BOOK REVIEW

Physiological and Molecular Approaches for Improving Sugarcane Productivity. Shrivastava, A.K., Solomon, S., Banerji, R., Rai, R.K., Singh, P., Singh, I., Jain, R., Varma, M. and Srivastava, M.K. (Editors, 2004). Indian Institute of Sugarcane Research, Lucknow - 226 002, India. pp. 242.

Improving sugarcane productivity is the need of hour to meet the growing demands of burgeoning population. Today, there is a pressing need for sugar, fuel, fibre, feed and furonic medicines which are profitably obtained from sugarcane and its by-products. The crop is exposed to vagaries of nature in the form of biotic and abiotic stresses and therefore, augmenting sugar productivity under such conditions is an imperative necessity. Extensive research and management efforts are being made to increase sugar productivity *per se*. The Indian Institute of Sugarcane Research, Lucknow has organised a Summer School on *Physiological and Molecular Approaches for Improving Sugarcane Productivity*, wherein earnest efforts have been made to acquaint the participants with the latest developments in this area of specialization. This manual contains excerpts of the lectures delivered by the learned experts in the relevant fields of specialization which will be of immense use to all those who are engaged in sugarcane research and management.

(Ishwar Singh)

Sugarcane. Glyn James (Editor, 2004). Second Edition (Oxford, UK; Blackwell, vii + 216 pp, ISBN 0-632-05476-X, £ 69.50)

This is an updated version of Blackburn's Sugarcane first published in 1984. The introductory chapter covers the history and botany of sugarcane. The following chapter on plant improvement reviews the contribution from plant breeders in improving sugarcane productivity. This chapter is richly referenced with 214 papers. Diseases and pests of sugarcane, are discussed with descriptions and control of the main diseases and pests. The other chapter on sugarcane agriculture concentrates on cultivation, weed control and irrigation and drainage. The section on irrigation and drainage is particularly detailed with description and discussion of systems used. There is a useful table on irrigation and drainage websites. The following chapter on sugarcane agronomy outlines soil and production management problems encountered in growing plant canes and ratoons. One chapter reviews the selection and management of the harvesting system and cane transport including discussion on manual cutting and potential yield loss from mechanised harvesting through poor basecutter blade maintenance. Chapter eight critically reviews three main types of cane payment systems in existence. The final chapter on project planning discusses effective utilization of resources (land, water, people and finance) in a sugar project. This book is intended for beginners and students works on sugarcane agriculturalists and cane growers who will no doubt find it informative.

(G.P. Rao)