

Book review — Boekresensie

Toxic plants and other natural toxicants

Edited by T Garland and A C Barr

1998. CAB International, Wallingford, United Kingdom, 585 pp. Hardcover. Price £75.00 (US\$140.00). ISBN 0 85199 263 3.

This book comprises edited papers from the Fifth International Symposium on Poisonous Plants, held in Texas in May 1997. It is high-quality, essential reading for toxicologists concerned with animal and human health, food industry regulators and plant scientists.

Toxic plants and other natural toxicants have a variety of roles in the fields of animal and human health, veterinary and medical research and the production of safe food and also represent an economic problem in terms of animal health and crop production. The economic impact on livestock has been estimated to be millions of dollars in countries such as Australia, the United States and South Africa.

This book brings together applied and fundamental research from botanists, chemists, biochemists, agricultural scientists, veterinarians and physicians and advice from regulatory bodies. All aspects of poisonous plants, mycotoxins and herbal intoxications are covered. Their adverse effects are described, such as fatalities, reduced or

failed reproduction, foetotoxicity, spontaneous abortions, deformities, reduced productivity and organ-specific toxicity. Methods of detection, isolation and identification of the chemical compounds responsible are included. The biochemistry of the plant-associated toxins and elucidation of their mechanisms of action are investigated, including protocols for management or eradication, immunisation programmes, behaviour modification, withholding periods for metabolic detoxification, perspectives on human usage of natural products and suggestions concerning toxin residues in agricultural produce. The development of non-toxic strains of plants for use as fodder is also discussed.

The 112 chapters in this volume have been fully edited to conform to consistency of style. It is recommended for researchers in the general field of plant toxicology and chemistry.

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