Forestry Practice. Bulletin No. 14, Forestry Commission. London: His Majesty's Stationery Office. Price 2/-.

This is a partially revised edition of the bulletin issued originally in 1933. It is remarkably good value for the money as it covers the entire gamut of forestry or rather re-afforestation as practised by the State Forest Service in Great Britain and in addition carries chapters covering wood preservation, marketing, working plans and the newly adopted scheme whereby estate owners may dedicate their woodlands to the State.

The practices recommended are those which have been used by the Forestry Commission since they started work in 1920. Many are based on well tried methods long known to commercial nurserymen and estate foresters throughout England and Scotland; others have been evolved by the Commission's own officers in the course of their duties. They are practices suited in the main to large scale application and the bulletin appears to have been compiled more for the benefit of the owner wishing to afforest an extensive tract of bare land than for the small proprietor anxious to rehabilitate the woods of an ordinary private estate. The style of the compilation is chatty, one might say almost slangy, but in spite of this it is not always easy to understand and the absence of photographs and diagrams is bound to render the description of some operations quite incomprehensible to the novice.

The raising of planting stock from seed and the general management of a nursery is covered by three chapters. Methods of soil preparation, the sowing of seed and the lining out of seedlings are described and convenient tables show the quantity of seed to be purchased for each acre of plantation, the number of plants required at different densities and other useful data. A method found successful in Ireland for the protection of autumn sown Beech, Oak

and other succulent seeds against mice and rats receives no mention. This method entails the piling of soil to a depth of six inches or so over the newly sown seed. The heavy cover prevents the attacks of rodents during the winter and the surplus is carefully scraped off

before the seed begins growth in spring.

Chapters IV to VI deal with the establishment of plantations. The preparation of the ground, drainage, fencing and the selection of species are described. The latter difficult task has been reduced to the compass of a brief table. This is surely an over-simplification. The selection of the correct species of tree for ground which has not previously borne trees is a complex and hazardous undertaking. Factors of geology, geography, meteorology and economics must receive detailed examination and a decision based on skimpy indications such as are given in this bulletin may lead to tragic results. Not many foresters will agree that Sitka spruce "thrives on most kinds of peat" and that Scots pine is apparently suitable for exposed sites except where the ground is soft. It is surprising that no differentiation is made between Sequoia and Wellingtonia in their ability to withstand constant wind as it is well known that the latter will thrive exceedingly in places too bleak for Sequoia.

A number of different methods of planting are described; ordinary pit planting with garden or nursery spades, pit planting with semi-circular spades "like over-grown trowels" and notch planting with common or special Schlich pattern spades are all treated. In these days of expensive plants and transport it would seem that over-emphasis is laid on rapidity of work. Cheap planting all too often leads to costly replacements and, more especially for

the private owner, can be false economy.

The section on thinning has been completely re-written. It codifies the "low thinning" practices of the Commission in their treatment of experimental stands and makes recommendations for the thinning of plantations of all the common conifers and hardwoods and of mixtures. These recommendations are based on the well known theoretical divisions of the tree stems into canopy classes called dominant, co-dominant, sub-dominant and so on, a division excellent in theory but, alas, full of pitfalls when it is sought to apply it to the average wood which refuses to conform to any rigid classification. The concentration on the method of "low thinning" to the exclusion of all other methods is not likely to suit all cases or all purses. For some markets the removal of many of the largest trees may be economically justified and not sylviculturally unsound and on many private estates the revenue from early thinnings is of paramount importance and its loss may jeopardize a whole forestry scheme. There is one diagram in this section, the only one in the whole bulletin.

Chapter VII contains useful information on the prevention of forest fires, on insect and fungoid pests and their control and on forest tools and appliances. A list of firms manufacturing and supplying equipment is given and this should prove of value to owners starting forestry work.

Chapter VIII deals with utilization. It treats of the classes of merchantable timber and minor produce and explains the methods of selling which may be adopted and the organization of sales. The subject is regarded solely from the point of view of the producer and the timber merchant is painted as a tricky gentleman who needs careful watching, a sentiment natural enough in its way but extremely rare in government publications. A section on wood preservation points out a simple way of turning less valuable material

into saleable produce.

The final chapter is devoted to questions of working plans, account keeping for income tax purposes, the law relating to death duties on woodlands and the scheme of dedication adopted in the 1945 Act. This last has no counterpart in Ireland. When woods are dedicated the owner undertakes to work them in accordance with a plan approved by the Commissioners. The Commission for its part agrees to furnish financial assistance by way of grants and loans for forestry purposes on private lands and presumably to give all necessary technical advice on the establishment and management

of dedicated plantations.

Considering that the bulletin is written for private owners, agents and foresters it is strange that the peculiar needs and problems as well as the advantages of tree growing on the ordinary estate receive scant mention. Most private owners wish to stock ground already partly covered with trees. Questions of amenity and shelter and in many cases game preservation are uppermost in their minds and they will be loth to order clear felling or to adopt the barbaric custom of "ringing" recommended in this bulletin. The wisdom of the complete clearance of all woody growth before planting on the score of convenience is controversial and the recommendation to cut down everything on the ground in the way of stool shoots seems to ignore the beneficent influence of shelter from winds and hot sun and the value of leaf fall to soil fertility as well as the advantage of grass suppression. An enthusiastic man may wish to train some of the advance growth by careful pruning and there can be no doubt that with judicious selection of stems and continued treatment excellent results are possible. So, too, with systems of natural regeneration. Many of the recognised methods such as the selection, the uniform and the group systems are well suited to demesne conditions and their adoption would give an interest to a private owner and yield better results than any artificial restocking would ever do.