



## **BOOK REVIEWS**

Wine, Nutritional and Therapeutic Benefits, edited by Tom R. WATKINS, ACS Symposium Series 661, American Chemical Soc., Washington DC, 1997. 284 pp. ISBN 0-8412-3497-3.

Do we really need a book to tell us that drinking wine is beneficial to health? I suppose we do, since everyone recognises that over indulgence leads to cirrhosis of the liver. Any scientific evidence that a moderate intake of 'fruit of the vine' is good for us is obviously valuable. Ever since Renaud in 1992 observed that residents of Southern France have a much lower incidence of cardiovascular disease than their age-matched Irish counterparts, polyphenolic and medical biochemists have been searching for the factor(s) in wine which provide protection from a heart attack. The so-called '~ French Paradox' depends on the fact that the alcohol intake of the French sample is roughly twice that of the Irish.

Well, it is all here in this Symposium proceedings. In the opening chapters, the phenolic chemistry of wine has been rapidly re-examined in many laboratories, and the importance of stilbenes, catechins and proanthocyanidins exhaustively assessed. The second half of the book then considers the possible health

benefits of the various components of wine, including the alcohol content. Evidence presented by a series of experts from US laboratories has shown that wine provides many antioxidant constituents. Results are presented demonstrating that the body will use these reducing substances in wine for protection against cardiovascular and other risk factors. The case in favour of wine drinking therefore seems to be unanimous. In fact, I missed any dissenting voice and wonder whether all scientists in Europe are as positively enthusiastic as these mainly American contributors.

There is a great deal of interest to phytochemists in these pages and it is particularly welcome to have such a comprehensive account of the phenolics of wine and their beneficial properties so soon after the original observations of epidemiologists in 1992. It is even possible to check on page 53 the resveratrol and quercetin levels of your favourite red tipple. If you are worried about the extent of your wine drinking, here is the reassurance you have been seeking! At least in reasonable moderation, there seems little doubt now that wine may lead to a glad and healthy heart.

School of Plant Science, University of Reading

JEFFREY B. HARBORNE

Chemical Constituents of the Bryophytes by Y. Asa-KAWA, Volume 65 in the series "Progress in the Chemistry of Organic Natural Products", Springer-Verlag, Vienna, 1995. 618 pp. ISBN 3-211-82576-2.

This excellent review largely updates a chapter on liverwort constituents written by the same author in 1982 for volume 42 in this Natural Products series. It has been considerably extended now to include the chemistry of the mosses and hornworts as well as that of the Hepaticae. We have therefore for the first time a complete and up-to-date account of the chemical constituents of the entire bryophyte kingdom of lower plants (with some 25,000 known species). Needless to say, only a small fraction of this biological diversity has been explored chemically. Nevertheless, we have in this book an enormous wealth of chemical struc-

tures from terpenoids and bibenzyls to lipids and biflavonoids. There are over twenty tables and no less than 651 references to the original literature are included.

Particularly important for phytochemical readers are the sections on biologically active substances among the bryophytes and on chemosystematics which conclude this valuable compendium. The whole work is a veritable 'tour-de-force'. We must congratulate the author for his indefatigable energy in collecting all this disparate data in a highly meaningful account of this area of phytochemistry. And we should not forget that the author and his co-workers have contributed so much to the primary literature on bryophyte constituents.

School of Plant Science, University of Reading

JEFFREY B. HARBORNE