

Ashraf, M.A., Harris, P.J.C. (ed.): **Abiotic Stresses. Plant Resistance through Breeding and Molecular Approaches.** - Food Products Press, an imprint of The Haworth Press, New York - London - Oxford 2005. 725 pp. Hardcover USD 129.95, ISBN 1-56022-964-0, softcover USD 89.95, ISBN 1-56022-965-9.

Abiotic stresses, such as drought, flooding, salinity, low or high temperatures, metal toxicity, mineral deficiency, adverse pH, or pollution, decrease considerably growth of plants and yield in many areas of the world. These stresses are partially amenable to physical improvements. However, plant breeding for stress resistance often seems to be more efficient and environmentally friendly approach.

This book is divided in two main sections: the first one contains general principles of crop improvement for growing in stress environments, and the second one is specialized to individual, most important crops.

The first 4 introductory chapters give common overview of 1) major abiotic stresses with emphasis to their simultaneous or sequential occurrence, 2) principles of breeding for stress resistance, 3) molecular biology approaches for crop improvement, and 4) genome mapping. The following chapters of the first part are focused on individual stresses. They are devoted to breeding or genetic engineering of plants with the aim to

obtain tolerance to salinity (5), drought (6), flooding (7), metal toxicity (8), low nutrient availability (9), high temperature (10), and cold (11).

The only way for modern agriculture to keep pace with population and alleviate world hunger is to develop efficient genotypes of main crops. Therefore, the chapters of the second part provide a detailed coverage of current and potential progress in breeding for abiotic stress tolerance in wheat (12), barley (13), rice (14), maize (15), oilseed crops (16), cotton (17), and tomato (18).

Each chapter offers comprehensive up-to-date information about the particular topic based on detail study of literature (*e.g.* chapter 12 contains list of more than 300 references). The readable text is accompanied with many useful tables. The only drawback of the book is repetition of some facts several times in different places.

The book can find a wide circle of readers both scientists and practitioners.

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