

**Forest Operations, Series No. 2** (The Establishment of Hardwoods).  
London, H.M.S.O., 9d.

This booklet of 36 pages is the second of a new series, the first of which (dealing with Thinning) was reviewed in Volume III, No. 1. Separate chapters deal with the establishment of oak, beech, ash, sycamore, sweet chestnut, birch and alder both by sowing and planting, and the final chapter suggests treatment for restocking various types of hardwood coppice and devastated woodlands.

The arrangement of the material is logical: the natural distribution of the species and its segregates is given first, its place in woods and plantations and its silvicultural characteristics discussed. This is followed by sections on nursery treatment, methods of planting and selection of suitable sites and tending up to establishment. The information given should prove of real service to all foresters, summarising as it does the results of twenty-five years of

experience and research involved in the establishment of 35,000 acres of hardwoods.

Irish foresters will note that some practices common here are not mentioned. Autumn sowing of acorns in the nursery under heavy cover is not mentioned in spite of the difficulties of storing acorns without risk of premature germination or damage by dessication according as storage conditions are too damp or too dry. The planting of small oak groups of about 20 plants, set 18 inches apart, the groups being 15-20 feet apart centre to centre in a matrix of conifers has been favoured here but the practice is not apparently favoured by the Forestry Commission. Strip planting is preferred with a spacing of 8 feet between adjacent rows of conifers and oak. The complete omission of elm from this booklet is rather disappointing.

The insistence on confining ash and sycamore to really good sites is to be welcomed, especially as there is such a temptation to accept natural regeneration of these species in restocking woodland. The warning against planting ash in grassland is fully borne out by experience here even where soil and local climatic conditions seem favourable. On the other hand the assertion that both the silver and common birches "are so similar in their characteristics that they may be treated as one from a silvicultural point of view" appears doubtful. On better soils the silver birch usually gives a better bole and grows taller while the common birch is more tolerant of a high water table.

An interesting point in cultivating chestnut is the recommendation to cut back all plants to ground level at an age of 6 to 8 years and to thin the resulting shoots speedily until only the straightest is left.

At the modest price of ninepence, this simply-written and attractively produced booklet should be in the hands of every forester and woodland owner.

T. McE.