number of stems is, I think, clumsy. It is based on the number of stems at age 20 years, so in predicting the future number of stems for a stand over 20, it is first necessary to estimate stand basal area at age 20; then basal area at the future age is estimated; and finally the future number of stems is calculated from the present number by applying the ratio of the percentage number at the future age to the percentage at the present age.

An appendix shows the regression equations from which the graphs and yield tables were derived, and provides brief explanations. Most of these explanations are too brief; and, except for the stocking percentage, the authors do not state why they chose the particular variables as the basis for some of the relationships. Also, except for the trend of the stocking percentage relationship, no results of accuracy tests are included. Tests of the residual error of all the equations could have been done on the basic data for all species, and tests of the trends of the basic variables by age could have been done for loblolly pine on the data from the 55 permanent plots used to test the trend of the stocking percentage on age.

In spite of these small criticisms, this book should be of great general interest to any forest managers growing even-aged timber crops. It should also prove invaluable to forest mensurationists for the new techniques of preparing the yield tables and graphs. The paper, printing and reproductions are all of very high quality.

—C.D.


This, the latest volume in the American Forestry Series, is one of those encyclopaedic books which seem to be the prerogative of American university teachers. In almost 600 pages Professor Duerr, who had many years experience in the U.S. Forest Service before his appointment to the Chair of Forestry Economics at the College of Forestry at Syracuse, surveys a far wider field than is usual in such texts. The forester who looks through the book for the familiar sections on yield tables, rotations, species and the occasional complicated formula, will find himself dipping into political and social institutions in forestry, the forest economy of the world or social planning for forestry. These are found in Parts IV and V of the book.

The core of the book lies in Parts II and III which deal with the supply of forest products and the market for them. The former, which extends over eleven chapters, is in essence an introduction to production economics. Professor Duerr introduces some basic economic concepts — marginal cost and revenue, production functions, least cost combinations, capital and interest relationships — and shows how they may be applied in management planning for
the firm. This approach will serve a useful purpose in introducing fundamental concepts to those who have little previous experience in this field. It does, however, leave an impression of economic theory illustrated by forestry examples rather than the use of economic techniques in "real life" decision-making. This might have been overcome if Professor Durrell had compressed the chapters on economic principles, which are extensively covered in other books, and extended his two short chapters on management planning and methods. These would have been strengthened by further discussion and detailed application of the methods advocated (budgeting, marginal analysis and "break even" analysis) and by some reference to the more recent programming techniques which are applicable to certain forestry operations.

The seven chapters of Part III, *The Market for Farm Products*, provide a general introduction to the theory of demand, price determination, marketing and forestry valuation, but again are primarily theoretical or institutional rather than empirical in nature. The chapter on *The Demand for Farm Products* is particularly disappointing in this respect.

The broad scope of this book, together with the rather wordy style and the many questions and asides, indicate that it has been written as the textbook on forestry economics for students obliged to take this subject as part of a general course in forestry. It may appeal to undergraduates and to others coming to the subject for the first time, and they will certainly be stimulated to think about their vocation in a much wider framework. Senior students and those wishing to follow up their own interests in depth, however, will wish to turn to more definitive though narrower texts.

J.T.W.

FINANCIAL MANAGEMENT OF LARGE FOREST OWNER SHIPS. Yale University School of Forestry: Bulletin No. 66. 1960. Yale University, New Haven, Conn. 124 pp. 2 dollars.

This is a series of seven papers presented at the thirteenth Industrial Forestry Seminar, New Haven, Connecticut, in January 1960.

The first paper, which occupies almost one half of the 124-page book, is written by a forest economist, and deals with what he calls the "highly capitalistic nature of timber production". The writer stresses the need for maintaining the value of the capital asset and realisation of an earning rate that satisfies the "guiding rate of return" rather than early returns at the expense of the principal asset. This is quite a stimulating paper.

The second paper, by a financial consultant, deals with capital investment in timberlands from an investor's point of view. Though essentially it deals with American conditions, it is a very readable