

CONTENTS

| | |
|---|-----|
| List of Contributors | vi |
| Preface | vii |
| Prologue: Interactions in the physical environment of plant roots | ix |
| P.W. BARLOW | |
| The cellular organization of roots and its response to the physical environment | 1 |
| W.J. LUCAS | |
| Functional aspects of cells in root apices | 27 |
| MARGARET E. McCULLY | |
| Selected aspects of the structure and development of field-grown roots with special reference to maize | 53 |
| M.C. DREW | |
| Function of root tissues in nutrient and water transport | 71 |
| BETTY KLEPPER | |
| Origin, branching and distribution of root systems | 103 |
| H. LAMBERS | |
| Growth, respiration, exudation and symbiotic associations: the fate of carbon translocated to the roots | 125 |
| P.J. GREGORY | |
| Development and growth of root systems in plant communities | 147 |
| M.M. CALDWELL | |
| Competition between root systems in natural communities | 167 |
| P.J.C. KUIPER | |
| Response of roots to the physical environment: goals for future research | 187 |
| Index | 199 |
| Series list | 207 |