

The gamete competition, evident from a simultaneous occurrence of two or more functioning megaspores, is described with some species of angiosperms (*e.g.* MAHESHWARI 1950, RUTISHAUSER 1969, *et al.*). According to our observations, in the case of *G. nivalis* the tendency to the development of two functioning megaspores is concerned. However, this competition is won, as a rule, by the chalazal megaspore, most likely thanks to its contact with the hypostase, through which nutrients come to the embryo sac from the termination of the vascular bundle in the funiculus.

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Figures at the end of the issue.

BOOK REVIEW

EVANS, L. T. (ed.): **Crop Physiology (Some Case Histories)**. — Cambridge University Press, Cambridge 1975. 374 pp., Figures and Tables. £ 8.00

The goal of this book is to examine the physiological basis of yield in nine crop plants: maize sugar cane, rice, wheat, soybean, pea, potato, sugar beet and cotton. These are the world's most important crops as they contribute more than two thirds of dry matter and half of the protein and fibre man uses. A chapter written by an outstanding specialist is devoted to each individual crop. Although the uniformity of treatment was not aimed at, each plant is treated within a comparable logical framework usually including topics such as vegetative growth, reproductive development, yield determining processes and modelling or growth analysis. This approach makes the book an enlightening reading even for non-specialists. An initial chapter surveys the contributions of crops to world food supply and the history of crop physiology. The final chapter (written similarly as the initial one by the editor himself) deals with the physiological basis of crop yield in general terms. The interest is focused on such aspects as limiting processes in yield determination (source, sink and the capacity to translocation), canopy structure, the partitioning of assimilates, ideotypes *etc.* L. T. Evans has proved once again to be a wise and competent guide through the most difficult fields of crop physiology. An index is provided.

The book under review is important not only as a source of information for crop physiologists, plant breeders and agronomists but deserves attention of students in some fields of basic research such as plant development or morphogenesis. Some of the crop plants dealt with (*e.g.* pea, soybean, maize) often served as important models for tacing general problems. The nine crop plants were selected as case histories but it is no exaggeration to claim that the survival of the growing world population will depend on further increase in the yield of these crops. The contribution of plant physiology to fulfil this task seems to be not negligible.

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