

# PRODUCTS AND PROCESSES

## B<sub>12</sub> Concentrate For Feed Supplements

Heyden Chemical has begun commercial production of a vitamin B<sub>12</sub> feed supplement concentrate, under the trademark Pro-Gro-B. According to the manufacturers, the concentrate is a primary fermentation product of high stability and potency which has been designed to be used with Heyden's Pro-Gro. Pro-Gro is described as a flexible antibiotic feed supplement in concentrated form for specialized formulation needs of suppliers of animal feed supplements. The development of these two types of feed supplements, B<sub>12</sub> and procaine penicillin G, in concentrated form is intended to make it possible for processors of feedstuffs to develop more economic formulations at substantial reductions in shipping costs and storage.

The B<sub>12</sub> supplement, Pro-Gro-B, is compatible and stable with other feed components such as vitamins and minerals which the blender may plan to use. The concentrate is designed as a free flowing product requiring only simple mixing procedures. The material will be available from Heyden in bulk quantities only. **P1**

## Enzymes Useful in Prolonging Shelf-Life of Dried Eggs

Chas. Pfizer & Co. is marketing an enzyme product called Glucataze which is said to be useful in increasing the storage life of dried eggs. Glucataze, composed of glucose oxidase and catalase, removes the glucose from egg yolks and whites.

Reaction between glucose and cephalin is responsible for color, flavor, and solubility changes in dried eggs. Glucose oxidase transforms the glucose to gluconic acid and hydrogen peroxide and catalase decomposes the hydrogen peroxide to water and oxygen. **P2**

## Liquid Krilium for Preventing Soil Crusting

Monsanto Chemical Co. has started marketing a liquid formulation of its Krilium soil conditioner. According to the company's announcement, this newest Krilium product is designed specifically to control crust formation in row crops. Monsanto figures that farmers can prevent the formation of crust for \$5.00 an acre.

The liquid conditioner is mixed with water and applied directly to the surface of worked soil. Conventional spray equipment will do the job, Monsanto says. The liquid is applied to planted

bands or strips varying from 0.5 to 4 in. in width.

The company cites tests with cotton, which involved 50-inch row spacing. Krilium liquid requirements were 0.5 gal. in the case of 0.25-in.-wide bands and 1 gal. in the case of 2-in. bands. Tests were performed at North Carolina State College and Ohio State University as well as at Monsanto's laboratories.

Composition of the liquid soil conditioner is not revealed, although a company spokesman says it is a new chemical not too different from other Krilium formulations. **P3**

## Soluble Fertilizer for Home Gardeners

Du Pont will be offering a soluble fertilizer for home gardeners this spring. The product, to be known as Du Pont soluble plant food, is a formulation of nitrogen, phosphorus and potassium in the ratio of 19-22-16, with essential trace elements. The plant food combination is intended for use as a fast acting, clean, odorless spray for house plants, vegetable gardens, fruit trees, and lawns.

According to the manufacturers, spraying plant food is particularly desirable during periods of summer drought. Ordinary fertilizer placed on the soil must be made soluble by soil moisture before it can be absorbed by the root system. Feeding nutrients by the spray method applied to the foliage is supposed to offer a saving in both time and irrigation water. **P4**

## Carbobenzoxy Chloride in Large Quantities

Carbobenzoxy chloride (benzyl chloroformate) is available in commercial quantities from Mann Research Laboratories, Inc. The compound is a standard starting material for the synthesis of peptides and peptide intermediates and is also used for blocking amino or hydroxyl functions generally. Availability in commercial quantities will relieve researchers of the necessity of synthesizing it, which requires the use of phosgene. **P5**

## Floor Wax — Insecticide

A combination floor wax and insecticide is being produced by the Freewax Corp. According to the manufacturers, this product offers consumers the dual service of shining floors and killing bugs in one easy operation. The insecticide, lindane is incorporated in a nonrubbing wax base. The preparation is claimed to

be effective against roaches, ants, waterbugs, silverfish, and other household insects. **P6**

## B<sub>12</sub> Feed Supplement

An improved form of vitamin B<sub>12</sub> containing 12 mg. as a feed supplement is available from U. S. Industrial Chemicals Co. USI is continuing production of its 6 mg. per-pound feed supplement which has been available for some time. **P7**

## Soil Conditioner for Preventing Erosion

Control of wind and rain erosion on construction sites, levees, rights-of-way, and the like is the purpose of Monsanto's recently introduced Bondite soil conditioner formulations. According to the company's organic chemicals division Bondite is designed to stabilize aggregates on the soil surface to hold the seed and soil in place until vegetation germinates and becomes established.

Tests indicate that the soil conditioner is ordinarily effective at the rate of 1 lb. per 100 sq. ft. or 436 lb. per acre. Under some conditions, half this rate has proved effective, says Monsanto. The product can be applied as a powder or a water solution. Five formulations of Bondite are available. Three of these are hydrolyzed polyacrylonitrile formulations and the other two are modified vinyl acetate-maleic acid. The polyacrylonitrile formulations are also suggested for use in tying down vegetative mulches and wood chips. When sprayed over these materials, according to Monsanto, at a rate of 200 lb. per acre, the solutions bind the mulch material into a continuous mat and prevent it from being blown about by the wind. **P8**

## More Concentrated Terramycin For Mixing in Animal Feeds

A concentrated form of terramycin for mixing in animal feeds is being produced by Chas. Pfizer & Co. According to Pfizer, the product, known as TM-10, has twice as much antibacterial activity per pound as TM-5, the earlier feed supplement for growth stimulation containing a guaranteed antibiotic level.

