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Crop Yield Response to Water. FAO Irrigation and Drainage Paper 66. By P. Steduto, T. C. Hsiao, E. Fereres and D. Raes. Rome, Italy: Food and Agriculture Organization of the United Nations (2012), pp. 500, US\$100.00. ISBN 978-92-5-107274-5. The whole report can be downloaded from: <http://www.fao.org/docrep/016/i2800e/i2800e00.htm>.

The principal authors, and their collaborators, have brought together a vast amount of information and knowledge from diverse sources, which they have synthesised and condensed into this state of the art publication.

Basically, this book is about how to improve water productivity in agriculture, and the opportunities that exist for water saving, whether a crop is rain-fed or irrigated. As competition for water increases so does the need to justify its use in agriculture, not only in terms of productivity but also in financial terms. This book gives you the means by which this can be done, based on existing, but often incomplete, knowledge obtained from numerous field experiments conducted all over the world.

Modelling plays a key role in this process, which the first part of this book covers. It starts with a simple linear approach, but then concentrates on the development of the simulation model 'AquaCrop'. This is followed by a description of the agronomic features of 16 herbaceous crops for which the model has been calibrated and validated. The yield response to water of fruit trees and vines forms the second major part of this publication where, in addition to a general section, available data are synthesised to produce production functions and guidelines for 14 individual crops, mainly subtropical and temperate.

The disc enclosed with the book includes e-versions of FAO Irrigation and Drainage Papers numbers 33 (Yield response to water), 56 (Crop Evapotranspiration) and 66, as well as links to key websites.

No one should underestimate the amount of work involved in the production of this beautifully illustrated book, and what has been achieved. It will be a standard text for many years.

M. K. V. Carr

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Farming Systems Research into the 21st Century. The New Dynamic. Edited by I. Darnhofer, D. Gibbon and B. Dedieu. Dordrecht: Springer Science + Business Media (2012), pp. 490, £153.00. ISBN 978-94-007-4502-5.

The focus of the book is the evolution of Farming Systems Research (FSR) in Europe. The title with its staccato 'The New Dynamic' offers novelty and raises expectations perhaps not wholly realised.

The early FSR researchers in the developing world had a clear and limited goal: to improve the relevance of agricultural research to the circumstances of small farmers – just improve, not perfect! In an interesting exercise in chapter four, the authors conclude that: '...in the attempt to capture the wider context of (disciplinary) agricultural research, it seems that we might have overreached and "drowned out" the specificity of FSR' (p. 92). For some audiences, the aspirations for ever widening boundaries, together with the esoteric language of several contributions, will detract from the book's impact.

Nevertheless, the book is an important milestone in a long ongoing struggle to bring systems thinking and interdisciplinary action to bear on agricultural development. This has to be done through institutions charged with addressing agricultural development, most of which remain imbued with a traditional reductionist culture. Working with this culture is the key to FSR realising its potential and indeed generating a new dynamic. The book gives only limited attention to this priority.

The book deserves attention from agricultural development practitioners, particularly university faculties charged with training future graduates in this field. Its price tag probably limits it to the library market.

M. Collinson