ANNUAL REVIEW OF PLANT PHYSIOLOGY, Vol. 7
Perpetuation of any series of Annual Reviews appears to be guaranteed with greater certainty with the appearance of each new volume. This continues to be true of the latest volume under the editorship of Lawrence R. Blinks of the Hopkins Marine Station at Pacific Grove, Calif. Of particular interest in this newest volume is the review by A. L. Kursanov on the present status of plant physiology in the USSR. In addition to his general summary, Dr. Kursanov lists the major research institutions in the USSR and point out that "...plant physiology in the Soviet Union possesses some distinct features of its own; in particular, perhaps more than in any other country, it is considered not only as the science concerned with the life of the plants, but also as the theoretical basis of agriculture. Physiological investigations in the USSR, therefore, are usually carried out on cultivated plants and are frequently connected with the solution of practical agricultural problems." Kursanov reviews Soviet work on photosynthesis, physiology of root nutrition, translocation of organic substances, respiration, enzymatic synthesis, resistance of plants to unfavorable conditions, physiology of dormancy, and the physiology of growth.
The current volume includes the following chapters: Mechanisms of Uptake and Transport by Emanuel Epstein, USDA, Beltsville; Energy Transformations in Photosynthesis, L. N. M. Duysens, University of Utrecht; Nitrogen Fixation by Photosynthetic Organisms, G. E. Fogg, University College, London; Endogenous Rhythms in Plants, E. Bünning, University of Tübingen; Physiology of Cell Division, H. Stern, Canada Dept. of Agriculture; Obligate Parasitism, C. E. Yarwood, University of California, Berkeley; Biological Relations of Plant Viruses, C. W. Bennett, USDA, Salinas, Calif.; Iron Chlorosis, J. C. Brown, USDA, Beltsville; Photoperiodism in Woody Plants, P. E. Wareing, Manchester University, England; Plant Proteins, C. E. Danielson, Findus Laboratory, Bijov, Sweden; Physiology of Root Elongation, J. G. Torrey, University of California, Berkeley; Mechanisms of Carbohydrate Breakdown, B. Axelrod and H. Beavers, Purdue University; Physiology of Seed Germination, E. H. Toole, S. B. Hendricks, A. H. Borthwick, and V. K. Toole, USDA, Beltsville; Phosphorus Metabolism and Photosynthesis, C. I. Arnon, University of California, Berkeley; Adsorption and Translocation of Plant Regulators, J. Van Overbeek, Shell Oil, Modesto, Calif.; Effects of Light Quality on Plant Growth, E. C. Wassink and J. A. J. Stolwijk, Wageningen, Holland.
The editors announce that S. B. Hendricks, USDA, Beltsville, succeeds W. M. Parker on the editorial committee under the yearly rotation rules.

WEATHER ANALYSIS AND FORECASTING
With Volume II, Dr. Petterssen has completed an excellent and comprehensive text on weather analysis and forecasting. In these two volumes, he has attempted to minimize the difference between synoptic and dynamic meteorology. Considerable new material has been added to this volume which was not in the first edition.
Volume II has only nine chapters. These cover the production and transformation of air masses, and condensation and precipitation with special emphasis on convective clouds, showers, fog, thunderstorms, and squall lines. In the last part of the book, the general principles of weather analysis are covered, and the various components brought together into weather systems. The use of regression techniques are discussed in chapter 27. Quantitative precipitation forecasting is covered in a chapter written by J. C. Thompson of the United States Weather Center. The chapter on application of synoptic climatology to weather prediction was written by Dr. Malone of the Travelers Weather Research Center. An interesting approach to forecasting is presented in which climatological data are analyzed for individual weather situations and by means of statistical techniques and high speed computers, forecasting techniques are developed.
This book is intended primarily for the student in meteorology or the professional meteorologist. However, certain parts of Volume II would provide interesting reading for those with an interest in meteorology, who but do not intend to pursue it as a profession. It is not intended to be an introductory text in meteorology.—R. H. Shaw

SOIL STERILIZATION
The author, as head of the Department of Physiology and Plant Culture at the John Innes Horticultural Institution in England, has had long experience with soil sterilization. This is the first book of its kind and covers the whole range of soil sterilization—for the amateur, how to sterilize by the pint; and for the professional, how to sterilize by the acre. The book covers both heat and chemical sterilization with heat sterilization being given the largest discussion. Apparatus, methods, and standard practices are covered. The author also discusses handling of sterilized soil for crop growth and a list of references is included. The book should be of interest for both commercial growers and amateur gardeners.