

The need for the precise definition of some other technical terms that denote the amount of quality of structures and the delimitation of the boundaries covered by each such term is equally great. Thus the terms *gamo-* or *poly-* *sepalous* or *petalous* are used to convey different amounts of fusion and freedom of sepals and petals; and *granular*, *punctate*, *tuberculate*, *verrucose*, *papillate*, *mammillate*, *muricate*, *echinate*, *spinose*, *hispid*, *hirsute*, *pilose*, *tomentose*, and so on, are used to denote different degrees of granulation, sculpturing, or hairiness by different authors. Accordingly, the reader is often unable to grasp the exact meaning of these terms, and there is a lot of scope for personal judgments and errors.

It cannot be denied that a certain amount of plasticity in the usage and meaning of technical terms is often necessary in a descriptive science; but at the same time it is equally important to know precisely what amount of variation each one of our terms covers. However, many of the present divergences in our terminology are unintentional, or are based on differing old views that are no longer valid, or are due to the lack of an authoritative glossary. This naturally leads to confusion and very often lands both students and teachers in difficulty.

It seems that anomalies such as the ones enumerated here have been encountered by many other botanists and have led to the formation of a section of terminology in the forthcoming International Botanical Congress. A committee should be formed for drafting an international glossary at this Paris congress; it should go through the whole problem and also frame rules for the formulation of new terms. A list of synonyms could also be drawn by this committee. It may be mentioned that wood anatomists long ago took the lead and compiled international glossaries of their technical terms (14).

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Stable Colloidal Sulfur Solutions

In the course of an investigation on the microdetermination of mercaptans by their reduction of colloidal sulfur to hydrogen sulfide (1), the need arose for the preparation of a more stable and concentrated solution than is afforded by pouring a hot, saturated alcoholic solution of sulfur into water. It was found that any of the "Carbowaxes" (2), as well as propylene glycol, dissolve sulfur quite readily and produce stable colloidal solutions when poured into water. For example, a solution of sulfur may be prepared by dissolving 1.5 g of sulfur in 40 ml of Carbowax 200 at 110°C and adding it to 60 ml of cold water.

The colloidal solutions so prepared are free of electrolytes and hydrogen sulfide. The use of these solutions in determining microgram quantities of ethyl thioglycollate is being reported elsewhere (3).

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References and Notes

1. J. D. Guthrie and J. Allerton, *Contrib. Boyce Thompson Inst.* **12**, 103 (1941).
2. A series of polyethylene glycols of various molecular weights available from the Carbide and Carbon Chemicals Corp., New York.
3. M. W. Brenner et al., *Proc. Am. Soc. Brew. Chem.*, in press.

May 13, 1954.

Transplantability of Tumors

It has been reported by R. H. Foulkes [*Science* **119**, 124 (Jan. 22, 1954)] that benign tumors are incapable of further growth by transplantation. In an article on "The study of benign neoplasms of the rat's breast" [*Am. J. Cancer* **22**, 497 (1934)], I reported that six rats with spontaneous benign tumors yielded transplantable tumors from 4 to 53 generations. These tumors were under observation for some 15 yr at the Institute for Cancer Research, Columbia University. The variable morphology in different sex and age groups was described. The influence of hormones as growth stimulators or inhibitors was studied.

Other reports of experiments and results were as follows: *Am. J. Cancer* **27**, 450 (1936), **33**, 423 (1938), **39**, 172 (1940), **40**, 343 (1940); *Cancer Research* **2**, 25 (1942), **3**, 65 (1943); *Cancer* **2**, 329 (1949). The literature contains many other references on transplantability of benign mammary rat tumors: Willis, *Pathology of Tumors* (1948); Oberling et al., *Pathology; Year Book of Pathology and Immunology* (1941), and so on.

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My overlooking the early and thorough study of Heiman was indeed a regrettable error. Malignancy and transplantability of tumors are still considered by many as almost synonymous. Publication of my brief note as confirmatory of the studies of Heiman and