

Chapters 7-10 in the present edition replace chapters 5-7 in the earlier edition. The earlier chapter on manuring and cultivation did not discuss nutritional requirements of the crop or foliar deficiency/diagnostic symptoms. The present edition includes a discussion of these topics and provides several new references. The chapter on cultivation and maintenance of adult plantations has been revised to include discussions on intercropping of coconut gardens with cacao, banana, and fodder crops, an aspect which is gaining importance in several other countries. Also, raising of cattle and other livestock on the farm has received the author's attention. These changes reflect the author's laudable attempt to keep up with modern trends in the requirement of the coconut farmer. It is refreshing to note that the revised version of "general note on control of insect pests" (Chapter 11, pp.199-201) takes note of the shifting emphasis in science. In the earlier edition, the accent was on economy (of biological control of coconut pests). In the present edition, the author emphasizes the need for ecological considerations before extensive chemical sprays are used. In general, the chapters on pests and diseases, and products remain unchanged but the author has included several new references and has attempted to make the discussions current. Information on the so-called diseases of obscure reasons still continues to be sketchy and until researchers provide more definite information, the situation cannot be expected to be any better. For example, the 'wilt (root) of Travancore' has been appropriately renamed as 'Kerala wilt' in the new edition, but no new information has been added and there are only two references on it cited at the end of the chapter.

The author has added several new references at the end of each chapter. In the new edition references are listed subject-wise. The references include several publications and reports, especially back volumes, which are not easily available in most of the libraries and with individuals. This adds to the value of the book.

This has, no doubt, been accomplished because of the author's long years of service in more than one tropical country and his personal visits to several coconut growing countries of the world. While this is, no doubt, very commendable, one is left with a feeling that the compilation shows to some extent an

unevenness, in that information from some important regions as the tropical west Africa, the Philippines, and India is less than what has been given for Sri Lanka, West Indies, and the Pacific region. One would hope that this slight omission will be taken care of in the next edition of this book.

The publication contains 27 plates. These include practically all the 23 plates which were included in the first edition. Since all the coconut growing countries have been, and are still, undergoing tremendous social and economic changes since the last 2-3 decades, one would have wished that the second edition would include in it more recent photographs from these regions. Many photographs would carry an impression that the various aspects of cultivation and processing are still being carried out in these countries on a more primitive and simpler level than what it actually is at present. Notwithstanding these minor omissions, the book will be highly valuable and even indispensable to all those interested in the culture, development, and research of coconut.

To sum up, the author has presented information on different topics in a comprehensive manner that reflects his long association with the crop and the coconut research community and his profound knowledge. In these days of over-specialization when, as a rule, no single author finds himself confident to write authoritatively on different aspects of a single crop, the author's success is commendable. In keeping up the tradition of the other books published in this series, this book is also attractively produced. However, the cost of £ 10.00 puts it beyond the reach of practically every individual in the developing countries of the world. (K. V. A. BAVAPPA, Central Plantation Crops Research Institute, Kasaragod 670 124, Kerala State, India.)

Tropical Crops: Monocotyledons. By Purseglove, J. W. (1972). pp.607. Second impression in one soft-bound volume, 1975. £ 5.50. Longman, London.

This book is a sequel to *Tropical Crops: Dicotyledons*, published by the author in two volumes in 1968. The present book is a second impression in one volume of a book originally published in two volumes in 1972.

The author Mr. J. W. Purseglove has over three decades of experience as an agriculturist and botanist in the tropics of East Africa, the West Indies, and Singapore. He is now working as a Tropical Crop Specialist for the Overseas Development Administration at the East Malling Research Station in the U.K.

The book presents information on the economic botany and agronomy of practically all the monocotyledonous plants which are useful to man. They number over 500 ranging from rice and millets to several which are only marginally used and are distributed over 16 families. The author has used his vast experience in the treatment of several species. At least the more important of these species are dealt with under several sections as uses, origin and distribution, systematics cultivars, ecology, structure, pollination, germination composition, propagation, husbandry, major diseases and pests, improvement, production, and trade. The discussions on individual crops and families are followed by a selected list of references. About 75 general references are given at the end also, as also a glossary spread over about 10 pages and an appendix, about 15 pages long, which gives the scientific name, family, common name, important uses, and origin of all the material treated in the text.

