

# CONTENTS

<i>Contributors</i>	vi
<i>Preface</i>	viii
1 Introduction: some terminology and common mechanisms <i>H.G. Jones and M.B. Jones</i>	1
2 The impact of environmental stresses on ecosystems <i>F.I. Woodward</i>	11
3 Whole-plant responses to stress in natural and agricultural systems <i>J.P. Grime</i>	31
4 Photosynthesis and gas exchange <i>G.D. Farquhar, S.C. Wong, J.R. Evans and K.T. Hubick</i>	47
5 Regulation of growth and development of plants growing with a restricted supply of water <i>R.E. Sharp and W.J. Davies</i>	71
6 Stresses, membranes and cell walls <i>R.G. Wyn Jones and J. Pritchard</i>	95
7 Desiccation injury, anhydrobiosis and survival <i>G.R. Stewart</i>	115
8 Molecular biology: application to studies of stress tolerance <i>S.G. Hughes, J.A. Bryant and N. Smirnoff</i>	131
9 Environmental control of gene expression and stress proteins in plants <i>Tuan-Hua David Ho and M.M. Sachs</i>	157
10 Plant tissue and protoplast culture: applications to stress physiology and biochemistry <i>D.W. Rains</i>	181
11 Breeding methods for drought resistance <i>A. Blum</i>	197
12 Selection for physiological characters – examples from breeding for salt tolerance <i>A.R. Yeo and T.J. Flowers</i>	217
13 Prospects for improving crop production in stressful environments <i>R.B. Austin</i>	235
<i>Index</i>	249