Business Newsletter . . .

Fertilizer Expansion Still Active

Expansion in production facilities for **fertilizer chemicals is third in dollar value** for 1955 according to the Manufacturing Chemists' Association survey. Exceeded only by organic and inorganic chemicals, fertilizers racked up a total of $432.9 million in works planned, under construction, or completed during last year. Distribution: **$90.8 million planned, $246.05 million under construction, and $96.05 million completed.**

Liquid Feeds Coming On

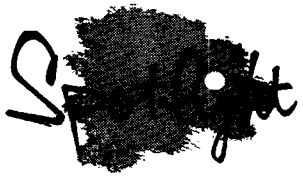
Movement into liquid feeds production (page 101) is proceeding rapidly. **Monsanto** announced in late January the marketing of **"phosphate feed solution"** to replace dry phosphates now used. The solution contains minimum 23.7% phosphorus, reported a little more than conventional dry forms. Monsanto says f.o.b. producing point cost per phosphorus unit will be about $9 a ton less than such feeds as dicalcium phosphate. Company says addition will change moisture content or pH of feeds only slightly; **no detrimental effect on vitamins, antibiotics,** or other feed components.

New Miticide, New Fungicide

A new organic miticide, reportedly able to control tough, early mites with a single application, has been developed by Allied's General Chemical Division. The new product is declared **deadly only to mites** and virtually nontoxic to bees and other beneficial insects with proper use. The compound is the 2,4-dichlorophenyl ester of benzene sulfonic acid. It will be marketed under the trade name Genite EM-923. . . . . Du Pont is preparing to market a new apple fungicide this season. Based on tetramethyl thiuramdisulfide, it is reported to give **good control of apple scab and cedar rust.** No injury to foliage or fruit has been found. Trade name: Thylate.

Expansions and New Ventures

Phillips Pacific Chemical Co. will begin construction of a 200-ton **ammonia** plant this spring in southeastern Washington, near Finley. . . . **Escambia Bay Chemical,** Pensacola, Fla., began production of **ammonia** in December and shipped ammonium nitrate solutions early in January. Rated ammonia capacity: 200 tons. . . . **Davison Chemical** has completed $300,000 worth of **fertilizer** expansion and granulation facilities in its plant at Perry, Iowa. . . . **Stauffer** has added to its **phosphate rock** reserves by uncovering deposits of commercial grade rock estimated over 5 million tons near Bear Lake, Idaho. . . . **Calspray's** new **liquid fertilizer** plant at Modesto, Calif., has begun operation. Capacity: 400 tons a day of aqua ammonia and 100 tons of neutral mixed fertilizers



- Possibility of using urea and phosphoric acid in making liquid feeds, as well as liquid fertilizer, luring manufacturers looking for ways to level out plant output (**p. 101**)
- Research and business join hands to fight the lowly nematode, destroyer of huge portion of nation's crops (**p. 102**)
- Chemicals making some progress in control of wheat stem rust, but problems of cost and plant toxicity are obstacles (**p. 103**)
- Chemical defoliants and desiccants prepare crops for efficient harvesting and their demand and popularity grows with that of mechanization (**p. 106**)

CORN PLANTER ATTACHMENT—Liquid fertilizer streams from modified corn planter shoe beneath corn as it is planted. Clod shield protects the tube feeding liquid. (Shoe is above ground for demonstration purposes.)

CULTIVATOR ATTACHMENT—With a rig like this, it's easy for a farmer to fertilize as he cultivates. Use of complete liquid fertilizer eliminates need for carrying heavy bags.

CLOSE-UP—The special attachment at bottom of shoe on corn planter delivers fertilizer into soil; permits application of liquid simultaneously with planting.

New applicator equipment means longer selling season for liquid fertilizer formulators

New applicating equipment is doing much to level out historic spring-fall peaks in fertilizer application. Ease of liquid application encourages fertilizing almost any month of the year. Pictured above are two examples of equipment progress: (1) A new modification to permit application at time corn is planted, and (2) A cultivator attachment which permits side dressing of crops with liquid fertilizer.

AN ASSURED SUPPLY. Your supply of phosphatic fertilizer solution is assured by Monsanto, world's largest producer of elemental phosphorus. Formulators: Send today for booklet "Formulating Complete Liquid Fertilizers." Write MONSANTO CHEMICAL COMPANY, Inorganic Chemicals Division, 710 North Twelfth Boulevard, St. Louis 1, Missouri.

Shoe attachment manufactured by Sawtelle & Rosprim to specifications of Agriform Company, Inc.

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Research Newsletter . . .

Biological Control of Crop Disease?

Proper crop sequences may have the effect of reducing certain plant diseases, according to H. C. Young, Ohio Agricultural Experiment Station. He has found that some **crops lower populations of harmful organisms,** possibly by producing an antibiotic. Corn and oats tend to reduce organisms causing black root disease of sugar beets. Alfalfa had little effect.

Stilbestrol Gives Size Not Speed

Research at Beltsville, Md., by USDA confirms idea that Stilbestrol saves feed but not time in finishing cattle. While **gains are faster and made on less feed,** it takes just as long to put the market finish on a steer. As a result cattle are averaging up to 75 pounds heavier when they reach the market. Eli Lilly and Co. reports that feeding at 20 times the recommended 10 mg. a day to 800-lb. cattle over 100 days produced no toxicity and there was no **detectable Stilbestrol residue** in meat or fat.

Pest Threats and Problems

Downy mildew of crimson clover, first found in U. S. last year, could become serious as much of the seed now planted is of the reseeding varieties. Volunteer growth on some ground year after year will allow build up of parasite. . . . . **European corn borers** have been found in stalks of growing **cotton plants** in Missouri and Tennessee. Later in the season they were found in bolls. No infestation of economic importance was found. . . . **Grasshoppers are likely to present a serious threat** to crops this year in more than 15 states and to 20 million acres of rangeland in 16 states in Midwest, Southwest, and West, according to USDA.

Pests and Nutrition Cattle Loss Factors

U. S. cattle loss survey by Washington State College gives some information on causes. Bloat was rated most important nutritional deficiency. Vitamin A deficiency also was important. Considerable **loss was attributed to poisonous plants.** Most damaging insect pests: lice, ox warbles or grubs, screwworms, and hornflies. Cattlemen rated **feeding and nutrition studies first** among research needed.

Miller Bill Extensions

The date on which the Miller Pesticides Amendment will become completely effective **has been extended for 10 more crops** to March 1, 1956, bringing the total for that date to 31. Diphenyl on citrus has been extended to April 22, 1956.

- Data on effectiveness of 17 coating agents in reducing or eliminating caking of granular fertilizer will help manufacturers to select right agent (**p. 132**)
- Methods for judging the suitability of urea-formaldehyde materials for fertilizer use are discussed (**p. 135**)
- Evaluation of amino acid derivatives of 4-chlorophenoxyacetic acid indicates dextrorotaty forms are more active plant growth regulators, while laevorotary forms are more selective (**p. 140**)
- Lindane dosages 10 times the normal applied to cattle without harmful effects by using mixture of lindane and chlorinated terphenyls (Aroclor 5460) in pressurized spray. Fly control was good for four weeks (**p. 149**)