

- TSERLING, V. V.: Mineral plant nutrition in development phases in relation to yield components. (4^e Coll. Int. sur le Contrôle de l'Aliment. des Plantes Cultiv.) — In: COTTENIE, A. (ed.) Comptes rendus Vol. I. Pp. 10—20, Rijksuniversiteit, Gent 1976.
- TSERLING, V. V.: Agrokhimicheskie Osnovy Diagnostiki Mineral'nogo Pitaniya Sel'skokhozyaistvennykh Kul'tur. [Agrochemical Basis of the Mineral Nutrition Diagnosis of Field Crops]. — Nauka, Moskva 1978.
- VIELEMEYER, H. P., VANSELOW, G.: Wirkung steigender K-Gaben auf K-Aufnahme, Ertrag und Rohproteingehalt von Braugerste. — Arch. Acker- Pflanzenbau, Bodenk. **24** : 167—174, 1980.
- WEBB, R. A.: Use of the Boundary Line in the Analysis of Biological Data. — J. hort. Sci. **47** : 309 to 319, 1972.

BOOK REVIEW

GOTTLIEB, O. R.: MICROMOLECULAR EVOLUTION, SYSTEMATICS AND ECOLOGY. An Essay into a Novel Botanical Discipline. — Springer Verlag, Berlin—Heidelberg—New York 1982. 170 pp., 80 figs. Soft cover DM 79.—, approx. US \$ 33.—.

This medium-size book is the first integrated monograph surveying the dispersed results of chemotaxonomical studies, *i.e.* the dependences between the occurrence of certain secondary metabolites, their biogenesis and the botanical systematics. It presents a number of new ideas and opens new views on the fundamental notions concerning the method and the application of this recently developed botanical discipline. The most interesting general notion following from this monograph is the idea that the structural variety of secondary metabolites is in agreement with the systematic and geographical continuum, which finds its expression in the structural variation of the metabolites of a given biogenetic group or in the homology of biogenetic pathways. The book is divided into 17 chapters. The first three chapters discuss the principles on which the general concept of the work is based:

1. Allelochemics as Systematic Markers, 2. Postulates of Micromolecular Evolution, 3. Is Integration of Allelochemics and Morphology Systematically Relevant? Subsequent chapters deal with the evolution of individual metabolic classes in corresponding systematic taxons. The chapters are usually subdivided into sections on the chemistry and the relationship between the chemistry and the systematics: 4. Evolution of Flavonoids in Embryobionta, 5. Evolution of Allelochemics in *Angiospermae*, 6. Evolution of Benzylisoquinolines in *Magnoliidae*, 7. Evolution of Iridoids in *Sympetaleae*, 8. Evolution of Polyacetylenes in *Sympetaleae*, 9. Evolution of Indole Alkaloids in *Apocynaceae*, 10. Evolution of Quinolones and Coumarins in *Rutaceae*, 11. Evolution of Xanthones in *Gentianaceae* and *Guttiferae*, 12. Chemosystematics of *Papilionoideae*, 13. Evolution of Quinolizidines in *Papilionoideae*, 14. Evolution of Flavonoids in *Tephrosieae*, 15. Evolution of Neolignans and Arylpyrones in *Aniba*, 16. Blue Flower Pigmentation and Evolutionary Advancement, 17. Is Integration of Allelochemics, Morphology and Ecogeography Systematically Relevant?

At the end the list of references, the chemical compound index, the plant name index and the subject index are attached.

Thus it may be stated that Professor Gottlieb has processed and organized this sophisticated subject in an excellent manner. One only could regret that the extensive results concerning the occurrence of sesquiterpenic lactones in *Asteriflorae* have not been included in the monograph. However, it is possible that this was omitted on purpose, because this particular subject has been treated extensively by F. C. Seeman in his article Sesquiterpenic Lactones as Taxonomic Characters in the *Asteraceae* in Bot. Rev. **48** (2) : 121—595 (1982).

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