New Products and Equipment...

Ready-made Fertilizer Batch Mixer

A dry fertilizer batch mixer that can be quickly and easily set up as a complete fertilizer plant to deliver seven tons per hour is announced by Andrews Machine Co. The machine is built of heavy gage steel and all welded construction. Two 7.5 hp. motors drive the vertical screw and mixer, engineered for continuous work load using heavy duty bearings and large diameter shafts. Hammers in the bottom of the hopper break up lumps.

The ingredients are weighed and dumped into the hopper. The vertical screw elevates the material and discharges it into the mixer. After mixing, the screw elevates the finished goods to the spout, where it is discharged into truck, bag, or bin. A two-way control on the spout allows for discharge either into the mixer, truck, or other receptacle.

Controlling Fertilizer Distribution

Coordinating over-the-ground speed of farm equipment with the flow of anhydrous ammonia to assure a uniform distribution of the fertilizer can be handled with a farm speedometer available from Stewart-Warner Corp. Installed either on the tractor or rig, the speedometer registers the actual speed and the operator can adjust the speed of travel or the flow rate of the ammonia to secure the desired degree of concentration. The instrument is also recommended for spraying, seeding, and harvesting.

Soil Sampler for True Profiles

The Elano Corp. announces a soil sampler with several features that are said to permit accurate soil samples with undistorted cores. These include a probe cup with a heat treated cutting tip that resists blunting, bending, or twisting. This cup is machine drawn from the main tube in such a manner that it cuts a soil core slightly smaller than the tube itself, permitting the core to rise in the tube without breaking. Open-side construction makes possible on-the-spot soil analysis at various depths without removing the core from the tool.

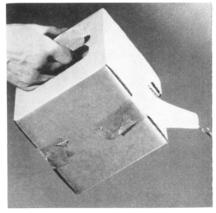
U-F Solution

Allied Chemical & Dye has developed a urea-formaldehyde solution which it claims will enable fertilizer manufacturers to produce granular-type fertilizers containing long-lasting organic nitrogen for lawns, gardens, and speciality crops. The solution, called N-dure, produces complete fertilizers in which the nitrogen is released over an entire growing season, and makes additional fertilizer later in the season, usually unneces-

sary. Another advantage of this slow release is fertilizer mixtures that are nonburning and leach-resistant. By use of N-dure, it is claimed, manufacturers can make chemically blended, granular mixtures that are dust-free and practically odorless, and granulation can be achieved without special equipment, only standard ammoniation apparatus being needed. N-dure, contains 12% nitrogen, and, it is felt, will allow manufacturers to make mixtures containing a wide variety of ratios between water soluble and insoluble nitrogen.

Polyethylene Cube-Type Container

Liquids can be shipped, distributed, and stored at lower cost in a polyethylene cube type container claimed by Hedwin Corp. to be useful for one-way shipment in the food and



chemical industry. It consists of a semirigid, cube-shaped polyethylene insert in an outer corrugated paper-board carton. The user can open die-cut flaps to form a handle and expose the spout, and after using, fold the spout back into the carton for storage.

Zip-Top Bag Opener

Arkell & Smiths has a multiwall bag-opening device known as Zip-Top available. The new feature, available at no cost increase, extends the bag opening to full width with one sharp pull of the tab, facilitating pouring.

PE7

Tape for Bag Packing

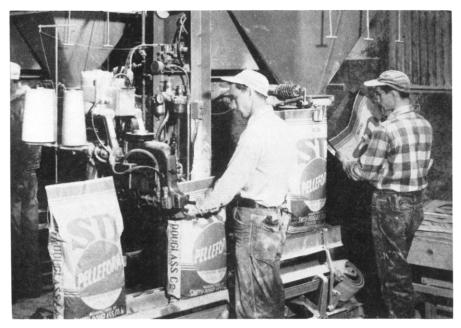
Filtovent tape for packing aerated materials into multiwall valve bags is announced by St. Regis Paper Co. The tape was designed to overcome production difficulties caused by the

Animal Feeds Delivery in Bulk

The Bulkfeed wagon, developed by Henry Simon Ltd., for bulk transport of animal feed, empties pneumatically into storage on an English dairy farm. The four-hopper truck can carry six tons of bulk material. Beneath the hoppers are side platforms that are used to carry the discharge pipes or bagged material

PE4





Installation of Bemis fertilizer packers at Smith-Douglass' plant in Streator, III.

escape of air from a multiwall bag when aerated materials were being packed into it. The tape, placed on one or both ends of the bag, is perforated, and allows air to escape between the stitch lines and through pinhole perforations. It is claimed that the tape reduces blow-back of material during packing, and permits more accurate weights, less bag breakage, better stacking qualities, and a reduction in bag sizes.

Coating for Multiwall Bags

Lustergrip, announced by St. Regis Paper Co. is a nonskid coating that provides improved printing, less ink rub, and a cleaner and better looking package. The coating also decreases slippage and makes palletizing easier. Printing is done prior to applying Lustergrip.

Nonirritating Cotton Defoliant Dust

Shed-A-Leaf D, a cotton defoliant for dust application has been announced by Chipman Chemical as available in cotton states east of and including Texas. A white dust, applied by either airplane or ground dusters, it is claimed to be nonirritating to people using it, and noncorrosive to equipment.

Chemical Intermediate from Fermentation

A versatile chemical intermediate produced by fermentation and useful in preparing insecticides, dyestuffs, drugs, and other complex organic chemicals is now available in pilot plant quantities, according to Chas. Pfizer.

The new product is a white, viscous liquid known as DMADA. Soluble in methanol, chloroform, benzene, and ethyl acetate, it is insoluble in water and hexane. DMADA is relatively stable and is claimed not to need refrigeration during storage.

The product, which is the dimethyl ester of acetonedicarboxylic acid has a boiling range of 95° to 99° C. at 2 mm. hg.

Fertilizer Packer

A fertilizer packer claimed to hold to weight tolerance of 4 oz. on 50 to 100 lb. units is available from Bemis Bro. Bag Co. The equipment forms a complete packaging unit, with a production rate of 16 to 28 bags per minute, and will handle 50, 80, and 100 lb. paper bags, and 100 and 200 lb. textile bags.

A three bucket scale design is incorporated, and scales are available for fertilizers having either free-flowing or sluggish characteristics. As an optional feature, Bemis offers an injector for insecticide treatment at time of packing. This mechanism avoids the toxic dangers encountered when application of insecticides is made during mixing, as well as giving close quantity control, the manufacturers claim.

Photos Identify Air Pollutants

Stanford Research Institute is making available a four-volume index containing 200 color transparencies of 10 common U. S. weeds that react to various kinds of air pollutants. These weeds have been established as standards for areas of suspected damage by pollutants.

The photos were collected during a three year study which evaluated various fumigants' effects on the 10 weeds as a guide to identify the source of plant life damage. The collection will cost about \$2400.



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