Book Reviews

W.G. Pollmer, R.M. Phipps (eds.): Improvement of Quality Traits of Maize for Grain and Silage Use. World crops: Production, utilization and description, Vol. 2. The Hague: M. Nijhoff for the Commission of the European Communities 1980. 505 pp. Hard bound Hfl 120,–.

The Commission of the European Communities organizes international and interdisciplinary seminars to examine if the practical application of recent research results from a specific crop could produce a rapid improvement in the protein status of the Community. This book contains the proceedings (research papers immediately followed by discussions and the final summaries) of the 1978 seminar concerned with protein improvement of maize for both grain and silage use. The participants included agronomists, plant breeders, plant physiologists, and animal nutritionists not only from within the Commission of European Communities but also from Switzerland, Canada, and the International Maize and Wheat Center (CIMMYT), Mexico. This diverse group of participants allowed for the inclusion of a wide range of topics which are critical to both animal and human nutrition in developing as well as developed countries. The introductory papers were devoted to the role of maize in developed and developing countries, especially in relation to changes in the amino acid composition that are now possible. This was followed by papers outlining the improvement of protein quality and quantity for grain and silage from the plant breeder's point of view. Reports from plant physiologists and animal nutritionists were then presented.

The book has a relatively narrow scope since it deals with the improvement of quality factors in a crop species grown outside its normal range of adaptation. Maize has not been extensively grown in that geographical area until quite recently when higher yielding, early-maturing hybrids have become available. Surprisingly, the results presented are quite extensive and indicate that sufficient research is available so rapid improvement is possible with a minimum increase in effort. The book contains a large amount of information and is recommended to students and research scientists in all phases of agriculture. In addition to reference use, a secondary function of this book should be as a model to indicate that a rapid improvement in some features of a specific crop grown in an area of limited adaptation can be promoted with an interdisciplinary meeting of minds to collate limited research in many diverse areas. This concept of interdisciplinary meetings in which research scientists pool their results and expertise to solve major problems should be extended to improvement of specific crops in developing areas.

P.L. Pfahler, Gainesville

B.K. Follett; D.E. Follett (eds.): Biological Clocks in Seasonal Reproductive Cycles. Proceedings of the thirty-second symposium of the Colston Research Society, held at University of Bristol March-April 1980. Bristol: Scientechnica 1981. 292 pp., 142 figs. Hard bound £ 25.–.

This symposium is remarkable in many respects. The papers given by twenty selected speakers are all devoted to photoperiodism and its relations to the circadian clock. Nevertheless, they cover a wide spectrum from photoreceptors and flowering hormones to circannual rhythms, endocrine hormone interactions and neural components of photoperiodic response in plants and animals. Many papers are of very high quality and together they give an excellent survey on the recent stand of the problem.

Most prominent is the introductory lecture given by Colin Pittendrigh with its brilliant synopsis, which seems to have set the standard for the following speakers. But not less exciting is the final 'annual Colston lecture' given by Jürgen Aschoff. He used this opportunity for a humorous but nevertheless highly instructive review on '300 years before and 20 years after' the Cold Spring Harbor Symposium on Biological Clocks.

The organisers of this meeting can be congratulated for their concentration on a closely outlined program, but even more perhaps for their careful selection of some 60 participants, including the speakers. They are especially fortunate that besides Pittendrigh and Aschoff, who gave the frame of the meeting, Erwin Bünning was also participating and enriched the scientific discussion.

This book is not only necessary for everyone particulary interested in biological timing and photoperiodism or in reproduction of plants and animals, it is in addition fun to read.

A. Betz, Bonn