

Wien, H.C. (ed.): **Physiology of Vegetable Crops**. - CAB International, Wallingford 1997. 662 pp. GBP 85.00. ISBN 0-85199-146-7.

The more appropriate title of the book might have been "The physiology of growth and development of vegetables" as these areas represent its main focus. Some other aspects as, *e.g.*, nutrition, water regime, transport or stresses are mostly neglected. However, this reduction in the scope of physiological disciplines and the emphasis on those directly linked with yield parameters makes the book more concise and more relevant for horticulturists and plant breeders.

The volume is organized in two sections. The first one, comprising five chapters (1 - Seed storage, germination and quality, 2 - Transplanting, 3 - The induction of flowering, 4 - Environmental influences on development, growth and yield, 5 - Correlative growth in vegetables) deals with growth and developmental processes crucial for vegetable cultures. Also, it examines, often in detail, the physical factors which may influence them. The chapters on germination, transplanting and correlative growth cover at the level of whole-plant and organ physiology quite well the respective fields, whereas that on flowering induction and to lesser extent that on environmental influences aim at creating predictive models of growth and flowering pattern. This approach may be of great practical use for both horticulturists and breeders but the physiological principals of underlying processes are treated only scarcely or not at all and the outcoming view might be unbalanced. Some mathematical training is a prerequisite for reading them.

The second part discusses physiological aspects of vegetative growth, induction of reproductive structure, fruit set and fruit growth, maturation and senescence and disorders in major vegetable crops from temperate region. This set up of the chapter is mostly maintained with modifications reflecting the final harvest product of a given crop. The crops dealt with are: tomato, peppers, potato, cucumbers, celery, beans, peas, sweet corn, lettuce, cultivated forms of *Brassica oleracea* (cauliflower, broccoli, cabbage, Brussels sprouts). Again, the explanation is given rather at whole-plant and organ level than at cellular and molecular ones. The individual chapters are written by leading specialists and represent the well done and inspiring pieces of crop physiology. At the same time they testify about the usefulness of that branch of classical physiology which became nearly extinct due to invasion of molecular approaches. In some cases, as, *e.g.*, with potato and tuberization or in general chapter on organ correlations and transplantation, the authors provide fundamental information surpassing the horizons of crop physiology.

Each chapter is appended with rich and relevant bibliographical references and the volume is provided with subject index. However, the authors from the former Soviet bloc are cited only exceptionally despite their contributions to the respective area (*e.g.*, physiology of onion or root vegetables). This volume is a must for horticultural researcher and adviser, and for lecturers and advanced students at agricultural universities. However, it is also highly recommendable for the scientists in physiology of growth and development.

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