	GL Code	Amount	Order Number	P/C

Please return to your local Project Clerk

## James Newmarch

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**From:** Mackie, Ewan [ewan.mackie@forestry.gsi.gov.uk]  
**Sent:** 18 October 2006 16:04  
**To:** James Newmarch  
**Subject:** RE: Heights of young broadleaved trees

Dear James,

Further to our phone conversation last week the following **top heights** (see below) are taken from the Forestry Commission publication (following reference taken from the Forestry Commission website):

### **Yield models for forest management**

Management handbook

FORESTRY COMMISSION ANON. 1981

This Booklet is part of a loose-leaf presentation of Yield Models designed to meet the widely varying needs of foresters, researchers and students. The basic set comprises booklet, ring binder and species index cards showing age/height and production class curves. A list of available Yield Models is also provided to serve as a record of models in use.

Booklet + 3 ring binders containing loose-leaf Yield Models

0855380926 £41.20

These yield models are used as the basis for management and volume yield prediction by the Forestry Commission in England, Scotland and Wales, as well as the wider industry. There are currently very few yields models for broadleaved species.

I have made the following assumptions in selecting the models to answer your enquiry:

- I have used the middle "yield class" in the range as representative. It is likely the sites you are going to plant will vary from this. (Growth potential in stands of trees in the UK is defined using the concept of yield class - in simple terms a higher yield class means a more productive site)
- The model assumes the trees have been planted at a spacing of 2.0 metres.
- There is one model covering sycamore, ash and birch. There will be some variation between species

**Top height** is defined as the height of the 100 trees of greatest diameter in a hectare of forest, this is similar to the height of the 95th percentile of heights in the stand of trees. The mean height, which is probably the value you require for modelling height development in your "visualisations" is **likely to be around 1-2 metres lower than the top height.**

And now the actual heights...

**Oak = 8.4 metres top height at 20 years**

**Ash, Sycamore, Birch = 10.02 metres top height at 15 years.**

As I suggested during our conversation we may be able to estimate heights more precisely, but it is likely to involve some cost.

If you need further information I would suggest contacting the Arboricultural Advisory and Information Service's Tree Advice service on 09065 161147 (premium rate) or via their website:

[www.treedVICESERVICE.org.uk](http://www.treedVICESERVICE.org.uk)

... as they may have more specific information for amenity and street trees.

Best wishes

Ewan

30/11/2006