The book entitled *Plant Biochemical Regulators* compiles previously published and recent information on plant growth regulators. At present, when considerable research is being conducted on the practical aspects of various types of growth regulators, this book provides an introduction into the biochemical mechanisms of their action and points the way to future research. However, the term *biochemical regulator* is a misnomer, since most regulators act biochemically one way or the other. The fundamental aspect of regulators referred to in this book is their capability to alter plant development, and hence the term *plant growth regulators* is more appropriate as a title.

Interaction between time, genetic potential, and environment and their effects on the endogenous balance of hormones regulates the growth and development of plants. These processes can be altered by the application of exogenous plant growth regulators. The discovery of the phenoxyis in the 1940s and its impact on revolutionizing agriculture is a prime example of plant growth regulation. Renewed interest in the field of plant growth regulators is essential and this book, consisting of six parts, is a desirable addition to an understanding of plant growth regulation.

The six parts deal with different topics although Part 4 on growth retardants could have been combined with Part 1 since growth retardants interfere with the isoprenoid pathway. This part deals with substituted amines such as MPTA and DCPTA that regulate carotenoid and rubber biosynthesis. They could be used for enhancement of desirable food color, and increased rubber production in guayule plants. Under Part 2, although the chapter on environmental regulation of cellular protective systems is a good description of protective systems, the role of plant growth regulators is less clear. Chapter 5 deals with an important topic of source-sink relationships and specific areas of research for regulation of these relationships are discussed. The chapter (6) on lipid metabolites is highly speculative. The concept that peroxidative metabolism of lipids can give rise to signals that can act as second messengers is challenging and needs testing. Chapter 7 is a good review article on the role of growth regulators is tissue culture. Biologically active natural products including fungal metabolites and their potential use in agriculture is covered in Chapter 8. The use of monoclonal and polyclonal antibodies in plant research are reviewed in Chapter 9, and it is suggested that more plant scientists use this powerful technology. Several essential procedures used in monoclonal antibody research are described by the author. The section on plant growth retardants (Chapter 10) deals mainly with gibberellin inhibitors and their side-effects and these aspects are well covered. Chapter 11 presents data on the use of some specific growth regulators in alleviating salt stress of cotton. The use of tertiary amines as plant growth regulators which was discussed earlier in Chapters 2 and 3 is again dealt with in Chapter 12. Results indicate that these compounds increase net-carbon assimilation, photosynthetic mobilization, and biomass gain leading to increase in crop yield. Chapter 13 is a comprehensive and an excellent coverage on the status and future of plant growth regulators in agriculture. The book ends with a useful chapter (14) on non-destructive analysis of plants.

Most of the chapters in this book are highly specific except for the last two chapters (13 and 14). The suggested list price is high and hence useful only as library reference material.—R.A. FLETCHER, Department of Environmental Biology, University of Guelph, Guelph, ON Canada N1G 2W1.