New Products and Equipment . . .

Fertilizer Caking Tester

A 7-lb. Arbor press for determining the caking characteristics of powdered materials such as fertilizer is announced by W. C. Dillon & Co., Inc. Only 11 in. high, it can be used for both field and laboratory checking.

The unit has a Dillon mechanical-force gage with red maximum pointer placed upon the lower platen of a press, directly beneath a removable ram. For checking powdered materials, a cylindrical cup is mounted to the gage, its removable inner ring is filled with the material to be tested, and the ram of the press is lowered to apply force to specification. The inner ring is removed, leaving a compressed pellet of the desired size. Final test load is brought to bear against the pellet until it crumbles, thus giving exact knowledge of caking characteristics under different conditions of moisture, temperature, and the like.

For detailed information, write George A. Dillon, Dept. A&F, W. C. Dillon & Co., Inc., 14620 Keswick St., Van Nuys, Calif.

Agitator Apparatus

A rotary agitation apparatus is available to laboratories in the milling, feed, and fertilizer industries from New Brunswick Scientific Co. The unit operates electrically, and combines the versatility of four operating speeds with the advantage of changing tilt angle for optimum variation in rate of mixing or agitation. Test tubes, small bottles, or small Erlenmeyer flasks can be accommodated on the Spinnerette.

Details are available from Dept. A&F, New Brunswick Scientific Co., P.O. Box 606, New Brunswick, N. J.

Granular Defluorinated Phosphate

A granular dust-free defluorinated phosphate is being introduced to feed mills by Coronet Phosphate Co. Screen specifications are:

	Bagged	Bulk
Minus 14 mesh	100%	100%
Minus 200 mesh	25%	10%

For further information, contact Dept. A&F, Coronet Phosphate Co., Norfolk, Va.

Copper Hydrate Fungicide

A copper compound, trademarked Dy-Q-Plex-l, is offered by Henry Bower Chemical Mfg. Co. for possible use as fungicide, molluscacide, and rodenticide. Its approximate empirical formula is:

$$[Cu(OH)_2]_{100} \cdot (PO_4)_3 \cdot SO_4$$

The phosphorus is said to make it more stable than the usual copper hydrate now available. Other properties include small particle size (less than 0.5 micron) and quick and complete reaction with cellulose in ammoniacal solutions. Possible uses include dry formulations for agricultural dusts, aqueous inorganic solutions or organic suspensions for agricultural sprays, and in wood preservative formulations.

More complete information is available from Dept. A&F, Henry Bower Chemical Mfg. Co., 2815 Gray's Ferry Road, Philadelphia 46, Pa.

Invert Emulsion Herbicide Limits Drift

A weed and brush control chemical which limits the possibility of spray-drift damage to crops has been placed on the market by Dow Chemical Co. Called Inverton 245, it is a 2,4,5-T material formulated in an invert emulsion.

The invert emulsion is a dispersion of oil particles through water—the reverse of a standard spray emulsion. This form gives the spray mixture a thick, creamy consistency. The spray is applied in large particles which do not break into a mist. This cuts the possibility of spray drift to a new low point. In addition, the product is based on a nonvolatile free acid, cutting the possibility of damage to adjacent crops from herbicide vapors.

Inverton 245 is best suited to industrial applications such as spraying along roadsides, railroads, or power line rights of way. At the present time the product is not suited for use in farm fields. Standard spray equipment can be used.

For details, write Dept. A&F, Dow Chemical Co., Midland, Mich.

Fraction Collector for Gas Chromatograph

A fraction collector accessory for the Beckman GC-2 gas chromatograph makes possible isolation of pure materials in quantities as small as 0.0002 cc. With it, the GC-2 becomes a preparative tool, separating complex liquid or gas mixtures into chromatograph-pure fractions and capturing them for analysis by infrared spectroscopy or for other studies.

The fraction collector system consists of a chromatographic column with a sample range up to 5 cc. inside the GC-2 and the collection apparatus placed next to the basic instrument. Fractions eluting from the GC-2 are condensed in fluted glass collection tubes inside a Dewar flask. After collection, a centrifuging technique developed by Beckman chemists permits recovery of minute fractions.

More information is available from Dept. A&F, Scientific Instruments Division, Beckman Instruments, Inc., Fullerton, Calif.

Water-Soluble Foods Fungistat

Potassium sorbate, a water-soluble fungistatic agent for foods, is introduced by Union Carbide Chemicals Co. The new product, a white, crystalline powder, complements Carbide's refined sorbic acid widely used as a mold inhibitor in foods. More water-soluble than sorbic acid, this new product will be particularly useful in preventing spoilage of pickles; sirups such as soft drink concentrates, pancake and fountain sirups; baked goods such as pies, cakes, and cookies; prepared mixes; fruit juices, jams and preserves; cheese and cheese products; and other foods.

Details are available from Dept. A&F, Union Carbide Chemicals Co., 30 E. 42nd St., New York 17, N. Y.

Glutamic Acid, Lysine Compounds

General Mills' central research laboratories announce the addition of three new products—γ-L-glutamic acid hydrazide, and the L and DL isomers of lysine dihydrochloride—to their recently established biochemicals line. Each of these crystalline products is now in pilot plant production.

The glutamic acid product is moderately soluble in water and its γ-carboxyl group is blocked.

The dihydrochlorides of lysine, like the well-known monohydrochloride, are very soluble in water. A possible use of lysine dihydrochloride is in dietary seasoning formulations where sodium free ingredients are desired. Such a product would also utilize the known value of lysine as a growth and appetite stimulant.

Specifications and samples are available to qualified groups interested in further exploration of these products. Additional information may be obtained by writing to: Dept. A&F, Biochemicals Development, Central Research Laboratories, General Mills, Inc., 2010 E. Hennepin Ave., Minneapolis 13, Minn.