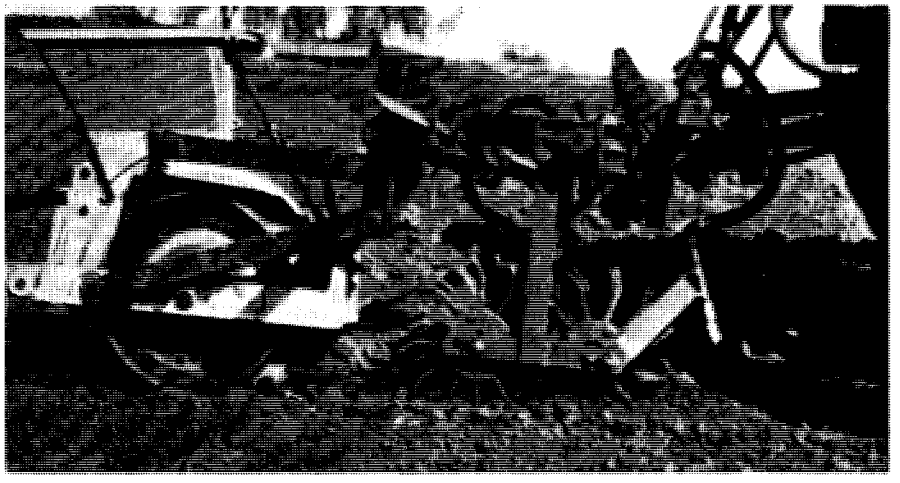
New Products and Equipment . . .

Pre-emergence Herbicide for Sugar Beets

Carbide & Carbon announces that its pre-emergence weedkiller dichloral urea will be available to sugar beet growers this season in commercial quantities under the trade name Crag DCU 73W. The herbicide is said to give protection for two or three months against foxtail, barnyard grass, wild oats, and volunteer oats and barley if sprayed at planting time.

Tests of the weedkiller have been made in Colorado, Ohio, Michigan, and Wyoming. Results have shown that DCU's effectiveness ranges from 80 to 100%. Broadleaf weeds were 50% control, the company says. DCU's chemical name is 1,3-bis (2,2,-2-trichloro-1-hydroxyethyl) urea. **PE1**



Combination spray-tiller used to apply DCU in a 6-in. band and tilled 2 in. deep at planting time. The device, designed for use with 4-row planter, will sell for about $80. Cost of material to treat one acre is $3.33 and estimated saving for a 100-acre sugar beet stand is about $900

Concentrated Liquid Fertilizer

Shur-Green, a concentrated liquid fertilizer for lawn and garden use, manufactured by Continental Fertilizer Co., Nevada, Iowa, will be available to most areas in the Midwest this spring.

It comes in a concentrated liquid form which is applied as the turf or soil is watered. The garden hose is attached to an attachment called a Gro-Gun at the top of a quart container, and as the water sprays through it the liquid fertilizer and water is automatically mixed in the correct proportion. One gallon of Shur-Green is sufficient to fertilize 2000 square feet. Different formulas are produced by the manufacturers for various areas that have nutritional deficiencies. **PE2**

Carotene with Vitamin A

Barnett Laboratories announces the offering to margarine manufacturers of their highest quality natural carotene with vitamin A (either natural or synthetic). The product will be supplied according to customers' specifications in batch size containers with potencies fully guaranteed. **PE3**

Emulsifiers Allow Farmers to Mix Fertilizers, Insecticides

Two emulsifiers developed by Emulsol Chemical Corp. make it possible for farmers to mix pesticides with liquid fertilizers in the field, according to the company. The two products—Emcol H-A and Emcol H-B—make it possible to mix aldrin, BHC, chlordan, dieldrin, endrin, heptachlor, or nemagon with liquid fertilizer solutions, including aqua ammonia, phosphoric acid, and mixed fertilizers.

The company says that emulsifiable concentrates containing the two emulsifiers can also be used for conventional spray applications. **PE4**

Surfactant for Pesticide Formulations

An anionic surface active agent recommended for use as an emulsifier or dispersant in agricultural sprays and insecticides is announced by Johnson-March Co.

