

New Products and Equipment . . .

Insecticide Emulsifiers

Emulsol Chemical has developed a pair of low cost, high quality emulsifiers, Emcols H-900 and H-902, for insecticide formulations.

Emcols H-900 and H-902 may be used separately or in combination for a number of insecticides, among them aldrin, BHC, chlordan, DDT, dieldrin, endrin, heptachlor, lindane, parathion, methyl parathion, and toxaphene.

Write Dept. A&F, Emulsol Chemical Corp., 75 East Wacker Drive, Chicago 1, Ill., for details.

Nozzle Converts Spray Gun Into Broadcast Sprayer

Spraying Systems announces a new spray nozzle tip that will project a spray in a flat spray pattern up to 42 ft. for use with its Gunjet No. 2 or No. 42 spray guns. In use, the spray gun is rigidly mounted on the rear of the tractor about 3 ft. above ground level and pointing to the rear. In this position, the spray gun will do an effective job of broadcast spraying of grains and grasses, and related types of operations. This new spray nozzle tip is identified as the DDOC tip, and is made with four orifices to provide equalized distribution of the spray throughout the pattern area.

For complete information write for Data Sheet 7320 to Dept. A&F, Spraying Systems Co., 3252 Randolph St., Bellwood, Ill.

Portable Bagging Scale

A versatile high-speed fertilizer bagging scale (Model E-50) is now available in floor portable style, Richardson Scale Co. announces. Mounted on a heavy-duty frame set on casters, the new unit is easily moved to serve many bins on one floor.

A new feature is an eye-level counter for tallying the number of bags filled. It is also fitted with a quickly-detachable and changeable bag spout to accommodate 25-lb., 50-lb., or 100-lb. bags.

For further information write to Dept. A&F, Richardson Scale Co., Van Houten Ave., Clifton, N. J.

Liquids Plant

A skid-mounted, batch-type plant for making complete analysis, liquid mixed fertilizers has been introduced by Barnard & Leas.

The complete Autobatch skid plant consists of a B & L Autobatch control

unit for producing neutral solutions, a scale-mounted B & L Liquefizer for adding solids, automatic solids handling system with cycle control and central routing panel (completely wired and prepiped internally), all mounted on a heavy duty welded I-beam skid frame. It is designed as a complete package for ready installation by connecting to raw material supply, and electrical connection. A minimum of auxiliary equipment is required for the operation.

The plant combines the accuracy of volumetric metering with the simplicity of the beam scale to provide automatic measuring of raw materials. The B & L Autobatch control unit meters the phosphoric acid, aqua ammonia and/or other suitable nitrogen solutions, and water in preselected amounts, and delivers a neutral solution to the B & L Liquefizer. At the same time, the automatic solids handling system delivers potash in predetermined amount. Herbicides, insecticides, and trace elements can be added to the formulation.

Further information is available by writing Dept. A&F, Barnard & Leas Mfg. Co. Inc., 1200 Twelfth St. S. W., Cedar Rapids, Iowa.

Fertilizer in Capsules?

Putting fertilizer in small round capsules coated with calcium alginate is suggested by Pathus-Labour, owner of the patented process. Says the company's U. S. representative, the Council on Public Relations, Inc., "fertilizer could be encapsulated in soluble alginate and distributed at the time of seeding. Rain would release the fertilizer when the seedlings come up, that is, when it will do the most good."

Further information on the process is available from Dept. A&F, Council on Public Relations, Inc., 366 Madison Ave., New York 12, N. Y.

Safflower Oil

A. E. Staley Mfg. Co. announces it has added pharmaceutical grade safflower oil to its line of corn and soybean oils. Principal uses of Staley's safflower oil will be in the pharmaceutical and health foods industries.

Safflower oil has attracted increasingly wide interest in recent years as a highly concentrated source of unsaturated essential fatty acids in nutrition. It has the highest content of unsaturated fatty acids of any commercially available vegetable oil, averaging 70% linoleic acid. Recently

published medical and nutritional research reports indicate beneficial effects of linoleic acid in lowering blood cholesterol levels and, in turn, possible reduction in individual tendencies toward atherosclerosis.

A clear, pale yellow, bland liquid, Staley's safflower oil is refined specifically for pharmaceutical and medicinal preparations and for use in dietary foods. It may be used as a salad or mayonnaise oil, in baking, in specialty dietary foods, and in other food products.

Further data are available from Dept. A&F, A. E. Staley Mfg. Co., Decatur, Ill.

Enzyme for Separating DL-Amino Acids

Acylase I, an enzyme obtained from hog kidneys and said to be capable of separating many synthetic DL-amino acids more economically than possible by chemical means, is available in developmental quantities from the research division of Armour.

Acylase I deacylates acyl-L-amino acids without affecting the corresponding acyl-D-amino acid. The liberated L-amino acid can then be separated from the unreacted D-amino acid derivative by solvent extraction or ion exchange.

A bulletin giving operating procedures, literature references, assay methods, and cost calculations may be obtained by contacting Dept. A&F, Armour & Co., Research Division, Union Stock Yards, Chicago 9, Ill.

Alkyl Boric Acids

Three new alkyl boric acids with bacteriostatic and fungistatic properties are available in research quantities from Callery Chemical.

Chloropropylidihydroxyborane [$\text{Cl-C}_3\text{H}_6\text{B}(\text{OH})_2$] is a white crystalline material. Dihydroxynonylborane [$\text{C}_9\text{H}_{19}\text{B}(\text{OH})_2$] and dihydroxydodecylborane [$\text{C}_{12}\text{H}_{25}\text{B}(\text{OH})_2$] are colorless liquids.

As bacteriostats the two liquid materials inhibited growth of *Staphylococcus aureus*, *Salmonella typhosa*, and *Bacillus subtilis* in two different tests. Dihydroxynonylborane and the diethanolamine ester of dihydroxydodecylborane are also active against fungi, *Aspergillus niger* and *Penicillium* species, paper-disc tests indicate.

Additional information is available in Technical Bulletin No. 710, from Dept. A&F, Callery Chemical Co., Pittsburgh, Pa.