without listings for authors. Within the index, one finds several intriguing subject entries, such as "criminal poisoning," "malingering," "ear-piercing by plants," and "self-mutilation."

No such compilation can be truly comprehensive. Going through a work on the relevant plants of Florida (Perkins, K. D. and W. W. Payne, *Guide to the poisonous and irritant plants of Florida*. Univ. Florida, IFAS Circular 441. 1978), I found that ten of the more than 100 Florida plants of dermatological interest were not listed by Mitchell and Rook. These included such well-known genera as *Ligustrum*, *Polygonum*, and *Schinus*.

Disregarding minor shortcomings, however, this is clearly a very useful work. It is an excellent portal into the literature of phytodermatology in humans, and is a new basic reference for the medical botany shelf. No one with responsibilities for advice on plant poisoning will want to be without it, and it will surely stand for several years as the major source book in this area.—WILLARD W. PAYNE, New York Botanical Garden, Cary Arboretum, Millbrook, NY 12545.

Plant Cell and Tissue Culture Principles and Applications. W. R. Sharp, P. O. Larsen, E. F. Paddock and V. Raghavan, editors. xv, 892 pp. Ohio State University Press, Columbus, Ohio. \$37.50.

This book represents the contributions of international researchers to the 4th Annual Biosciences Colloquium of Ohio State University, and is a welcome addition to the literature on plant tissue culture. The opening poem on totipotency is an appropriate reminder of one of the major contributions of the plant tissue culture to biological concepts. The title of the book aptly describes most of its contents, wherein the subject coverage is remarkably extensive.

The book is divided into four parts: Part 1 (10 articles), the current global status of food and agriculture; part 2 (5 articles), physiology of growth and morphogenesis; part 3 (5 articles), genetics; and part 4 (17 articles), agricultural applications. This is followed by 36 abstracts of contributed papers and an exhaustive subject index. While space precludes the mention of other valuable chapters in this book, those dealing with world food economy, food and energy research, alcohol from plant products, and the improvement of individual crops like coffee, tobacco, cassava, legumes and cereals through *in vitro* research, particularly provide material for intensive as well as interesting reading. Tree tissue culture, too, is not ignored, since an excellent review on forest tree improvement is followed by an article each on tissue culture of Douglas fir and *Eucalyptus*. Geneticists will likewise find chapters dealing with variability through cell fusion, manipulation of nitrogen fixation, genetic modification and somatic hybridization particularly interesting. Those with tissue culture expertise, like those who are ready and eager to embark on such a course, would greatly benefit from this book because of the splendid up-to-date reviews of the very latest developments with emphasis on applied aspects.

In my candid opinion, it is an essential purchase for all libraries dealing with plant sciences and those individuals who need to have abundant information so readily available at a reasonable cost.—H. K. PALTA, New York Botanical Garden, Bronx, NY 10458.