

New Books . . .

Advances in Agronomy, Vol. VIII

Edited by A. G. NORMAN. xi + 423 pages. Academic Press, Inc., 125 East 23rd St., New York 10, N. Y. 1956, \$8.80. Reviewed by M. S. ANDERSON, Agricultural Research Service, USDA, Beltsville, Md.

THE OVER-ALL OBJECTIVE of this series of books is to survey and review progress in agronomic research and practice. No specific subject-matter boundaries are recognized, but the material presented should be useful to agronomists. Nine chapters, each by a different author, are included.

"Molybdenum as a Fertilizer" is written by A. J. Anderson of Australia. Most of the items in the long list of references appended are from that country and from New Zealand, where molybdenum is frequently deficient in soils and plants. A single application of two ounces of molybdenum trioxide per acre has been found to be effective for a considerable number of years.

Anhydrous ammonia is discussed by its enthusiastic sponsor, W. B. Andrews. Of particular value are the extensive data on crop increases due to ammonia applications to soils. The locations of synthetic nitrogen plants should be of wide interest to readers.

The old subject of soil testing is brought up to date with discussions of chemical methods, field correlations, and statistical treatment of data. Soil tests, along with cropping history, past fertilization practices, and observations on growing plants, give information that helps greatly in formulating fertilizer and liming programs.

Organic soils are discussed from the standpoint of their classification, rates of formation, rates of subsidence, and various physical and chemical properties.

The chapters dealing more especially with crops include such subject matter as:

The evaluation of winter hardiness. Breeding of grass crops.

Mineral nutrition of corn.

Root systems of corn formed under different conditions are described. Important features of the corn discussion include:

Varied factors involved in nutrient absorption and translocation of minerals.

Effects of fertilizers.

Nutritional disorders.

Agronomists should welcome this eighth book of the series. It maintains the high standard established by earlier volumes.

LITERATURE AVAILABLE

Automatic Gross Weigher. Gross bagger that weighs and bags adhesive and nonadhesive materials in 25- to 100-lb. bags described and illustrated in new six-page, two-color bulletin. Illustrations include photographs of scale and components, schematics showing different feed arrangements, and dimensional drawing of the scale. Bull. No. 0356, Dept. A&F, RICHARDSON SCALE CO., Van Houten Ave., Clifton, N. J.

Chlorine Dioxide Bleaching. Illustrated, 12-page booklet describes methods of purifying tallow and other inedible fats, protecting them against deterioration, chlorine dioxide bleaching by dry gas and wet methods, and procedure and apparatus for determining effectiveness of chlorine dioxide as a bleach. Dept. A&F, INDUSTRIAL CHEMICALS DIVISION, OLIN MATHIESON CORP., Baltimore, Md.

Chromatographic Equipment. Chromatographic equipment featured in 16-page bulletin, which also describes other laboratory apparatus. Dept. A&F, SCHAAR & CO., 754 W. Lexington St., Chicago 7, Ill.

Coumarin. Solubility tables for coumarin contained in folder. Specifications and tables list its solubility in alcohol-water, glycerin-water, and propylene-glycol-water mixtures. Dept. A&F, ORGANIC CHEMICALS DIVISION, MONSANTO CHEMICAL CO., 800 N. 12th Blvd., St. Louis 1, Mo.

DMH. Bibliography on dimethylhydantoin gives references on physical properties and chemical reactions for this new commercial product. References cover reactions with mineral acids, alkalis, acetic anhydride, methylating agents, chlorine, formaldehyde, and noble metal salts. Dept. A&F, GLYCO PRODUCTS CO., INC., Empire State Bldg., New York 1, N. Y.

Feeding of Liquids and Slurries. Continuous volumetric feeding of liquids and slurries described in four-page bulletin. Feeder is designed around a rotary dipper wheel. Its accurate operation, versatility, and

adaptability to automation outlined. Dept. A&F, OMEGA MACHINE CO., 345 Harris Ave., Providence 1, R. I.

Insecticide and Herbicide Solvents. Technical aspects of solvents for herbicides and insecticides presented in 16-page bulletin. Some specific properties covered are chemical compatibility with herbicides and insecticides (synthetic and botanical); solvency for insect toxicants and such herbicides as 2,4-D and the 2,4,5-T esters; and stability of solutions of insect toxicants and herbicides. Request Bull. 214, Dept. A&F, VELVICOL CHEMICAL CORP., 330 East Grand Ave., Chicago 11, Ill.

Odor Control. Leaflet describes development of Alamask chemicals and methods of application to eliminate objectionable odors from animal laboratories. Dept. A&F, Engineering Section, RHODIA, INC., 60 E. 56th St., New York 22, N. Y.

Oscillating Conveyor. Recent addition to company's oscillating conveyor line for bulk materials handling, especially engineered for applications in the intermediate ranges. Book 2644, Dept. A&F, LINK-BELT CO., Dept. PR, Prudential Plaza, Chicago 1, Ill.

Paper Electrophoresis Apparatus. Catalog of paper electrophoresis apparatus and accessory instruments features a migration chamber, power supply of research grade, and a power distribution unit. Dept. A&F, RESEARCH SPECIALTIES CO., 2005 Hopkins St., Berkeley 7, Calif.

Sugar for Industry. A 52-page brochure analyzes present trend toward higher quality foods, and evaluates liquid sugars in terms of how they may help food processors upgrade quality to keep pace with market demands. Dept. A&F, REFINED SUGARS & SYRUPS, INC., Yonkers, N. Y.

Safety Chart. Instructions for safe unloading and handling of sulfuric acid presented on new 17 x 22-in. wall chart, printed in moisture-resistant paper. It describes proper methods for pump-unloading and air-unloading of tank cars, and also includes instructions for preparation of tank cars for return trip to manufacturer. Available from Dept. A&F, Industrial Chemicals Division, OLIN MATHIESON CHEMICAL CORP., Baltimore 3, Md.