The sulfonated ester-type liquid is reported to have a broad range of solubility in water and nearly all organic solvents. Called Isomal 265, it has a neutral pH factor and a specific gravity of 1.088 at 60° F. It is stable at elevated temperature, compatible with both nonionic and other anionic agents, and has no upper or lower cloud point, the company claims. **PE5**

Applies Granular Insecticides During Fertilization

E. S. Gandrud Co., Inc., announces availability of a dry chemical applicator that can be attached to all makes of planters. The applicator can apply granular insecticides in quantities as low as 8 oz. per acre at the same time as fertilizer is applied. **PE6**

Micro-Fernbach Flask

A micro-Fernbach flash, made of borosilicate glass in three small sizes, has been introduced by Kimble Glass Co. Available in 5, 10 and 25 ml. capacities, the small, broad base flask can be used for growing aerobic organisms in liquid culture media. The broad base provides stability, and the thick walls and reinforced lips withstand rough usage. To provide better illumination of photosynthetic organisms, special Neutraglas caps are provided.

The new flasks are especially useful in microbiological assays of vitamins. The 10 ml. size is particularly adapted for Euglena and Ochromonas assays for Vitamin B_{12}. **PE7**

Davison Includes Molybdenum in Nurish Fertilizer

Davison Chemical Co. is now including minute amounts of molybdenum in its Nurish fertilizer, a 20-20-20 water soluble product. Nurish contains a number of other trace element nutrients. It is sold in 1- and 3-lb. polyethylene bags and in 80 lb. polyethylene-lined paper bags, 3 lb. of it being added to 100 gallons of water for spraying on fruits and vegetables. **PE8**

Plastic Petri Dishes

Sterile plastic Petri dishes designed for one-time use are being placed on the market by the Chicago Apparatus Co.

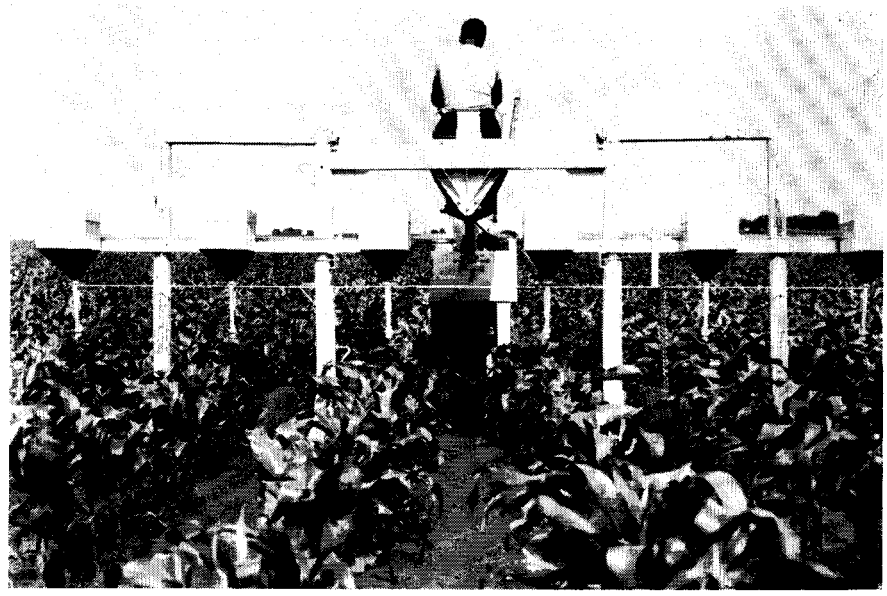
The disposable plastic dishes are less than 9 cents each, depending on quantity, less than one-sixth the price of a glass Petri dish. It costs as much as 8 to 16 cents to get a glass dish ready for re-use, according to Chicago Apparatus, since it must be autoclaved, soaked, scraped, washed, rinsed, descaled, and baked. **PE9**

The Petri dishes are made of styrene plastic, are optically clear, and scratch free. They have a heat distortion point of 90° C., are guaranteed sterile and pyrogen-free, and are packaged to remain sterile for an indefinite shelf life. They meet the requirements for sterility set by U. S. Pharmacopeia. The plastic material contains no inhibiting agents and is inert to biological reagents, the company says. **PE10**

Propionaldehyde

Propionaldehyde produced at Carbide's Oxo unit at Texas City, Tex., is now being supplied in tank car quantities, according to Carbide & Carbon Chemicals Co.

