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*Fig. 4–5 at the end of the issue.*

Atkin, R. K., Clifford, R. D. (ed.): Mechanism and Regulation of Transport Processes. Brit. Plant Growth Regul. Group, Monograph No. 18. – Parchments Ltd., Oxford 1989. 128 pp.

The latest booklet published by the British Plant Growth regulation Group is a record of the proceedings of a meeting organized jointly by this Group and the Physicochemical and Biophysical Panel of the Society of Chemical Industry's Pesticides Group in November 1988 in London. Most attention is paid to the role of plant hormones, especially of auxin in the regulation of transport processes, both the events at the membranes and the long-distance transport and source-sink relationship. (D. A. Morris: Auxin-promoted assimilate transport; T. Rausch: Effects of plant growth regulators on glucose transport; A. Parsons, D. Sanders: Cytokinin-stimulation of the plasmamembrane proton pump – its role in hormonal stimulus transduction). Mechanisms of phloem loading and unloading and phloem translocation of foliage-applied herbicides are also discussed. (D. A. Baker: Regulation of long-distance transport of assimilates; D. Coupland: Factors affecting the phloem translocation of foliage-applied herbicides).

One contribution (F. K. Bangerth, J. D. Gruber, S. Shehata: Auxin transport in relation to dominance and development of reproductive structures) is devoted to the importance of polar auxin transport in determining dominance of fruit and other reproductive sinks.

The last chapter (R. H. Bromilow, K. Chamberlain: Designing molecules for systemicity) deals with the criteria of systematic design of pesticides and growth regulators, taking into account especially their lipophilicity and acid strength, which are decisive for their phloem mobility.

The content of the booklet is a bit heterogeneous, but it brings reasonable information on some new aspects of the regulation of transport processes in plants.

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