

New Products and Equipment . . .

Streptomycin-Glycerin Spray

A spray mixture combining streptomycin and glycerin has been developed by Merck & Co.

A previous streptomycin formulation marketed by Merck under the trade name 'Agristrep,' has been used successfully during recent years in bacterial spot of tomato and pepper, halo blight of beans, fire blight of apples and pears, walnut blight, and others. The new mixture gives promise of controlling common bacterial blight in beans, a disease which cannot be controlled by formulations now on the market. There are indications it may lead the way to better control of diseases in many other forms of plant life.

According to Merck researchers, the success of this development indicates the possibility that a spray of this combination type may be devised to provide increased effectiveness against other disease-causing organisms which infect leaves, flowers, and stems of various fruits and vegetables.

Some experts have thought that there is a need for an agent which, when combined with streptomycin, will prevent the antibiotic from being washed off the leaves by dew or rain.

In greenhouse experiments at Merck, the addition of glycerin to streptomycin sprays caused an increase in the effectiveness of the antibiotic against the common bacterial blight of Pinto beans.

This improvement is believed to be due to the capacity of glycerin to aid the absorption of streptomycin by leaves and other plant tissues. Although investigation is continuing to amplify these findings, it is felt that the addition of glycerin to the spray may serve to maintain moisture on the leaves, thus facilitating the absorption of the antibiotic into the plant.

The glycerin-antibiotic mixture is now being field tested against common bean blight. **PE 1**

New Pulverizer Permits Simple, Quick Changing of Particle Sizing

A verticle hammer mill with built-in air classifier, is available from Metals Disintegrating Co., manufacturers of pulverizers, air conveying and dust collecting equipment.

The new unit is claimed to be unique in its ability to shift from one particle size to another in grinding operations. The mill can be easily adjusted to run the entire range of its particle sizing within five seconds.

The new unit will handle a large range

of dry, reasonably non-abrasive materials, mineral, chemical and vegetable.

The pulverizer requires a floor space of approximately 28 square feet for its installation and operation. Its overall height is less than 4'6", including base, motors, etc. Weight of unit is 900 lbs. It is driven with a 5 hp. vertical motor. **PE 2**

Two Coloring Agents for Food Industry

Two coloring agents, Pfizer vegetable color and Pfizer beta carotene, are being offered to the food industry by Chas. Pfizer & Co., Inc.

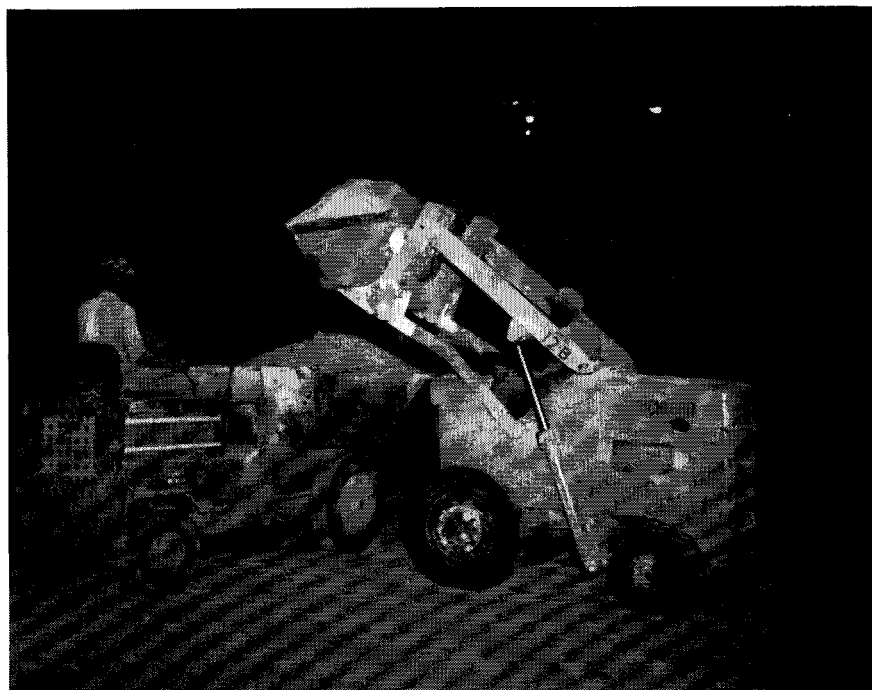
Both products, which can be blended with vitamin A to specification, show a high degree of color uniformity and stability. They are claimed to be ideal for imparting a natural yellow color to margarine, shortening, butter, bakery products, edible oils and allied products.

Pfizer vegetable color is an oil-soluble 20% suspension of micro-crystalline annatto color in refined winterized cottonseed oil.

Pfizer beta carotene is a stable, nutritional coloring agent with high vitamin A activity and it can be blended with additional vitamin A for increased nutritional value.

