Nutrition is a major environmental factor in plant production, and is therefore of significant practical concern to ecologists and agriculturalists worldwide. In this book, the role of nutrition in regulating plant growth is explored. Case studies are used to illustrate the practical implications of the interaction between plant and environment for crop and resource management.

This book will be of interest to graduate students and researchers of agriculture, horticulture, forestry and ecology who are concerned with the complex ways in which plants interact with their environments.

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PLANT GROWTH: *interactions with nutrition and environment*

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PLANT GROWTH: *interactions with nutrition and environment*

Edited by

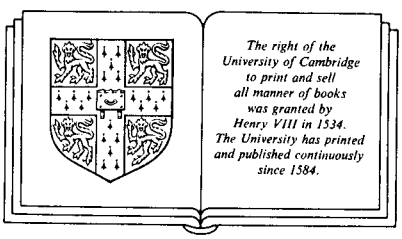
J.R. Porter

Research Fellow in Plant Physiology, University of Bristol

and

D.W. Lawlor

AFRC Institute of Arable Crops,
Rothamsted Experimental Station, Harpenden



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CONTRIBUTORS

FINK, S.
Institute of Biology, Eberhard-Karls University of Tuebingen, Auf der Morgenstelle 1, 7400 Tuebingen, Federal German Republic.
GRIME, J.P.
Unit of Comparative Plant Ecology (NERC), Dept. of Animal and Plant Sciences, The University, Sheffield S10 2TN, UK.
GROOT, J.J.R.
Institute for Soil Fertility, P.O. Box 30003, 9750 RA Haren, The Netherlands.
HUETTL, R.F.
Forestry Dept., Kali und Salz AG, P.O. Box 102029, 3500 Kassel, Federal German Republic.
LAWLOR, D.W.
AFRC Institute of Arable Crops Research, Rothamsted Experimental Station, Harpenden, Hertfordshire AL5 2JQ, UK.
LEIGH, R.A.
AFRC Institute of Arable Crops Research, Rothamsted Experimental Station, Harpenden, Hertfordshire AL5 2JQ, UK.
MARSCHNER, H.
Institute of Plant Nutrition, University of Hohenheim, P.O. Box 700562, 700 Stuttgart 70, Federal German Republic.
MARSHALL, B.
Scottish Crop Research Institute, Invergowrie, Dundee DD2 5DA, UK.
PORTER, J.R.
Dept. of Agricultural Sciences, University of Bristol, Long Ashton Research Station, Bristol BS18 9AF, UK.
RAO, I.M.
Dept. of Plant and Soil Biology, University of California, Berkeley, CA 94720, USA.

ROBINSON, D.
Scottish Crop Research Institute, Invergowrie, Dundee DD2 5DA, UK.
RORISON, I.H.
Unit of Comparative Plant Ecology (NERC), Dept. of Animal and Plant Sciences, The University, Sheffield S10 2TN, UK.
SPIERTZ, J.H.J.
Centre for Agrobiological Research, P.O Box 14, 6700 AA Wageningen, The Netherlands.
STEWART, G.R.
Dept. of Biology, University College London, Gower Street, London WC1E 6BT, UK.
STOREY, R.
CSIRO Division of Horticulture, Merbein, Victoria 3505, Australia.
TERRY, N.
Dept. of Plant and Soil Biology, University of California, Berkeley, CA 94720, USA.

PREFACE

I do not believe in things, I believe only in their relationships

Georges Braque, painter (1882–1963).

Interest in whole-plant physiology has ebbed in the last few years with the current intellectual tide of biology running with studies of processes at deeper, *circum*-molecular, levels of organisation. However, the Seminar Series, organised by the Environmental Physiology Group of the Society for Experimental Biology, has done much to illustrate that there are many exciting and relevant scientific problems at each level of biological organisation. It was with such an integrative approach in mind that the present volume of papers and the conference that preceded it were conceived. The conference was held during the April 1989 meeting of the Society for Experimental Biology at Edinburgh. All the invited speakers to the meeting have contributed chapters to this volume, some in collaboration with colleagues.

The fundamental question asked by the organisers was the extent to which we can understand the nature and scope of the tri-partite interaction between plant growth, nutrition and the aerial environment. Traditionally, whole-plant physiologists and ecologists have looked at the influence of above-ground conditions *or* nutrition on the growth and distribution of plants; it was our intention to replace '*or*' with '*and*' and to explore some of the complexity of the plant–nutrient–environment system.

In attempting this we have turned convention on its head by having papers on the conceptual models of processes not as epilogues but before those devoted to experimental analysis. We have also tried to be broad in including work from managed and natural eco-systems and processes with short-and-long response times.

We would like to record the organisers' thanks for financial and other support from the Society for Experimental Biology, the British Ecological Society, the Association of Applied Biologists and the Potash Development Association.

Finally, we thank the other members of the Organising Committee for their time in planning the meeting and help with the publication of this volume.

John Porter
Bristol

David Lawlor
Harpenden