

Kirkham, M.B. (ed.): **Water Use in Crop Production.** - Food Products Press, an imprint of The Haworth Press, New York - London - Oxford 1999. 385 pp. Hardcover USD 89.95, ISBN 1-56022-068-6, softcover USD 49.95, ISBN 1-56022-069-4.

All plants depend on adequate water for optimum growth and yield. The ever-increasing world population requires an ever-increasing supply of food and fiber. To meet this demand, agriculture must produce more with the same or less amount of water. This book is focused on method for determination how much water certain crops need in certain climates to ensure sufficient growth but eliminate water waste. Individual chapters are written by prominent scientists from every continent except Antarctica. They were simultaneously published in *Journal of Crop Production*, Volume 2, 1999.

The three introductory chapters are of general character. The first chapter give a global perspective for agricultural water conservation both under dryland and irrigated conditions. The second chapter examines possible changes in evapotranspiration and water-use efficiency induced by rising atmospheric CO<sub>2</sub>

concentration. The third chapter deals with the effects that water shortages on transpiration, growth rate, phenology, light interception and biomass partitioning.

The following chapters are focused either on special area (*e.g.* humid pampas of Argentina - chapter 4, San Joaquin Valley of California - chapters 7 and 8, sloping lands of Morocco - chapter 15, Auckland region of New Zealand - chapter 16), or on special crop (olive - chapter 5, citrus - chapter 6, cotton - chapter 9, rice - chapter 10, sorghum - chapters 11 and 12, sunflower - chapters 12 and 13, turfgrass - chapter 14).

The book is well edited and printed. The readable text of each chapter is accompanied with many useful tables, figures, and detailed list of references. This book might be a powerful tool to everybody interested in plant-water relationships, water conservation and water resource management.

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