



FSC UK small woods project Standards Development Group

Examples of woodlands meeting the proposed timber harvesting threshold

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Proposed thresholds for small woods

After much discussion of the pros and cons of various approaches, including trying to take into account primary objectives of management, we provisionally settled on quantitative thresholds for the woodlands to be included in the scope of this project:

EITHER management units up to 25 ha OR management units where timber production is less than 5,000 m³ per five year certificate period.

These thresholds have been ratified by the project Steering Group, but it is understood that they may be adjusted as the standard develops as part of an iterative process.

Examples of woodlands meeting the proposed timber harvesting threshold

We can probably all visualise what a 25 ha woodland looks like. It is less easy to grasp what 5,000 m³ of timber harvested over a five year period might mean. As a check on whether we are really comfortable with this threshold, I have generated three examples of what this level of harvesting might mean in practice, assuming for simplicity that 1,000 m³ is harvested per year.

As I don't currently have access to the full FC yield tables, the following examples were generated from a slightly eclectic range of sources. If anyone has any other examples they would like to share, they would be very welcome.

Sitka spruce on a short rotation with no thinning

For Sitka spruce, established at 2 m spacing, growing at Yield Class 12 and unthinned, standing volume at age 37 is 335 m³ per ha. So, assuming a perfect normal* age class distribution, the owner/manager could **clearfell 3 ha per year in a 111 ha plantation** and just about meet the threshold. (Based on table 3 in Matthews, R.W., Jenkins, T.A.R., Mackie, E.D., and Dick, E.C. (2016). *Forest Yield: A handbook on forest growth and yield tables for British forestry*. Forestry Commission, Edinburgh.)

Oak high forest

For oak, established at 1.2 m spacing, growing at Yield Class 6, with intermediate thinning every five years starting at age 25, clearfelling at age 120, and again assuming a normal age class distribution, the owner/manager could **thin 28.5 ha and clearfell 1.5 ha per year in a 180 ha forest**. (Based on figure 27 [reproduced from FC Booklet 48] in Hart, C. (1991). *Practical Forestry for the Agent and Surveyor*. Third edition. Alan Sutton, Stroud.)

Sweet chestnut coppice

For sweet chestnut coppice, the harvested volume (over 6.3 cm diameter and 90 cm length) at age 15 ranges from 50 to 110 m³ per ha. Assuming an average yield of 80 m³ per ha and a normal age class distribution, the owner/manager could **coppice 12.5 ha per year in a 187.5 ha woodland**. (Based on figures on p. 77 in Evans, J. (1984). *Silviculture of Broadleaved Woodland*. Forestry Commission Bulletin 62. HMSO, London.)

A note on total areas

The total areas given in the examples above are productive areas, so do not include infrastructure, riparian zones etc. For the Sitka spruce example, assuming 15 % of forest area for infrastructure and 15 % for non-productive wooded and open habitats, the total area would be over 150 ha.

* In case anyone is unfamiliar with the term, Hart (1991) has the following to say about the 'normal' forest:

The term *normal* is applied to a forest, woodland or group of woodlands containing a regular and complete succession of age classes, up to the most mature. It embodies the idea of a fixed rotation. At its simplest the term *normality* means that a forest has an even distribution of age classes by area, ranging from newly-planted to stands of rotation age. More precisely, *normality* implies arranging the forest so that productivity is sustained.