Book Reviews

MANUAL ON FERTILIZER MANUFACTURE


According to the author, "this handbook was prepared for the man in the fertilizer works not too well trained in chemistry but who is interested in one way or another in the preparation of good commercial fertilizers that will best satisfy the farmer."

A brief introductory chapter covering some of the fundamentals of soil science and plant nutrition is followed by a short discussion of the properties of mixed fertilizers. Then the author gives comprehensive coverage of various nitrogenous materials, ammoniation of superphosphates, and the factors affecting reversion of ammoniated superphosphates.

A good discussion of phosphatic materials and the chemistry of superphosphate manufacture is climaxed by a rather detailed description of the equipment used by the Davison Company at Curtis Bay, Md.

Following short chapters on potassic materials and the secondary or minor elements is an excellent section on compounding fertilizers. Subjects covered include types of fertilizer plants, water relationships, curing and hardening of mixed fertilizers, hygroscopicity of fertilizer materials, compounding, ammoniating, and dry mixing to grade, conditioners and fillers, bag rot, and acidity and basicity of fertilizers.

A discussion of computations used in the formulation of mixed fertilizers and an outline of fire and explosive hazards is followed by a section containing miscellaneous information pertaining to fertilizer manufacture.

The 58 tables and 31 figures and illustrations which are included in the book contain a mass of data pertaining to fertilizer materials, usage, and manufacture. In spite of several errors, this is an excellent handbook for those men in the fertilizer industry for whom it was written, and in addition is a desirable and valuable reference for workers in the fields of soils and fertilizers.—M. T. Vittum.

PRACTICAL EMULSIONS


This book deals with the practical art of making emulsions and using them in industry. Part I begins with a very good treatment of emulsion stability, formulation, methods, and equipment. This is followed by comprehensive lists of emulsifying agents, dispersing and wetting agents, and (what is much more difficult to find) a list of demulsifying and defoaming agents. A symposium of 13 papers on emulsifying agents and emulsions in industry makes up Part II. Part III, comprising the greater half of the book, gives examples of