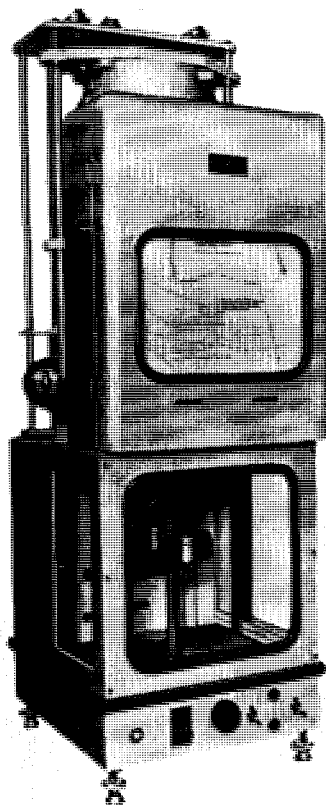
Tractor Shovel

Michigan 12B Tractor Shovel of 15-cu.-ft. capacity loading fertilizer. Like larger units in the Michigan line, the 12B features a power-shift transmission, a torque converter with 3 to 1 torque multiplication, a planetary wheel axle, and low level bucket action. For dust protection, transmission, torque converter, starting motor, distributor, and generator are all sealed **PE 4**



19-19-0, and 13-39-0, compounds have also been produced. By means of this new process an almost infinite variety of high-grade, concentrated granular fertilizers may be manufactured depending upon the ratio in which sulfuric and phosphoric acids are combined with phosphate rock, potash and ammonia. **PE 5**

Recording Thermo Balance



Stanton Thermo Balance for laboratory technicians available from Burrell Corp. The instrument provides combined heating and weighing of materials under test and furnishes a continuous, permanent, visual pen record of all changes. "Heat to constant weight" can be determined easily in research or for control of processes. Other uses include determinations of moisture, volatile, and ash; the preparation of oxidation curves and evaporation rates; carbon and sulfur determinations; atomic weights; reagent purities and many others. The recording cycle may be changed to suit varying applications **PE 6**

Antioxidant for Poultry and Cattle Feeds

Vianol, a chemical antioxidant similar to one which has been cleared for use in foods for human consumption, is now available as an additive to poultry and livestock feeds, from Bowman Feed Products, Inc.

In addition to acting as a stabilizer for Vitamins A, D, and E, the new anti-

oxidant, which is oil-soluble, assures feed manufacturers of a product that can be evenly and uniformly distributed throughout a mix. Vianol can be added with any of the common oils used in feeds and by means of regular equipment.

The antioxidant was developed after intensive research and testing by Shell Chemical Corporation and is manufactured at the company's plant in Martinez, California. Bowman Feed Products, Inc., is distributor for this product **PE 7**

Thiophene

Sharples Chemicals Inc. has announced it is now supplying commercial quantities of thiophene for use in the manufacture of dyes and pharmaceuticals. Thiophene is expected soon to be widely used in plastics, resins, and agricultural chemicals.

A highly versatile heterocyclic sulfur compound, thiophene has a number of interesting properties. In reactivity it is similar in many respects to phenol, benzene and certain unsaturated hydrocarbons. It is readily nitrated, halogenated, alkylated, acylated, aminated and undergoes condensations with formaldehyde and maleic anhydride.

Commercial production of thiophene was brought on stream this month in the new plant facilities operated by Index Chemical Company, Houston, Texas, a subsidiary acquired by Pennsalt in January, 1955. **PE 8**

Meter for Soil Moisture

The Bouyoucos soil moisture meter is now being manufactured and distributed by Industrial Instruments, Inc. The

moisture meter reads directly in percentage of available soil moisture and provides a means of controlling irrigation.

The moisture meter is used in conjunction with special plastic impregnated gypsum blocks that are buried in the soil at root level. Wire leads are brought up from the block to the surface for connecting to the meter. Weighing less than 1³/₄ pounds and provided with a strap, the meter is easily carried around by the operator.

Electrical power for the meter is supplied by ordinary penlite flashlight batteries self-contained in meter housing. **PE 9**

Calcium Cyclamate Being Produced by Du Pont

A non-nutritive sweetening agent, "Cylan" calcium cyclamate, is now available in commercial quantities from the Du Pont Company. This material is in full-scale commercial production in a new unit of the James River Works, near Richmond, Va.

This new unit provides "Cylan" to the food processing, canning and beverage industries for use in foods and beverages for special diets. "Cylan" improves the taste and palatability of many low-calorie foods in weight-reducing diets and is also useful in certain diabetic foods where it is desirable to restrict carbohydrate intake.

"Cylan" has no unpleasant after-taste and can be used in cooking, baking, and canning without loss of sweetness. It is supplied to industry in the form of readily soluble white crystalline granules, and is available in 100-pound drums. **PE 10**

Use . . .

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