Book Review

Abiotic Stresses Affecting Sugarcane : Sustaining Productivity

(Year of Publication : 2006,

Publisher : International Book Distributing Company, Lucknow, INDIA,

Pages : 322, Price : Rs. 1495/-)

Sugarcane and sugarcane-based agro-industries are instrumental in socio-economic transformation of rural masses in the developing countries. However these cane growing countries constantly face vagaries of nature impeding growth and productivity of sugarcane and other crops. It is practically impossible to provide favourable conditions to sugarcane crop for all the critical stages so as to realize its optimal production potential. The growth and development processes in sugarcane are marred by abiotic stresses like drought (and shortage of irrigation water), flooding/waterlogging, salinity, high and low temperatures, soil related problems and emerging nutrient deficiencies and pollution. Besides, cyclone and winds, especially in coastal areas, also affect productivity. Sugarcane requires large amount of water but it cannot withstand "wet-feet", has certain temperature optima for various growth processes and stages of development. Poor natural ripening conditions like high

temperature and excessive rainfall/soil moisture exist in most of the sugarcane growing areas of the world. Low temperatures prevailing at harvest, especially in subtropical areas, affect sprouting of stubble buds *vis-à-vis* productivity of the subsequent ratoon crop- the integral component of sugarcane production system.

The book authored by Dr. A.K.Shrivastava and Dr.M.K.Srivastava reviews the impact of biotic and abiotic stresses on the quality and quantum of sugarcane. The agro and molecular technologies have been discussed to minimize the effect of biotic and abiotic stresses on sugar productivity. These strategies will go a long way in sustaining sugar productivity in times to come. This book will be extremely useful for researchers and cane development staff of the sugar industry.

(By Dr. S. Solomon, Indian Institute of Sugarcane Research, Lucknow India)

Sugarcane at a Glance

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Pages : 252, Price : Rs. 350/-

The present compendium, *Sugarcane at a Glance*, authored by Dr.Ashok K. Shrivastava provides a bird's eye view of sugarcane, sugar and sugar industry since its inception till modern times. A range of interesting topics such as national and international scenario of sugarcane, its growth, development, terminology used with this crop, various aspects related to crop production practices, ripening, juice quality, staling, milling, sugarcane varieties, pests and diseases affecting sugarcane constraints to sugarcane productivity, new equipments and process technologies developed, how to improve recovery during early and late crushing period, diagnosis of field problems, effective development planning for a mill area, sugar organizations at the national and international levels etc, have been discussed in brief and make interesting reading. It also includes information about important books related to sugarcane, sugar and sugar analysis, introduces latest developments in sugarcane agriculture, compares to sugar producing giants, Brazil and India, etc.

This informative book will be of interest to all those who are related to sugar industry, farmers, planners and those who would like to know about sugar crops.

(By Dr. S. Solomon, Indian Institute of Sugarcane Research, Lucknow India)