The scientists and development workers in tropical countries and also those of the temperate regions who opt to work in the tropics are only too familiar with the frustrations and difficulties in obtaining authentic information on the various aspects of all but the most important tropical crop plants. They have had to rely on a few text and reference books like Hector (*Introduction to the Botany of Field Crops*), Burkill (*A Dictionary of the Economic Products of Malayan Peninsula*), Dalziel (*Useful Plants of West Tropical Africa*) and the even now valuable six volume treatise Watt: *A Dictionary of Economic Products of India*, published towards the end of the last century. A revised edition of this is being brought out under the title *Wealth of India: Raw Materials*, by the Council of Scientific and Industrial Research, New Delhi (not by the Indian Council of Agricultural Research, New Delhi, as given in the book under review, p. 543). For this reason, all those with interests in the botany, cultivation and uses of tropical plants will be thankful to Mr. Purseglove for bringing out this publication. In these days

of spiralling prices, which is even more acutely felt in books than in other items, it is also refreshing that the publishers have brought down the price to £ 5.50 from the original price of £ 8.00 (as far as I recollect). One would only wish that the English Language Book Society will bring out an even cheaper edition of this book to bring it within the means of all the workers in Third World countries.

The treatment of most of the important economic plants have been taken out mostly from single volume monographs on these crops, a number of which have been published in the last 20–25 years. To that extent the information is also reliable and also not up to date. Also, the data for practically for all the crop plants, particularly those regarding production also suffers from the same problem. I wish that the author had used the FAO's annual publication, *The Production Yearbook*, at least for those for which data are given in it (*e.g.*: Sorghum). A few crops like *Amorphophallus companulatus* – which is at least as important as *Colocasia* – has been treated in a cursory manner. There are a number of errors regarding the treatment of geographical entities, for example Ceylon for Sri Lanka, East Pakistan for Bangla Desh, Travancore, Madras, and Mysore for Kerala, Tamil Nadu, and Karnataka, and so on. This, of course, is understandable in a world as ours at the present time with everchanging borders and names and it may be really difficult, if not impossible, to give these correctly in any publication. There are also a few spelling/printing mistakes as *MacNeice* (p. 304) for *MacNeish*, *Pandanus odoratissima* for *P. odoratissimus* (p. 512), *IAA* and *IBA* for *IAA* and *IBA* (p. 410), etc. Also, a few wrong nomenclatural uses, as for instance, *Oryza breviligulata* should be *O. barthii* (pp. 161–198). Then there are also one or two instances where the measures are given in the British system (p. 355), as against the metric system given throughout the book. The treatment of betlenut palm *Areca catechu* (pp. 434–440) also suffers from several errors regarding chemical composition, production, and conflicting statements (“Flowering begins when 4–6 years old” and “. comes into bearing at 7–8 years old”). It is obvious from these errors that the author has been relying primarily on monographs or reviews several of which are many years old. More reference to primary and recent publications would certainly

have helped to avoid these errors. This, of course, is admittedly a really difficult job for preparing a book of such wide scope and coverage as the present one. The references given at the end of each section also suffers from some unevenness in that in several cases less important references are given while the more important ones are omitted. Many tropical crops, particularly the cereals, have seen tremendous improvement efforts in the last few years and these are not properly brought out in the discussions, see for instance, the discussions on bajra, Sorghum, rice etc.

The errors and omissions given above are only meant for being taken note of for a new edition that the author and publisher may choose to bring out at a future date. They

do reduce the authenticity of this book as a source of reference, but does not at all diminish its value as a ready reckoner and reference volume on the monocotyledonous tropical crops. To that extent, it is one of the most invaluable publications to come out in recent years. It should certainly find a place in the libraries and collections of all institutions and individuals having interest in the botany, improvement, and agronomy of crop plants. (N. M. NAYAR, Central Plantation Crops Research Institute, Regional Station, Vittal 574 243, Karnataka State, India).