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BOOK REVIEW

PLIMMER, J. R. (ed.): PESTICIDE RESIDUES AND EXPOSURE. — American Chemical Society, Washington, D.C. 1982, 213 pp.

Few aspects of agriculture have advanced so rapidly or generated so much controversy as has the use of chemicals for crop protection. The aim of this book, based on a symposium held in Las Vegas, Nevada in 1980, was to review our knowledge on the metabolism and degradation of various pesticides, as concerns both their practical use in eliminating destructive pests and evaluation of their toxic effect on the environment. The introductory paper of this 15-chapter volume reviews the factors affecting the extent of hazard associated with the pesticide use and with the problem of reentry intervals. The essential part of the book considers current problems of measuring and monitoring occupational exposure of persons that may be exposed to pesticide by reason of their employment or involvement in agriculture. Methodology for estimating the dietary intake of pesticide residues, biophysiologic analyses of residues in human tissues and methods for monitoring pesticide safety programs by measuring blood and urine for pesticides and their metabolites are discussed. Several chapters cover exposure of workers to individual groups of pesticides - to carbaryl, chlorbenzilate, 2,4-D, 2,4,5-T etc. As stressed in most chapters, the nature and longevity of pesticide residues and the extent of the environmental damage depends on climatic factors (temperature, moisture, sunlight, rainfall), on the rate of application and on the pesticide formulation. All these variables complicate the development of safety guidelines. A special chapter is devoted to protective clothing.

This book, appearing in the ACS Symposium Series as Vol. 182, provides the reader with the results of current research of various aspects of pesticide residue and exposure, and will be of interest to agricultural toxicologists.

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