

Economic and Medicinal Plant Research, Volume 1: edited by H. WAGNER, H. HIKINO and N. R. FARNSWORTH. Academic Press, London, 1985. 295 pp.

The recent opening up of the Chinese subcontinent, after a long period of isolation, to the Western World has had a number of salutary effects on Western science, not least the resurgence of interest in medicinal plants and their phytochemistry. This is due to the dominance of traditional preparations in the Chinese pharmacopoeia and the fact that a number of new 'cures' have been introduced from the East. This book, the first in a timely new series on economic and medicinal plants, is dominated by oriental plants and their uses.

Even the subject of the first chapter, the terpenoid glycoside stevioside, has an Eastern connection. Although the plant *Stevia rebaudiana* originates in Paraguay in South America, the first commercial application of the compound to the food industry took place in Japan during the 1970s. This first chapter by A. D. Kinghorn and D. D. Soejarto is a useful account of the isolation, characterization and properties of the *Stevia* constituents and of the application of stevioside as a sweetening agent.

It was from China that the first announcement appeared, in 1978, that orally administered gossypol, a toxic yellow pigment of cotton seed, produced reversible infertility in Man. After testing it in 4000 men, it was claimed to be 99.98% effective as a male contraceptive agent. This account by Norman Farnsworth and his colleagues in Chicago outlines the research efforts carried out since 1978 to verify this remarkable claim and to explain the lack of toxic side-effects. By all accounts, gossypol would

appear to be the most promising development in population control of the last decade. This article was written before the inactive (+)- and active (-)- forms of gossypol had been separated and undoubtedly a further chapter in the gossypol saga is in the process of emerging.

Another Chinese remedy which has swept its way into Western medicine, in spite of many reservations, is ginseng. This is, of course, the preparation from the Asian plant *Panax ginseng* which has been employed since Ancient times in the Far East as a general panacea and to promote longevity. In this volume, there are two chapters on ginseng, one on the chemistry and pharmacology of *Panax* by Shibata and his coworkers from Tokyo and the other on Siberian ginseng (*Eleutherococcus*) by N. Farnsworth and colleagues. The activity of these various araleaceous plants is said to be 'adaptogenic'. Farnsworth, at least, makes a good case out for accepting the view that ginseng is of value to Man, but that further pharmacological experiments are needed before we can explain its mechanism of action in the human system.

The last two chapters deal with research on eight other oriental plants, including licorice and ginger, by H. Hikino and on immunostimulatory drugs by H. Wagner and A. Proksch. Overall, this volume is one which will be of interest to pharmacists and to natural product scientists generally. Indeed, the editors, having covered so many topical areas of medicinal plant research here, will have their work cut out to produce an equally stimulating second volume.

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