

Goto, E., Kurata, K., Hayashi, M., Sase, S. (ed.): **Plant Production in Closed Ecosystems.** - Kluwer Academic Publishers, Dordrecht - Boston - London 1997. ISBN 0-7923-4417-0. 343 pp. NLG 220.00, USD 141.00, GBP 86.00.

Closed and semi-closed systems are defined as any type of environment in which plants or plant parts are cultivated under artificially controlled conditions, in a restricted space, where free exchange of energy and mass between the interior and exterior of the system are restricted. Such systems are, *e.g.*, CELSS (Controlled Ecological Life Support Systems), space farming, greenhouses, plastic tunnels, factory-style plant production systems, nursery and transplant production systems, tissue culture vessels, and post-harvest systems. On this topics, an international symposium, held in Narita, Japan, August 26-29, 1996, was organized by the Commission for Horticultural Engineering of the International Society for Horticultural Science and the Japanese Society of Environment Control in Biology.

The reviewed book contains twenty invited lectures of 46 leading researchers from Belgium, France, Germany, Japan, the Netherlands, Russia, and USA. Generally, the papers deal with different aspects of agricultural industry, *e.g.*, greenhouse horticulture, hydroponics, micropropagation, food production in space, CELSS, resource conservation, *etc.* The first section (10 papers) is focused to recent advances in greenhouse technology, including growth and flowering control, features of plant nutrition, protection, and water relations, and *in vitro* cultures for micropropagation. The papers of the second section, 'CELSS and space agriculture', aim mainly to review possibilities of biomass production for food, oxygen supply, removal of carbon dioxide, and purification of water during space flights. The other contributions presented in oral and poster sessions will be published in a separate volume of *Acta Horticulturae*.

The book, supplemented by a subject index, is well edited and produced. It will surely find numerous readers among plant scientists and technicians.

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