

New Products and Equipment . . .

Borden Introduces Urea-Formaldehyde Fertilizer

A "slow release" nitrogen fertilizer compound, designed to last turfgrasses and ornamentals for an entire growing season with a single application, has been developed by the chemical division of Borden Co. The compound represents Borden's entry into the chemical fertilizer field.

Based on a 38-0-0 formula, Borden's 38 is nonburning and will release nitrogen steadily for periods ranging from six months to a year.

Fifteen to 18 pounds of Borden's 38 will provide nitrogen for a full season to a 1000-sq.-ft. area of turfgrass, the company states.

Borden's 38 is produced in the form of small white pellets, and is said to be odorless, easy to apply, and non-toxic to soil. **PE1**

Continuous-Flow Paper Electrophoresis

Greater flexibility and efficiency are claimed for the continuous-flow paper electrophoresis apparatus introduced by the Spinco Division of Beckman Instruments, Inc. New methods of electrolyte feed and wide-range controls permit the instrument to give maximum throughput under any required degree of resolution. At the same time, design efficiency has been raised so that resolutions formerly requiring as much as 1500-v. operation are made at a third of this value.

Applicable to the separation of such charged substances as proteins, polypeptides, amino acids, and other biological materials, the unit also handles such organic substances as dyes and intermediates. In some cases non-polar substances such as carbohydrates can be separated. The apparatus is also particularly useful for following organic reactions and for immuno-chemical work.

Chief departures from previous practice include large-volume vertical wicks between the curtain and electrode vessels to provide optimal distribution of the electrical field and at the same time prevent migration into the paper curtain of electrode products. Controls permit precise adjustment of feed point and positioning and orientation of the pattern. A specially designed automatic fraction collector is available.

The following features are claimed for the apparatus: it is easily as-

sembled and disassembled for cleaning; paper curtains are quickly removable for oven drying; a range of types and thicknesses of curtains can be used; stability of operation permits unattended runs of indefinite duration; large samples can be processed at throughputs up to 8 ml. per hour; small samples can also be processed with virtually no hold-up; a specially-designed pump circulates buffer—or recirculates where desired—permitting location of reservoirs below the apparatus. **PE2**

Sintered Filter

A sintered filter introduced by Purolator Products, Inc., is said to be capable of handling fluids ranging up to 1000° F. The filter can take flow rates comparable to any high temperature filter in existence with lower differential pressure and a better degree of filtration, according to Purolator engineers.

Made of sintered metal, it can remove particles as small as one micron from a wide range of fluids, including

nitric acid, hydrochloric acid, sulfuric acid, phosphoric acid, and strong alkalies.

The one-piece sintered element can be made in a variety of diameters and lengths and its radial fin construction can be supplied in specified depths and numbers of convolutions to give extended area within a confined space. Varying flow rates are also available. Filters of stainless steel, monel, and other metals can be made as required.

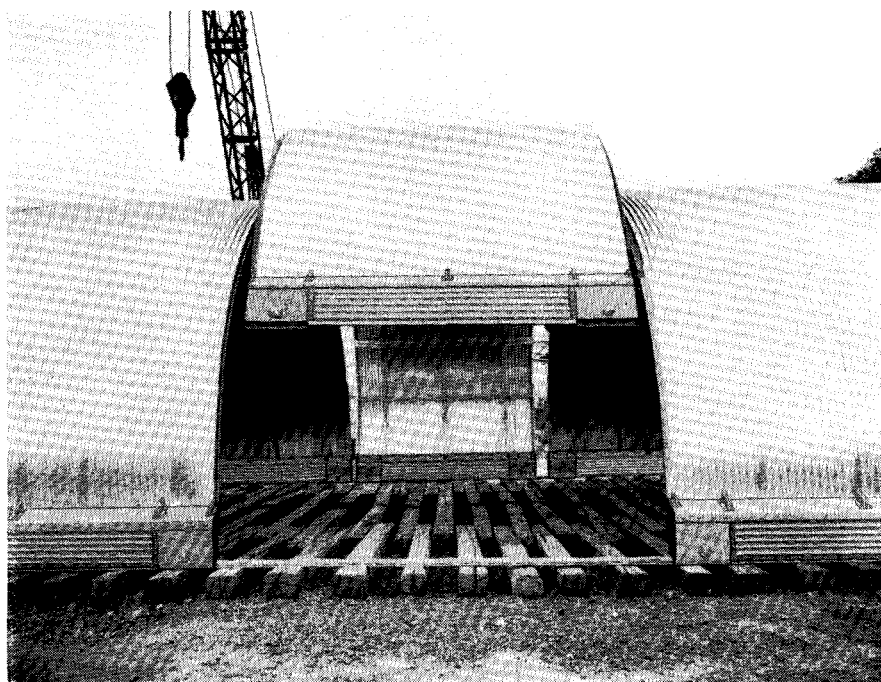
Other features of the new filter are its controlled permeability and uniform porosity which can be varied as to pore size desired. Its makers say that it has a higher degree of porosity per square inch than is available in any other high-temperature, metallic filter element. It can handle differential pressures of up to 500 p.s.i. **PE3**

Vanilla Product

A powdered vanilla product, Sucranilla, based on natural vanilla extractives, reinforced with aromatics fixative values, is a new development of the Dodge & Olcott, Inc. For shelf life testing in the D&O labs, samples

Portable Storage

Yard-Stor Shelter Co., manufacturers of a portable sectional metal storage shelter that tilts, telescopes, and slides apart for easy access, announces that its shelter will be offered on a rental plan for emergency and temporary uses through local crane and fork truck rental services. The company has developed a low-bed trailer for local deliveries which will accommodate two fully assembled shelter sections. **PE4**



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of Sucranilla were exposed in open containers to light, air, and temperature fluctuations during hot, humid weather for a period of more than two months, and retained their full aroma. Long shelf life, it is reported, can be expected in products such as dry puddings, desserts, and cake mixes, and the product may also be used in flavoring powdered milk drinks and ice cream. **PE5**

Continuous Dust Filter Unit

A dust filter which is said to make possible a highly efficient, automatic, continuous, low cost filter has been announced by Day Co. Known as the Day Type RJ dust filter, it handles air volumes up to 1200 cu. ft./min.

