

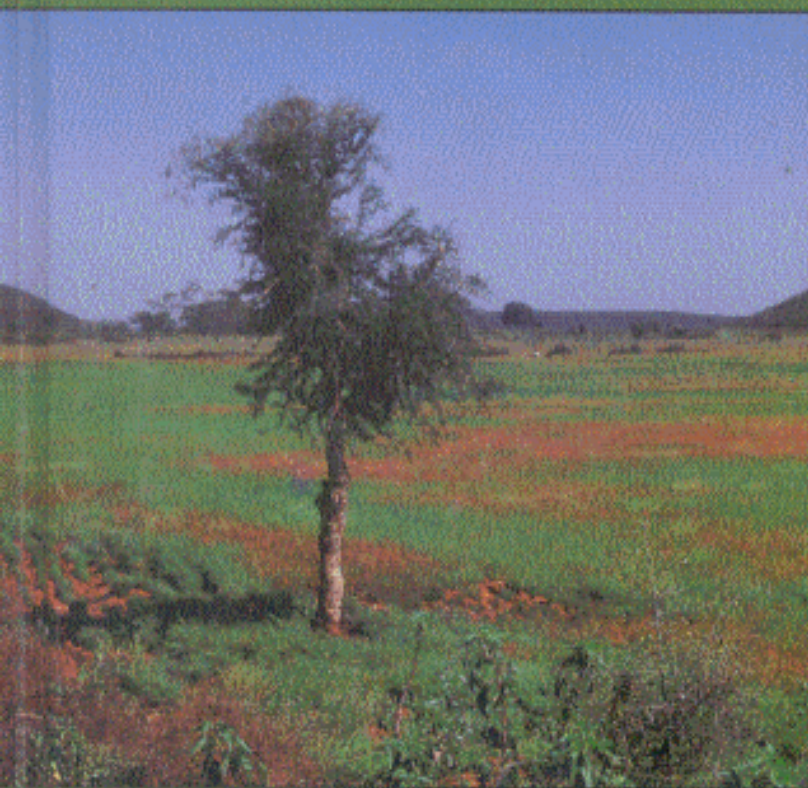


# Management of Agricultural Drought

Agronomic and Genetic Options

Editor

**N.P. SAXENA**



## Contents

<i>Foreword</i>	<i>v</i>
<i>William D. Dar</i>	
<i>Introduction</i>	<i>vii</i>
<i>C. Johansen, N.P. Saxena and M.C. Saxena</i>	
<b>1. Socioeconomic Consideration in Effective Implementation of Drought-Management Strategies</b>	<b>1</b>
<i>P.K. Joshi, T.G. Kelley, and R.P. Singh</i>	
<b>2. Research and Development Strategies to Counter Drought Impacts for Sustained Chickpea Production in the Tropics</b>	<b>19</b>
<i>S.M. Virmani</i>	
<b>3. Agronomic Management Strategies to Minimize Drought Effects in Grain Legumes</b>	<b>25</b>
<i>J.C. Katyal and K.P.R. Vittal</i>	
<b>4. Adaptation of Grain Legumes to Water-limited Environments: Selection for Physiological, Biochemical, and Yield Component Characteristics for Improved Drought Resistance</b>	<b>43</b>
<i>N.C. Turner, G.C. Wright and K.H.M. Siddique</i>	
<b>5. Prospects of Genetic Improvement of Grain Legumes for Drought Resistance</b>	<b>81</b>
<i>W. Erskine</i>	
<b>6. Drought Resistance: A Comparison of Two Research Frameworks</b>	<b>89</b>
<i>N.C. Turner</i>	
<b>7. Management of Drought in Chickpea: A Holistic Approach</b>	<b>103</b>
<i>N.P. Saxena</i>	
<b>8. Genetic Options for Drought Management in Groundnut</b>	<b>123</b>
<i>R.C. Nageswara Rao and S.N. Nigam</i>	

<b>9. An Overview of Prospects for Genetic Enhancement of Drought Resistance in Pigeonpea</b> <i>C. Johansen</i>	<b>143</b>
<b>10. Cool Season Grain Legumes in Dryland Mediterranean Environments of Western Australia: Significance of Early Flowering</b> <i>K.H.M. Siddique, S.P. Loss and B.D. Thomson</i>	<b>151</b>
<b>11. Physiological Responses of Cool-Season Grain Legumes to Drought in the Low Rainfall Mediterranean Environment of South-Western Australia</b> <i>L. Leport, N.C. Turner, R.J. French, B.D. Thomson and K.H.M. Siddique</i>	<b>163</b>
<b>12. Assimilate Partitioning in Chickpea (<i>Cicer arietinum</i> L.) in Drought-prone Environments</b> <i>P.K. Mohapatra, N.C. Turner and K.H.M. Siddique</i>	<b>173</b>
<b>13. An Overview of Progress in Management of Agricultural Drought with focus on Legume Crops</b> <i>N.P. Saxena</i>	<b>189</b>
<b>GGLDRN—List of Participants</b>	<b>203</b>
<b>Index</b>	<b>205</b>