

New Products and Equipment...

Pyrethrin Synergist Gives High Knockdown

Experimental quantities of its new pyrethrin synergist, Sesoxane (AG AND FOOD, December 1956, page 981), are available from Shulton, Inc.'s fine chemicals division. The chemical is now being turned out in pilot plant quantities and will soon be produced in large scale quantities.

Sesoxane, the tradename for 2-(2-ethoxyethoxy) ethyl 3,4-methylenedioxyphenyl acetal of acetaldehyde, is said to cost less to use than other available synergists in all formulations for equal knockdown and kill. Itself a solvent, Sesoxane is also readily soluble in kerosene, Freons 11 and 12, and other solvents. It is reported to have a low acute oral toxicity. (The LD₅₀ for rats is 2000 mg. per kg.) Its odor is faint and pleasant.

Sesoxane's high synergism is due to the presence of the 3,4-methylenedioxyphenoxy group in its molecule, in contrast with most presently used synergists, which contain 3,4-methylenedioxyphenyl groups. Sesoxane was synthesized by Morton Beroza—and first reported by him in AG AND FOOD (January 1956, page 49)—as part of the research program on synergism conducted by USDA.

Further information is available from Dept. A&F, Fine Chemicals Division, Shulton, Inc., 45 Rockefeller Plaza, New York 20, N. Y.

Sorbitol

Merck announces it will produce a 70% aqueous solution of sorbitol for use as a humectant or moisture conditioner. Other forms of the product are to be manufactured also. Further information can be obtained from Dept. A&F, Merck & Co., Inc., Rahway, N. J.

Corrosion Inhibitor for Liquid Fertilizer Equipment

Nalco 889, a chemical inhibitor, is reported to cut corrosion rates 94% or more by forming a tough, corrosion-resistant protective film on the ferrous metal surfaces of liquid fertilizers equipment.

Low dosages of the inhibitor, varying from 100 to 500 p.p.m., are said to be sufficient to inhibit corrosion in product lines, storage tanks, transportation equipment, and spraying apparatus. Application by the manufacturer is said to protect his equipment



Morton Beroza of USDA, whose research led to production of Sesoxane

as well as the equipment of distributors and farmers who subsequently store and handle the fertilizer solution.

Feeding and proportioning of Nalco 889 is accomplished through a Nalco ball feeder connected to a product line. By-passing some of the fertilizer solution through the feeder dissolves the Nalco 889 briquettes and carries inhibitor back into the product line. Mixing or agitation is not required when these feeders are used. The inhibitor can also be fed through chemical proportioners by preparing a solution of Nalco 889 with water or with the liquid fertilizer itself.

Technical data are available from Dept. A&F, National Aluminate Corp., 6296 West 66th Place, Chicago 38, Ill.

Nitrogen-15

Isomet Corp. announces it is manufacturing nitrogen-15 isotope enriched to over 95%. Also available from Isomet are the following compounds labeled with nitrogen-15: nitric acid, ammonium nitrate (either nitrate- or ammonium-labeled or both), potassium nitrate, ammonium chloride, and potassium phthalimide.

More information is available from Dept. A&F, Isomet Corp., P. O. Box 34, Palisades Park, N. J.

Phosphorus Pentasulfide

Availability of two grades of phosphorus pentasulfide, used in making thiophosphate insecticides, is announced by Monsanto. With regular grade phosphorus pentasulfide, heat is usually necessary to start its reaction with an alcohol. With the more reactive grade now offered, external heat is usually not necessary. More information can be obtained from

Dept. A&F, Monsanto Chemical Co., St. Louis 4, Mo.

Carbon-14-Labeled Pesticides

Tracerlab has announced the availability of new carbon-14-labeled compounds listed below. Many of these are being made available for the first time from a commercial radioisotope laboratory. The compounds will be available on short notice.

Barium Carbonate-C-14
t-Butyl Alcohol-C-14
Ethyl Acetate-2-C-14
2,4-Dichlorophenoxyacetic Acid-2-C-14
Malonic Acid-2-C-14
Salicylic Acid-Carboxyl-C-14
Oleic Acid-1-C-14
Fumaric Acid
Sodium Octanoate-1-C-14
3-Indole Acetic Acid- α -C-14
Sodium *n*-Butyrate-1-C-14
Phenylacetic Acid Carboxyl-C-14
p-Propyltoluene
n-Pentane-3-C-14
3-Amino-1,2,4-Triazole-5-C-14
Silicone Oil Methyl-C-14

For further information, contact Dept. A&F, Tracerlab, Inc., 130 High Street, Boston 10, Mass.

Lignin Sulfonate

Orzan P, a new member of a group of surface-active, lignin sulfonate chemicals for industry, is being marketed by Crown Zellerbach Corp.

Orzan P is said to precipitate readily from solutions and to cling to fibers or other materials present. Recommended uses are: an emulsifier, an emulsion stabilizer, a flocculant, and a dispersant.

The Orzans are derived from the chemically significant non-cellulose portion of the tree, the spent liquor resulting from the manufacture of paper by the sulfite process.

Agricultural researchers at Oregon State College, Washington State College, and the University of California, as well as in industry, have investigated Orzan's effect on soils and plants. A number of potential applications have resulted. It is known that Orzan may be used to improve soil structure, improve water penetration, add organic matter to the soil, supply additional nutrients, improve growth of certain crops, and minimize wind erosion.

A 24-page technical brochure gives specifications and general physical and chemical data. For this brochure and samples, write to: Dept. A&F, Crown Zellerbach Corp., Chemical Products Division, Camas 4, Wash.