

B O O K R E V I E W

Food fertilizer and agricultural residues, Proceedings of the 1977 Cornell Agricultural Waste Management Conference. Edited by Raymond C. Loehr, Ann Arbor Science Publishers, Inc., Ann Arbor, Michigan, 1977, VIII+726 pp, 47 papers, Index.

The 1977 Waste Management Conference, "Food, fertilizer and agricultural residues", was sponsored by the New York State College of Agriculture and Life Sciences, a Statutory College of the State University at Cornell University, Ithaca, New York. The Conference was cosponsored by the American Society of Agronomy and the American Society of Agricultural Engineering. This Conference was the ninth in the annual series of conferences sponsored by the College of Agriculture and Life Sciences on various waste management topics.

The papers presented explore ways to utilize the nutrient and energy resources in municipal and agricultural residues, decrease the losses of fertilizer nutrients and avoid environmental problems caused by residues of food production. Major topics include municipal sludge management and utilization, land application of wastewaters, methane production from agricultural wastes, animal waste management alternatives, fertilizer application rates and timing, economic and regulatory aspects and use of agricultural residues as energy sources. Laboratory, pilot plant and full-scale studies are documented.

The book comprises of 7 sections:

- I. Opening remarks and keynote address.
- II. Application of wastewaters to land.
- III. Interactions of sludge, soil and crop production.
- IV. Nutrient management.
- V. Methane generation.
- VI. Energy utilization and production.
- VII. Animal waste management.

The integrated examination of waste management and resource utilization of residues and wastes presented in this volume will be valuable to a wide range of professional groups. Agricultural scientists and engineers will appreciate the discussion of agricultural waste management and energy production related to agriculture. Consulting civil and sanitary engineers will find valuable information on methods and effects of land waste disposal. An up-to-date examination of government regulations relating to resource recovery and land application of wastes are especially interesting to state and governmental agency officials in the United States.

The European reader will find the book interesting as the research and applied engineering presented encompass the most difficult problems such as the anaerobic digestion of animal wastes for methane production, other energy generation methods from agricultural residues, aerobic fermentation and aerobic digestion of animal wastes and nutrients balance in waste treatment — land disposal systems and fertilizer values of untreated manures. In summary, the book is an excellent reference for researching and solving the mounting problems of animal waste management.

Jan A. Oleszkiewicz