the USSR a growing concern over the exploitation of the natural resources at about the same time as in the USA. It is interesting to note that conservation is coming to mean the same and is championed by the people in both countries. The conflict in the USSR, as in the USA, is between the developer of natural resources and the people. For example, the author lists the industrial activities developed along the shores that are contaminating the waters of the unique Lake Baykal. Two new pulp mills and increasing logging operations are part of the government's plan for expanding the industrial economy. Here one finds the conflict of resource conservation between the people and the government. One learns that even under the Russian system of centralized economic planning and the absence of parliamentary formalities, the passing and enforcing of conservation legislation is difficult.

The book is lucidly written, the material is well organized, and the coverage is so complete that everyone connected with conservation and the environment will want to have a copy handy. —LINDO J. BARTELLI, USDA, SRTSC, Fort Worth, Texas.

Soil Absorption of Septic Tank Effluent

This publication, subtitled "A Field Study of Some Major Soils in Wisconsin", deals with soil disposal of domestic liquid wastes. It is a report on a study of disposal of septic tank effluent in 12 major types of soil. Twenty soil disposal systems were evaluated over a period of more than 2 years. The authors discuss the performance of the various systems and the effects on the environment. The research is being continued as an interdisciplinary project funded by the State of Wisconsin, the Upper Great Lakes Regional Commission, and the Geological and Natural History Survey of University Extension.

The eight chapters include: an introduction of soil disposal systems, physical and morphological aspects of infiltration and movement of liquid through soil materials, methods, genetics and characteristics of soil pedons selected for study, the results of field and laboratory studies, an evaluation of physical measurements, bacteriological purification of septic tank effluent by soil percolation, and soil disposal systems for problem soils. More than 80 figures, 16 photographs, and 49 tables aid in the presentation of the material. Seventy-seven references document this extensive study which was funded in part by the Wisconsin Department of Natural Resources.

Soil Absorption of Septic Tank Effluent will be of interest to soil scientists, sanitary engineers, microbiologists, and ecologists. —JMH

Liquid Fertilizers

This book is based on U.S. patents on manufacture and application of liquid fertilizers issued between 1960 and 1972. It attempts to excerpt technical information and examples from these patents without including the repetitious jargon which is usually included in patents for legal reasons. A few particularly relevant earlier patents are also covered as well as a few foreign patents.

The book serves as a reference to patent literature for the liquid fertilizer industry. More liquid fertilizer patents have probably been issued in the past 12 years than in any other 12-year period in history. Since the pace of issuance of these patents seems to be slowing down, the book should be useful now and for a considerable time in the future. The book will probably be more useful to researchers than to any other segment of the liquid fertilizer industry.

The book is divided into sections covering seven different subjects with two sections on processes for production of clear solutions from wet-process phosphoric acid. Patents described in the first of these sections are grouped according to the organizations to which they are assigned. Assignees of these patents are Phillips Petroleum Company, Tennessee Valley Authority, Allied Chemical Company, Union Oil Company, Standard Oil Company, Swift and Company, United States Steel Company, and W. R. Grace and Company. The patents generally pertain to processes and equipment for production of ammonium and potassium polyphosphates. Several solubility diagrams and other sources of information are included which should be useful to most segments of the liquid fertilizer industry. The other section on production of solutions from wet-process phosphoric acid covers a wide variety of miscellaneous subjects such as removal of magnesium from liquid fertilizers, use of urea as a condensing agent for polyphosphate formation, removal of carbonaceous impurities.

One section of the book covers chelating agents for clear fertilizer solutions and another describes processes for production of slurry fertilizers from wet-process phosphoric acid. Many of the latter patents pertain to various suspending agents; others pertain to operating techniques. A section is included on incorporation of micro and secondary nutrients and another on specialty fertilizers such as those used in hydroponics and foliar feeding. The last two sections are on corrosion inhibition and on equipment for manufacture and application of fluid fertilizers.

The reproductive quality of the type and figures is excellent. The patents are adequately indexed according to company, inventor, and patent number. In general, the patents were excerpted in such a manner as to obtain their "meat" and to make them relatively easy to understand. However, some of the excerpts are rather difficult to understand possibly because it was difficult for the author to find an understandable part of the patent to excerpt. Since current patents contain abstracts, a future edition of the book could be improved by inclusion of these abstracts which usually are brief and to the point and relatively easy to understand.

There is always a need for help in searching and studying the patent literature, and this book should be a welcome addition to many libraries for this purpose. —J. M. POTTI, Chemical Research Supervisor, Tennessee Valley Authority, Muscle Shoals, Ala.

Terms on Environment Related to Agriculture


This bulletin contains a listing of terms taken primarily from FAO and UN documents on the environment. An attempt has been made to limit the selection of terms to those related to agriculture.

There are 1001 terms listed in alphabetical English order with the French and Spanish equivalents. Each term in the English, French, and Spanish indexes refers back to a numbered English main entry. A bibliography is also included.

The introductory note states that this bulletin was hoped to be of use to participants at the United Nations Conference on the Human Environment which was held in Stockholm in June 1972. This bulletin should be particularly helpful to translators and interpreters in environment-related fields. —JMH

Directory of Conservation/Environmental Organizations


This book, compiled by the Environmental Affairs Department of Northern States Power Company, is a listing of the conservation and environmental groups active in Minnesota, North Dakota, and South Dakota. It is divided into two sections. The table of contents lists page numbers on which details of each group may be found. The second section lists each group alphabetically and includes addresses, telephone numbers, speakers bureau contacts and descriptions of the interests and activities of each group. The publishers anticipate revising and updating the list in 1973.

Included with the directory is an Ecological Reminder Calendar. Suggestions for environmental action are given on particular days of the month and supplementary information is included on separate pages. Each month is designated a specific subject area, such as September—environmental education, October—environmental legislation. The calendar is designed for persons of all age levels from lower grade levels to high school students and adults.

Both the directory and the calendar are printed on recycled paper. —JMH