BOOK REVIEWS


A statement in the Introduction to this paper: "... in the absence of an impartial economic analysis, the allocation of land between farming and forestry has necessarily been a matter of rule of thumb and common sense negotiations" will seem to be rather euphemistic to most foresters, but it includes the aim of the study. There can only be general agreement with the ideal of an impartial analysis, and the addition of this paper to the relatively slim worthwhile literature on the subject is of value to forestry here and elsewhere. The reservations which seem necessary are part of the conversion from emotional to technical arguments mentioned as an aim of the paper.

The thesis was published to make the results more widely available, and the absence of any discussion of Walker's work in the United Kingdom and Trelorrowand Morrison's work in Western Australia (although both papers are listed in the bibliography) is a surprising omission, particularly as they showed similar general results in that forestry can become an economically competitive user of land. A review of the techniques used and results obtained in the more direct literature would have been as useful as that concerning the perfection or otherwise of the markets.

The treatment of the literature elsewhere shows notable discrepancies — for example, on p. 59 there is an altogether unsatisfactory discussion of likely prices for tended sawlogs based on a paper of C. H. Brown. The paper contains no economic arguments and must in fact be the one published by the same author a year later; if so, then other errors appear. Chisholm gives three reasons for reducing the stumpage enhancement given in Brown and Fenelon's model — the first being that the enhancement was based on the use of band mills, which are then considered unlikely to be representative of future sawmills serving normal country forests. There are three mistakes here: a direct one in that the original paper referred to gang, not band mills; the second one is that, in fact, there is an efficient bardmill operating in the study area itself (Marton), and a further one being built at Riverhead partly to saw sand-country trees; and thirdly, and more fundamentally, decreased sawing costs are common to most types of mill with enhanced log age.

The second of Chisholm's reasons is that a higher capital investment would be required for milling equipment to produce high quality timber; this again overlooks one very efficient circular mill in the area studied in the thesis, and which has quite a low capital value. Further, it also brings into the argument the value added by the processing plant which, for other reasons, were excluded from this study.

Chisholm's third reason is most illuminating, namely Brown's calculations are based on production of board timber only, whereas a substantial portion of the timber supplying the Wellington market
will be framing", but nowhere in the paper is any analysis given of the interaction of silviculture and utilization required to produce the market requirements and there is little comprehension of the idea of silviculture being so directed. This is akin to a forester working out an agricultural budget for, say, dairying, and then discounting prices because beef from jersey cows is less profitable than butterfat.

The other forest product, besides sawlogs, is round produce where the stumpage allowed has been halved to 6d. per cu. ft, on the basis of Forest Service opinion that round produce prices will fall. This reviewer's paper on round produce prices appears in the bibliography and is only quoted once in the paper itself (quite incorrectly as an indicator of intensive silvicultural practice), and it would have been relevant if the reasons for a reduction in stumpage for round produce had been given in detail. It has been argued recently that £2 10s. per 100 (6d./cu.ft) is a low stumpage for posts.

Consequently, it is felt that one half of the forest budget—that dealing with prices—should be treated with reserve. As far as costs are concerned, the paper bases its argument on land expectation values, and has used the Faustmann formula to evaluate them. Now this formula is, in practice, a most cumbersome tool to evaluate forest profitability where a forest has to be built up from bare ground; a more accurate procedure is to build up costs on a yearly basis as one proceeds. For example, in this study the direct overheads of wet weather and holiday pay are charged on an acreage basis, yet there is no mention of the total labour employed; this is inadmissible in a paper which is a model, as this overhead obviously depends on the intensity of labour envisaged and the extent of contract work. Similarly, social costs are included in routine forest management costs and hence are difficult to extract as such—consideration of their importance in Walker's paper should have prevented this.

One quite unacceptable statement occurs in a discussion of allocation of capital in a situation where capital is likely to become restricted (certainly a valid situation to consider); Chisholm says that while agriculture is capable of becoming extensive, forestry is "an all or nothing enterprise". This is breathtaking and ignores the possible range of silvicultural activity from direct seeding at one end to intensive multi-stage pruning at the other.

Among interesting points raised is the question whether or not excessive amounts are spent in protecting young forests from fire or whether it would not, in fact, be cheaper to run the risk of replanting instead up to a certain age.

On the agricultural budgets, the reviewer is not competent to speak—it was frustrating to have one's attention drawn in the introduction to the cost of fencing, then to find it given as a per acre cost but without any mention of the basis of subdivision which could convert it to a cost per mile intelligible to forestry.

There remains the question whether forestry and agriculture are treated equally throughout. It is unfortunate in a paper which stresses the objective approach that such subjective remarks occur as those on p. 6, namely "Taranaki... has a negligible area of land on which it is likely that forestry could compete with agriculture". Now this is what everybody says, but scarcely what should appear in an objective assessment. Again, on p. 22, the dynamic
nature of agriculture on this class of sand country is mentioned, but there is no comparable idea presented of, for example, the low costs of establishment at Woodhill, with its remarkable inventive flair, of the use of work study and of contract work in forestry or even of the possibilities of fertilizer response by trees. On p. 34 is a statement "The common argument that forestry provides profitable employment of labour and capital, additional to that in agriculture, because of the higher degree of processing of the raw product, is in the author's belief at least partly erroneous. Firstly, the point in the processing chain at which a comparison is made is only important when subsequent processing industries are obtaining a return to capital which is below or above the average market return. Secondly, agriculture has a higher quantity of servicing industries before the product leaves the farm gate; and thirdly, the returns from the subsequent wood processing industries will not be realized for 30 to 40 years and hence should be corrected to a present value." The third point is appropriate, if post treatments and sawing thinnings are allowed for, but no quantitative evidence is adduced for the second point—in fact the absence of employment figures is one of the disappointing features of the study; the first point is not taken further in the thesis and here one can sympathize with the author, who presumably wished to complete the study.

This review has been largely a list of adverse criticisms, but these should be interpreted mainly as warnings to readers not to quote the results as such, but to form their own opinions as to their value. Overall, this paper contains a great deal of interest; there is a minimal amount of economic floss, a very readable account of forestry as seen from the outside (although at times it seems as if from a great distance) and of agriculture from, presumably, the inside. One important result has been the publication of a large amount of forestry cost data, which, it is recommended, every forester spending money on forests should read in order to see just where the money goes.

R.T.F.


South African forest practice has always been of great interest to foresters managing exotic conifers outside the Union; in fact, the influence can be detected in other parts of Africa if not beyond the continent.

This attractive book, compiled by Mikael Grut, a lecturer in forest management at Stellenbosch University, is claimed to be the first to deal with the whole field of forestry and forest industries in South Africa and this it does uncommonly well. The author has drawn on a wide range of government reports and other publications to present a slim volume of 112 pages, more or less equally divided between the two major subjects.

There is a familiar ring about the history of forestry in South Africa. The cycle of devastation, conservation and afforestation started earlier (1711) and has long since reached the stage of total committal to an exotic forest economy, based on 2.4 million acres (1960).