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BOOK REVIEW

SEEMANN, J., CHIRKOV, Y. I., LOMAS, J., PRIMAULT, B.: *AGROMETEOROLOGY*. — Springer Verlag, Berlin—Heidelberg—New York 1979. 324 pp., cloth DM 98,—; US \$ 53.90.

This monograph is neither a textbook nor a handbook as the authors themselves state in the preface: In view of the fact that it is written as a series of separate accounts it has to be looked upon rather as an introduction to the present-day problems of agrometeorology. The book bridges the existing gaps in contemporary knowledge of interactions between the biological and climatic events by accumulating materials concerning interrelated plant and weather observations. About one half of the book is devoted to physical and meteorological principles of agrometeorology. In thirteen chapters the effect of the most important macroclimatic factors (e.g. solar radiation, heat, mass and momentum transfer) on plant cover are discussed and the corresponding measuring techniques are specified. The second half of the book (twenty-four chapters) deals with the applied agrometeorology both in the open field (soil climate, climate of meadows and pastures, grain crops, trees, orchards and forests), and in the greenhouse. Attention is also paid to water requirements of plants (the effects of drought, dry winds, dust storms and hails, irrigation, etc.). The authors do not content themselves with simple descriptions of exact observations but they also try to systematize information on plant-climate interactions in order to stimulate the more efficient use of climatic resources and thus increase productivity throughout the world. They also discuss the requirements on further development of measuring methods and the application of agrometeorological statistics and models. They estimate the usefulness of agroclimatology in planning and in crop distribution and weigh possibilities of improving climate for agricultural purposes, inclusive of agrometeorological forecast systems.

The book is well printed and arranged, supplied with numerous figures, tables and schemes and complemented with the subject index. It is only to be regretted that in the literature recent references are not often quoted. The interpretation of the problems was not intended to be exhaustive. The analysis is concentrated prevalently on the plant-macroclimate interactions so that the reader who will look up the topics on micrometeorology of different plant stands will meet with failure. Nevertheless, the book is of high theoretical and practical value for researchers in agronomy, ecology, agrometeorology, plant physiology, forestry, biogeography and related disciplines.

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