

Business Newsletter . . .

Ammonia Plants—Two Go on Stream, Another Being Built

Calumet Nitrogen Products started large scale production of ammonia at its Hammond, Ind., plant last month. Of its 300-tons-per-day capacity, about 100 tons will be converted into **nitrogen solutions** and some will go into **nitric acid**. . . At Lockport, Ill., **Texaco's** plant is now **shipping nitrogen**, although not yet producing at full scale. . . About the same time, on the West Coast, the first spadeful of dirt was moved for **California Ammonia's \$5-million ammonia plant** at Lathrop, Calif. Over 500 farmers in the Sacramento and San Joaquin valleys are stockholders in California Ammonia, whose plant will be managed by **Best Fertilizers Co.** under a 10-year contract. Lowell W. Berry, president of Best, is chairman of the board of California Ammonia.

Stauffer Pesticides

Stauffer will build a **multimillion-pound plant for Trithion**, its organic phosphate, at Henderson, Nev. To be completed by February, the plant, Stauffer says, will "remove the immediate need for rationing supplies of the pesticide next season." Company says it is giving consideration to building additional manufacturing facilities for Trithion abroad. But, **for Vapam, Stauffer has granted foreign sales and manufacturing rights to Rohm & Haas.** Rohm & Haas already has suitable facilities for making Vapam abroad. In its third quarter financial report, Stauffer says its **sales of agricultural chemicals are below 1956** levels.

Batch Granulating Process Available

A batch granulation process that **can be installed for \$5000 in plants already producing pulverized fertilizer** has been turned over to National Potash for licensing. The process, developed by Lewis Eymann of North-Ag Chemical & Supply of Forest City, Iowa, can produce 12 to 20 tons per hour in one-ton mixers with grades from 3-12-12 to 5-20-20 to 10-10-10, says National. The product can be **closely sized**, it is said.

Offers Help to Keep Railroad Rates Down

NPFI has offered its services to regulatory commissions in an effort to **help railroads reduce unit operating costs.** Suggested by NPFI's traffic committee as possible steps are: "(a) Pursuing a more vigorous policy toward the abandonment of unprofitable passenger train services; (b) the substitution of trucking in lieu of rail services where operating economies may be achieved; and (c) the consolidation, where feasible, of duplicate services." The committee also **commended Southern carriers for "realistic forbearance"** in applying rate increases permitted by ICC.



- Imported fire ant now infesting 20 million acres. USDA not yet sure about which chemical to use in its long-range eradication effort (**page 797**)
- Calcium metaphosphate will become commercial next year. Although skeptical, many fertilizer men will watch it closely (**page 799**)
- Florida reserves of phosphate rock still extensive, but Mexican deposits may be threat to markets in Pacific Ocean Basin (**page 800**)
- Science of meteorology as applied to agriculture is in "miserable" condition, but signs are it is in for renaissance (**page 801**)



PHOSPHATIC ACID SOLUTION FROM NEW PLANT CUTS COST OF MAKING FERTILIZERS

Many fertilizer manufacturers can now cut their costs by formulating with Phosphatic Fertilizer Solution (wet-process phosphoric acid). Use of this chemical from U.S.I.'s new plant will, in many cases, enable you to produce standard or special granular formulas at lower cost. It will also allow you to make higher analysis grades of fertilizer. To help you determine if and how you can profit by using phosphoric, the U.S.I. Technical Service Engineers are ready to work with you.

And you can be assured of a steady supply of this basic fertilizer material . . . because the entire production of Phosphatic Fertilizer Solution at the new U.S.I. plant at Tuscola, Illinois, is available for non-captive commercial uses. This amounts to 30,000 tons of P_2O_5 per year.

You can, in fact, get *all* of the following fertilizer basics in addition to PFS on *short notice locally* from U.S.I. Anhydrous and Aqua Ammonia . . . Ammonium Nitrate . . . Nitrogen Solutions . . . Sulfuric Acid . . . and Nitric Acid.

CALL IN THE U.S.I. MAN NOW

May we suggest that you get in touch with your U.S.I. man. Let him work out optimum formulations with you. He's experienced in determining the factors that make up formula cost. He will also be glad to assist you during your trial runs.

If your costs can be lowered by using PFS (and they probably can) he'll be able to help you find out. Quickly. Reliably.

If you would like the U.S.I. man to work with you, write to us—or better still telephone collect.

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Research Newsletter . . .

Gibberellins and Plant Disease

Gibberellins can **induce growth in plants stunted by virus diseases**, says a report in the Oct. 4 issue of *Science*. In work at the Rockefeller Institute for Medical Research, Karl Maramorosch found that gibberellins, however, had no effect on the other signs of virus infection. Leafhopper vectors recovered the virus as readily from treated as from untreated plants. . . . In the *Plant Disease Reporter* for Oct. 15, Merck scientists report gibberellins had **little or no effect on susceptibility of tomatoes to early or late blight, or beans to rust**. Various other plant growth regulators do induce resistance to fusarium wilt in tomatoes. . . . The Association of American Fertilizer Control Officials has appointed a committee to study whether gibberellins should be controlled under state fertilizer laws. R. Z. Rollins of California and E. A. Epps, Jr., of Louisiana are on the Committee.

Diet and Heart Disease

The possible interrelationship between the **eating of fats and of such carbohydrates as are found in fresh fruits and vegetables** will be investigated at the University of Minnesota under a grant from the United Fresh Fruit and Vegetable Association. The study, headed by Ancel Keys, is to be made "against a background of extensive studies on **causes of coronary heart disease.**"

New Estrogen Found in Clover

A new estrogenic hormone has been isolated from Ladino clover by USDA's Western Utilization Research and Development Division lab at Albany, Calif. **Called coumestrol**, it is also present in alfalfa and strawberry clover. About **30 times more active than genistein**, one of the most potent estrogens previously found in forage crops, coumestrol is **considerably less powerful in its effect on animals than stilbestrol**.

Cobalt Bullets for Deficiency Diseases

Australia's ranchers will soon be dosing their sheep with "cobalt bullets" to correct **cobalt deficiency and protect against "phalaris staggers."** The latter is a nervous malady frequently fatal to animals confined to pastures dominated by *Phalaris tuberosa*. The heavy bullets will lodge in the rumen or reticulum, dissolving slowly to give between 0.1 and 1.0 mg. cobalt a day, and lasting for some months.



- Granulation slightly better with urea-containing ammoniating solutions (**page 834**); calcium metaphosphate also found to produce good granulated mixtures (**page 839**)
- Method of preparing nitric phosphates is as important as water solubility in determining plant availability (**page 844**)
- Metabolism of parathion in the rumen may account for its apparent lack of toxicity to cattle (**page 859**)