Propionaldehyde applications parallel those of acetaldehyde. It undergoes aldal condensations to make higher alcohols, acids, aldehydes, and dials and, as a reactive intermediate, should be of broad general interest in chemical synthesis. **PE11**



Granular Insecticide Applicator

Hopper-type granular DDT applicator developed by Noble Mfg. Co. is engineered to drop the granules into the corn whorls with a minimum of waste. Available in six-row model as shown for adaptation to high clearance sprayers and detasslers. A four-row applicator is also available for use behind tractors PE13

Ribbon Mixers

A line of heavy-duty, ribbon-type mixers for processing mixes of dry powders, crystalline materials, dry colors, and for cutting fats, oils, or shortening into dry flour or powders is announced by Cincinnati Hildebrand Co.

Six different agitator designs are available with the new mixers: special agitators to provide end or center discharge of the mix, T-head agitators for reducing lumpy type mixes, and a "cut-it-in" type agitator for shortening blending.

The standard units are equipped with a center discharge continuous ribbon agitator, and are constructed of steel. In addition to optional style agitators, the mixers may be supplied in stainless or other alloys on special order. Standard discharge heights vary from 12 to 19 in., but may be supplied to suit installations.

The eight mixers in the line range from 25- to 450-gal. capacity. **PE12**

Pilot Plant Dryers

Hardinge Co., Inc., has introduced a self-contained pilot plant or laboratory size Ruggles-Coles rotary dryer available in three models.

All units require only fuel and electrical connections to be placed in operation. They can be moved easily from place to place.

Model XH-XF is a single-shell, direct-heat, gas-fired dryer, which can be arranged for either parallel or counterflow operation.

Model XB is a double shell, indirect, gas-fired dryer, particularly suited for high temperature drying without contaminations. Volatiles can be easily separated from the solids.

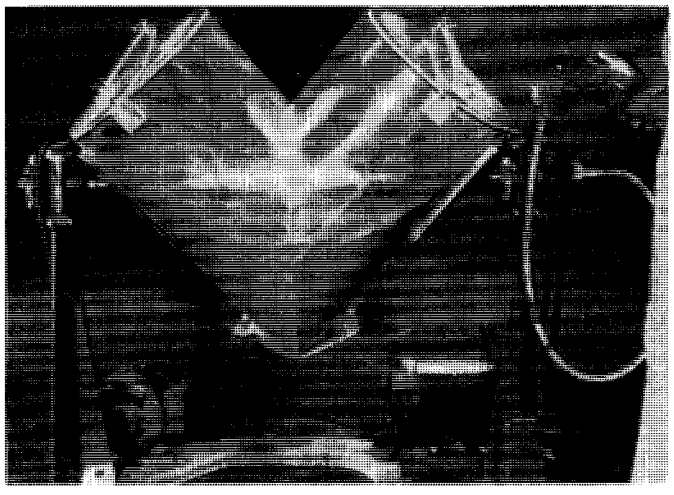
Model XC is a steam tube dryer for small capacity operations. **PE14**

Liquid-Feed Blender Benefits Process Industries

A liquid-feed blender for commercial processing that blends liquid and dry materials swiftly in one operation has been perfected by the Patterson-Kelley Co., Inc.

Designed as an integral part of the company's twin shell blender, the liquid-feed modification makes it possible to feed liquids evenly into dry materials during blending.

The new device consists of an improved intensifier bar which revolves inside the twin shell blender. Liquid flows from a hollow feeder tube within the bar, onto a revolving offset disk. Liquid droplets are flung from the edge of the revolving disk by the slinging action of centrifugal force. It is this slinging action, combined with the wiping action of the dry material on the disk, that achieves dispersion. A cylindrical wire cage surrounding the intensifier bar and revolving with it prevents the formation of any clumps. **PE15**



A laboratory model of the blender in action. Liquid is added at right. It is available in sizes, ranging from 3 to 50 cu. ft. capacity