the compilation was to gather information on the less commonly used materials, no effort was made to cover the literature on widely used insecticides and fungicides, such as nicotine, lead arsenate, sulfur and a number of others". With these qualifications, the catalogue should be a valuable guide to various research workers and for manufacturing chemists by showing whether or not a given chemical compound has been tested for fungicidal or insecticidal properties and at the same time indicating where such investigations have been published. The patent lists should be of use to those interested.

The author devised a new system of classification and coding for chemical compounds. In order to determine whether a particular compound has been subjected to biological testing, it is necessary to code the same and locate it under the code number of the catalogue. There is a complete alphabetical index of all compounds tested at the end of Vol. II. It should be stressed that one should use the correct chemical name in attempting to locate the compound. Dr. Frear is to be commended for publishing the information which he assembled. The press work is excellent.—F. Z. HARTZELL.

CHEMISTRY AND USES OF INSECTICIDES


In the title of this book the author uses the word "insecticides" to include also ascaricides, rodenticides, herbicides, and wood preservatives. Thus, to most readers, the term is too restrictive, which may cause the book to be overlooked by those interested in controlling fungus diseases and pests other than insects unless attention is drawn to the definition of "insecticides" as used by the author. In this handy volume is packed a wealth of information, in concise form, which should be useful to research workers, students of agriculture, pest control operators, manufacturers, and laymen. The Dictionary of Insecticides (in appendixes) lists less than 700 compounds and plant derivatives and the test mentions probably not more than 1,000 of these materials. Although the work is not exhaustive in this respect, it does cover all the products which are or have been used or tested to a considerable extent up to the time the text was written, including also many which have theoretical interest, as, for example, certain kinds of arsenate of lead. The chemical and physical discussion is abridged but the formula for each compound, where known, is given together with considerable information on solubility, compatibility with other materials, methods of manufacture, physical properties, toxicology, etc. Of the 88 tables presented, 32 are devoted to chemical and physical properties and 21 tables summarize information on toxicology. In addition there are 14 tables of weights and measures and 16 tables giving data on source, exports, and imports of important raw materials used in making insecticides, fungicides, and other economic poisons.

Much of the book is given to discussion of the use of compounds and mixtures for the control of pests and effects on plants, including dosage and dust dilution tables. The cross section of the literature used throughout the book has been carefully selected and is cited at the end of each chapter. The text is well written and in general the press work is good but there is an excess of words with missing letters.

It seems, to the reviewer, that not enough attention has been given to hazards to the operator in the case of many materials. Since the book will be used by many who are unfamiliar with some of the dangerous substances, it would seem that a separate chapter on such hazards would help to impress the reader of the necessity for extreme care to be exercised with such compounds. Another criticism is that, in the case of most of the newer insecticides, no tolerance has been established for the amount of spray residue that may be present on fruits and vegetables when sold. This is an acute problem at the present time in all parts of the United States and users should realize that produce with even very slight residue of a poison, for which no legal tolerance has been established, may be subject to seizure and confiscation by state and government inspectors.

Chapter headings are Introduction, Arsenic and Its Compounds, Copper and Its Compounds, Sulfur and Its Compounds, Miscellaneous Inorganic Compounds, Mineral and Other Oils, Fumigants and Fumigation, Plant Derivatives, Synthetic Compounds, Heat, Cold and Radiation as Insecticides, Appendixes, Author Index, and Subject Index. The appendixes include Dictionary of Insecticides, Glossary, Legal Requirements covering the Manufacture of Insecticides, Official Antidotes, ASTM Standards, Conversion Tables and Equivalents, Volume and Linear Tables, Miscellaneous Data, and List of United States Patents.—F. Z. HARTZELL.