

Reviews of Environmental Contamination & Toxicology Vols 117, 118, 119, 120 Edited by G.W. Ware. Springer-Verlag, Berlin, Heidelberg, New York, London Paris, Tokyo, Hong Kong, Barcelona, 1991, approx 160 pp. each DM 98 per volume

This clutch of 150 to 180-page volumes share 1991 as their year of publication. They also share the same foreword and the same preface. Individual volumes consist of up to four submitted articles which are peer-reviewed before acceptance for publication. The first 97 volumes in the series appeared under the name *Residue Reviews* between 1962 and 1986.

My first thought when I contemplated the table of contents of Volume 117 was 'Do I really want to spend time reading 50 pages about *environmental lead* in Mexico?' My conclusion after reading the chapter is that the meal consisted of good plain food and was served well, but I was not hungry for it. The list of sources of environmental lead in Mexico is the same as that anywhere else, but regulations relating to the use of lead and the exposure of workers to it lag behind those already existing in more developed countries. More to my taste was a review on *ciguatoxins* of bacterial or algal origin which

accumulate in some varieties of fish and shellfish in tropical and subtropical regions. These toxins are heat-resistant and give rise to gastrointestinal, cardiovascular and neurological symptoms, including severe pruritis and hot/cold reversal sensation. The most probable source of the toxins are benthic micro-organisms, such as *Gambierdiscus toxicus*.

In Volume 118, M.A. Saleh provides a wide ranging review of the chemistry, biochemistry and toxicity of *toxaphene*, a broad spectrum pesticide consisting of a complex mixture of polychlorinated monoterpenes. Residues have, according to the author, accumulated in the environment despite earlier claims that it is readily biodegradable. The toxicity of toxaphene for man, laboratory rodents, fish and birds is discussed. Surprisingly the author does not find space assessment of toxaphene for carcinogenicity. Instead he makes his own rather superficial judgement on this issue. The remainder of this volume is taken up by an account of pesticide residues found in crops in California during 1989.

In the first 46 pages of volume 119, FN Dost discusses the acute toxicology of components of vegetation smokes with special reference to occupational health risks associated with stubble-burning and fighting forest fires. Not surprisingly, formaldehyde and acrolein come out as the most serious acute toxicants. Next, it is speculated, come free-radical precursors with half-lives of the order of tens of minutes formed during the pyrolysis of cellulosic materials. Ozone is a secondary product of forest fires. A 100-page review on the value of small mammals as monitors of environmental contamination by heavy metals, radionuclides and organic chemicals at mine sites, industrial areas, waste disposal sites and on ordinary agricultural and forested land completes this volume.

Volume 120 starts with a mainly retrospective review by FW Kutz *et al.* of organochlorine pesticides in human adipose tissue. Whereas Saleh in volume 118 sought to alert the world to the dangers of toxaphene, Kutz *et al.* stress that toxaphene is rapidly eliminated from mammalian tissues and certainly does not accumulate in body fat. According to JR Wessel & NJ Yess, non-US food producers who export food into the USA generally use pesticides in a manner consistent with EPA requirements. Finally, DJH Phillips draws attention to the paucity of reliable information on the levels of trace elements in tropical marine ecosystems and prophesies that, unless funding for research is improved, irreparable damage to coastal resources in tropical zones is probable.

Each of the four volumes is separately indexed

and, in addition, volume 120 has a cumulative subject-matter index covering volumes 111-120.

This series is well-produced and well-edited. The content and to some extent the quality of individual chapters appears to be set more by the authors than by the editors. Perhaps this is unavoidable given the wide range of subject matter. So my only real complaint is that the volumes are too thin all four volumes could have rolled into one with advantage.

Reference

- ¹IARC. *Toxaphene*. International Agency for Research on Cancer. Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans 1979 20: 327-48.