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Handbook of Bioenergy Crops: A Complete Reference to Species, Development and Application By N. El Bassam. London and Washington DC: Earthscan (2010), pp. 516, £150.00 ISBN 978-1-84407-854-7.

The current major sources of energy, namely fossil fuels and nuclear, are unsustainable and non-renewable, hence there is a determination worldwide to move to renewable types of energy. The largest contribution to renewables, in the short to medium term, is expected to be derived from biomass, and fuels from energy crops have the advantage of being sufficiently similar to fossil fuels to enable direct substitution. The *Handbook of Bioenergy Crops* aims to describe various aspects related to the potential of bioenergy crops including environmental, economic and social dimensions.

The book consists of three parts. Part 1 gives the background to global energy production and the consumption and potential of biomass and discusses technical aspects such as biomass productivity, harvesting and conversion to energy. Part 2 is the major part of the book and consists of a comprehensive guide to a wide range of bioenergy crops from the little known, e.g. Aleman grass to the more familiar, e.g. willow. Species distribution, ecological requirements, propagation, production, processing and utilization are covered for all 64 crops. Part 3 reviews research and looks to future prospects for groups of crop types/bioenergy uses of crops including ethanol, oil, biogas, hydrogen/methanol and underutilized/unexploited types. The handbook provides a lengthy list of references and also gives relevant internet resource links for particular chapters.

This book is an extremely useful reference for students, researchers and others wishing to gain a greater understanding of issues associated with bioenergy crops and to examine the details for individual crop species.

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Climate Change and Crop Production Edited by M. P. Reynolds. Wallingford, UK: CABI (2010), pp. 292, £85.00 (hardback). ISBN -13: 978-1-84593-633-4.

If you want to know about climate change – What? Where? When? How much? – then this is not the book for you. Rather, this book accepts established projections coupled with recognized uncertainties and then considers the problems that face agriculture, and what technologies there are that may help to alleviate the problems associated with a changing world climate.

The book is logically structured from its introduction and consideration of scenarios and their economic impacts through a series of chapters each dealing with means to avoid or cope with particular sets of stresses, e.g. disease, heat and drought, salinity and waterlogging. The later chapters become progressively esoteric, from greenhouse gas mitigation, conservation agriculture and soil microbial communities to biotechnology (genetic modification), simulation and statistical modelling.

Authorship of the 14 chapters is drawn from a range of research institutes and universities, ensuring well-informed approaches to the problems. The timescale being viewed is the period from now until 2050 or 2080 – a period that extends beyond the life spans of most of its readers but yet is very imminent. Given the rising human population, the lessening area and quality of agricultural land and the time required to breed for adaptation to greater stresses, the problems being examined need urgently to be addressed.

Over the whole, this book provides an advanced coverage of a wide range of topics related to climate change and agriculture. One might not agree with the emphases given to all the subjects but each is well supported by a good set of references.

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