Cleaning and discharge of material is handled automatically and continuously. It employs the Hersey principle of high velocity reverse air cleaning. The filter differs from the usual Hersey principle in that the dust is deposited on the outside of the filter sleeves. In all there are 12 filter sleeves employed in the unit and the felted filter media is used. Reverse air for cleaning the filter sleeve surges from an indexing drum through each sleeve individually.

All moving parts in the filter are located on the clean air side of the filter media. The entire unit is shipped assembled and the only installation required is the piping and electrical connections. It can be arranged for portable operation by mounting on casters. The filter can be furnished for pressure or vacuum operation and it also may be ordered with or without a dust fan or casters. There is also a choice of a dust drawer or hopper for intermittent operation or a hopper and rotary valve for continuous discharge. **PE6**

All-Metal Hopper for Bulk Storage

Smoker Farm Elevators, Inc., has introduced an all-metal bulk storage vault for safe and dry storage of 2.5 to 3 tons of granular, powdered, or similar type materials, depending on the specific gravity of the material.

The vault is designed for exterior or in-plant storage and is weather-proof and vermin-proof. Exterior frame is of 3-in. angle-iron with tubular cross braces; the hopper section is heavy-gage, rust-resistant galvanized sheet. Cadmium-plated nonrust nuts and bolts are used throughout for easy assembly and erection. The roof section has a 3-in. hole through which the

vault is loaded by means of a blower. Immediately below the loading hole is a 6-in. air-exhaust hole. Design of the roof section permits positioning of the loading hole on any one of the four sides for convenience in loading.

A 12 by 12 in. discharge opening, with a sliding gate that controls gravity discharge of material, is located at the base of the hopper. Hopper is designed with two of the four sides perpendicular to the floor, which is said to prevent packing and assure free discharge of stored materials. The Smoker vault measures 6.5 by 6.5 ft. at the base and is 13.5 ft. high. Additional 32-in. high hopper sections are available. A maximum of three extra sections may be added, with each added unit increasing the capacity of the vault by about 1.5 tons. **PE7**

Aluminum Neoprene Paint for Greenhouses

Adhesive Products Corp. announces development of APCO aluminum Neoprene paint, a protective coating for greenhouses. It has particular application as a maintenance coating under extremely humid conditions and is said to be able to successfully withstand severely hot climates.

The paint is claimed to have good adhesion to both wood and metal, to retard rust, and to be unaffected by fungus. **PE8**

Aureomycin Dip for Poultry

American Cyanamid Co. has announced the availability of a dip formulation of Aureomycin for use in poultry processing. Called Acronize, the dip is used (10 p.p.m. of Aureomycin) in the ice-slush mixture, in which dressed poultry is cooled after evisceration and washing. Now permitted for use on poultry by the Food and Drug Administration, Aureomycin is said to maintain freshness in packaged and refrigerated poultry for 14 to 21 days. The 7 p.p.m. residue tolerance established by FDA as safe is said to be destroyed by cooking of the poultry. **PE9**

Casein for Bread-Making

Sheffield Chemical Co. announces availability of Sheftene C2, an edible milk protein (casein) for use in bread. At a 3.3% level in 3% nonfat milk bread, it is said to produce a loaf with nutritional qualities equal to bread containing 12% nonfat dry milk.

According to the company, Sheftene doughs are readily handled in com-

mercial equipment, and the taste, odor, or crust appearance of bread is not altered. It is approved as an optional ingredient (as milk protein) in the federal definitions for bread, white bread, and rolls.

A light cream, finely divided powder, Sheftene is made by concentrating the protein of freshly separated skim milk. Said to be nonhygroscopic, it can be handled and stored in its original container in the same way as nonfat dry milk. Exposure of Sheftene C2 to high humidities and temperatures above 110° F. should be avoided, however, the company says. **PE10**

Drum Pump of Plastic

A drum pump made of plastic is available from Pex, Inc. Suitable for any container with a 2-in. bung, it dispenses a measured ounce at a time and may be used with acids, alkalis, detergents, heavy or light viscous materials, and many other liquids. **PE11**

Reagent for Forming Peptide Bonds

Mann Research Laboratories has announced improved purity, greater quantity production, and a lower price for *N,N*-dicyclohexylcarbodiimide reagent. Previously used only in the synthesis of phosphate esters, the reagent has also been found useful in the formation of peptide bonds. Mann is producing a 99.8% pure product and the price had been reduced 40%. **PE12**

Glucose Oxidase-Catalase Enzyme System

Takamine Laboratory offers a glucose oxidase-catalase enzymes system to canners of carbonated soft drinks. A catalyst which promotes the reaction between glucose and oxygen, the enzyme is thus able to remove oxygen from products when glucose is present.

According to the company's announcement, a cooperative study between it and a major can company has established that the enzyme system reduces can corrosion and iron pick-up and protects the flavor and color of drinks containing azo-type food grade dyes. The high acidity of soda pop tends to increase the activity of any corrosive component present in the beverage, and iron pick-up can be caused by oxygen in the head-space of the can and dissolved in the drink, according to Takamine. Flavor and color changes occur in some beverages when corrosion takes place. **PE13**