According to Pfizer's agricultural sales division, TM-10's purpose is to provide the feed manufacturer with a relatively concentrated form and not to increase antibacterial activity of finished feeds. Only half as much TM-10 is required

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per ton of feed to obtain the same results as with TM-5, Pfizer emphasizes.

To control blue comb and nonspecific enteritis 4 lb. per ton of TM-10 is recommended (or 8 lb. of TM-5); for diarrhea or scours of calves, lambs, and pigs, 10 lb. of TM-10 will replace 20 lb. of TM-5. Similar reductions in the amounts necessary for growth are recommended in poultry, hog, calf, and mink feeds. **P9**

### Company Seeks Uses for Foaming Flotation Agent

Western Condensing Co. is producing a dairy by-product that can be used as a foaming, flotation agent.

The company said the by-product is a natural, not a synthetic, agent. It is also nontoxic, the company claims. It can be made available as a spray-dried powder in both edible and commercial grades.

Western Condensing spokesmen say they will welcome inquiries on possible uses of their product. **P10**

### Polyacrylite Soil Conditioner

The B. F. Goodrich Chemical Co. has recently expanded its manufacturing facilities for their soil conditioner Good-Rite K-700. The company manufactures K-700, sodium polyacrylite, for formulators and commercial packagers of soil conditioners. The material is available in a liquid or dry, water-soluble form. The company claims that the polymer has outstanding ability to form soil aggregates of the size most beneficial for good plant growth and to stabilize or fix the aggregates which result from cultivation. **P11**

Watering both samples simultaneously shows how untreated soil washes away. Soil treated with Good-Rite K-700 forms aggregates, holds soil particles together.



## LITERATURE AVAILABLE

**Air Filter.** Technical bulletin describing and illustrating construction and function of the Ultra-Air space filter. MINE SAFETY APPLIANCES CO. **L 1**

**Ammonium Thiocyanate.** Data bulletin includes properties of the solid and aqueous solution of ammonium thiocyanate; also agricultural applications in which the material is used as a defoliant and herbicide. J. T. BAKER CO. **L 2**

**Automatic Bagging Scales.** Bulletin on automatic bagging and weighing scales available for fertilizer packaging includes application information and operating characteristics of the equipment. RICHARDSON SCALE CO. **L 3**

**Chemical Resistant Enamels.** Specifications and applications of four different chemical resistant enamels which may be applied to concrete, brick, metal, and wood. INERTOL CO. INC. **L 4**

**Disinfectant Formulations.** Typical disinfectant formulations of Santophen 1 germicide, recommended for sanitizing and deodorizing applications. MONSANTO CHEMICAL CO. **L 5**

**Dust Collector.** Bulletin illustrating applications and engineering features of self-cleaning, cloth-screen dust collector. PANGBORN CORP. **L 6**

**Electronic Facilities.** Booklet covers available facilities and activities of the electronics group of the AIRRESEARCH MFG. CO. **L 7**

**Glass Distillation Equipment.** Price-list includes description of various types of fractional distillation equipment, reflux condensers, and related accessories. GLASS ENGINEERING LABORATORIES **L 8**

**Heat Exchangers.** Illustrated bulletin on air cooled heat exchangers for a wide variety of industrial cooling and condensing applications. FLUOR CORP. **L 9**

**Laboratory Equipment.** A periodical publication containing news of new equipment available from EBERBACH & SON CO. **L 10**

**Liquid Level Gages.** Set of data sheets covering complete line of liquid level gage valves for tubular and flat gages; includes specifications with illustrations of cross sections, dimensions, and standard connections. JERGUSON GAGE & VALVE CO. **L 11**

**Metal Laboratory Furniture.** Catalog illustrating an extensive line of metal laboratory furniture, based on sectional and interchangeable units. METALAB EQUIPMENT CORP. **L 12**

**Mylar Film.** Technical bulletin containing information on physical, electrical, and chemical properties of Mylar polyester film with suggested industrial applications. DU PONT CO. **L 13**

**Nutrition.** Catalog of available publications from the nutrition symposium series; also some annotated bibliographies on vitamin E. NATIONAL VITAMIN FOUNDATION. **L 14**

**Plastic Pipe.** Properties, installations, and applications of Carlon L rigid plastic pipe. CARLON PRODUCTS CORP. **L 15**

**Pneumatic Conveying Systems.** Bulletin illustrating applications of pneumatic type conveying systems to materials handling problems. CONVAIR PRODUCTS. **L 16**

**Pressure Pipeline Filters.** A four-page illustrated bulletin describing four new low pressure pipeline filters to be used on low pressure gas or air lines; the filters are recommended for removal of dust, dirt, condensed oil, and water. DOLLINGER CORP. **L 17**

**Radioactive Pharmaceuticals.** Price list and procurement information for those interested in obtaining radioactive pharmaceuticals for research or therapeutic applications. ABBOTT LABORATORIES **L 18**

**Wetting Agents, Emulsifiers.** A 28-page catalog covering detergents, emulsifiers, wetting agents, emulsifiers and dyeing assistants; includes application suggestions for agriculture and other specialty fields. ANTARA CHEMICALS. **L 19**

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