



Improvement of Crops in the Era of Climatic Changes [Volume 1 /

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Monografía

Current trends in population growth hint that global food production is unlikely to gratify future demands under predicted climate change scenarios unless the rates of crop improvement are accelerated. Crop production faces numerous challenges, due to changing environmental conditions and evolving needs for new plant-derived materials. These challenges come at a time when the plant sciences are witnessing remarkable progress in understanding fundamental processes of plant growth and development. Drought, heat, cold and salinity are among the major abiotic stresses that often cause a series of morphological, physiological, biochemical and molecular alterations which adversely affect plant growth, development and productivity, consequently posing a serious challenge for sustainable food production in large parts of the world, particularly in emerging countries. This emphasizes the urgency of finding better ways to translate new advances in plant science into concrete successes in agricultural production. To overcome the pessimistic influence of abiotic stresses and to maintain the food security in the face of these challenges, new, improved and tolerant crop varieties, contemporary breeding techniques, and cavernous understanding of the mechanisms that counteract detrimental climate changes are indubitably needed to sustain the requisite food supply. In this context, Improvement of Crops in the Era of Climatic Changes, Volume 1 provides a state-of-the-art guide to recent developments that aid in the understanding of plant responses to abiotic stresses and lead to new horizons vis-à-vis prime strategies for translating current research into applied solutions to create strong yields and overall crop improvement under such unfavourable environments. Written by a diverse group of internationally famed scholars, Improvement of Crops in the Era of Climatic Changes, Volume 1 is a brief yet all-inclusive resource that is immensely advantageous for researchers, students, environmentalists, soil scientists, professionals, and many others in the quest of advancement in this flourishing field of research

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