

Seed Science Research

March 1992

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Seeds: The Ecology of Regeneration in Plant Communities

Edited by Michael Fenner, Department of Biology, University of Southampton, UK

This book provides a comprehensive overview of all aspects of seed ecology. This subject is of major concern to plant ecologists, as in higher plants, only through regeneration by seeds (as opposed to vegetative or clonal means) can natural selection have new genetic combinations on which to act. The emphasis of the book is on elucidating the process of regeneration in the field, but laboratory studies have been included where appropriate. The chapters follow in roughly chronological sequence from seed production on the parent plant through the dispersal, predation, dormancy and seed banks to germination and the establishment of seedlings in landscape. The book will be invaluable for senior students and research workers in seed science and plant ecology.

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- Maternal effects on seeds during development *Y Gutterman*
- The ecology of seed dispersal *M F Willson*
- Animals as seed dispersers *E W Stiles*
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Barley

Genetics, Biochemistry, Molecular Biology and Biotechnology

Edited by P R Shewry, Long Ashton Research Station, UK

The applications of molecular biology and molecular genetics have had a major impact on our understanding of the barley plant, and have opened the way to the application of biotechnology to manipulate and improve yield, quality and agronomic characters. This major book reviews our current knowledge of the genetics, biochemistry and molecular biology of barley and how biotechnology can be used to improve crop yields and their quality for feed or in the brewing industry. The book is divided into six main sections covering origin, evolution and wild relatives, basic genetics, analysis of metabolism and development, seed development, composition, germination and utilization, pathogen resistance, and biotechnology. It will therefore represent a major reference volume for research workers in cereal chemistry, agronomy and plant biotechnology, who are interested in either the barley crop or in barley as a model biological system.

- The wild species of *Hordeum* relationships and potential use for improvement of cultivated barley
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