EXPANSIONS AND MODERNIZATIONS

Armour & Co. says it is proceeding with plans to expand nitrogen facilities at the Festus, Mo., plant recently purchased from Mississippi River Fuel Corp. Plant now makes about 240 tons of anhydrous ammonia a day, part of which is converted to nitric acid and processed into ammonia and ammonium nitrate solutions. Newly-formed Armour Agricultural Chemical Co. division will include Armour fertilizer, nitrogen, and phosphate divisions, with W. E. Shelburne as president.

A Stengel-process ammonium nitrate plant has gone on stream at the Fisons, Ltd., plant near London. It converts ammonia from the adjacent Shell plant to nitric acid and 400 tons per day of ammonium nitrate. This is shipped, as an 86% solution, to eight compound fertilizer plants Fisons has in other parts of England. Special rail and truck tanks transport the liquid, which must remain heated to over 80° C. to prevent crystallization. The nitric acid and ammonium nitrate units were designed and built by Chemical & Industrial Corp.

Rock phosphate began roasting at Central Farmers Fertilizer Co.'s electric furnace plant at Montpelier, Idaho, last month. During the next year, Central Farmers plans to turn out some 100,000 tons of fertilizer containing 55% available phosphate.

Continuous production of superphosphate at 100 tons per hour has started at Davison's Curtis Bay Works near Baltimore. A. J. Sackett & Sons Co. designed the new equipment, which replaces six batch-type units. Davison says product from continuous operation is of a better quality--more uniform in texture, practically dust free. It is said to be well suited for use in critical ammoniation and granulation units.

American Agricultural Chemical Co. has started to build a new fertilizer plant on a 64-acre site near Sleepy Eye, Minn. First phase of construction is to be completed in the fall.

Thompson Chemicals will break ground this month for the first unit of a new four-unit plant in St. Louis. The plant will produce a "new, patented, grain-control chemical for use in corn plantings" in one of the units. The first structure is to be completed by Oct. 1.

Indonesia has signed a \$30-million contract with Foster Wheeler for design and construction of a urea plant. Located at Polembang, Sumatra, it will turn out 330 short tons a day of prilled fertilizer-grade urea by the Pechiney-Grace recycle process. Some 200 tons a day of ammonia will be synthesized at the site by the Casale method. Scheduled for completion in 1962, plant will be designed to allow for a 50% expansion.

# NEW RESEARCH FACILITIES

Eli Lilly has dedicated its new \$5-million research center for agricultural sciences at Greenfield, Ind. The 500-acre center has veterinary barn and laboratories, plant science laboratory with three adjoining greenhouses, feed mill, 10,000-bird broiler house, 1000-bird caged layer house, three swine barns, and a 726-foot-long cattle-sheep barn. General areas of research to be covered at the new center are animal nutrition and animal and plant disease and pest control.

Also dedicated last month was Hooker Chemical's 3.6-million research center at Grand Island, N. Y. On a 61-acre site, the building has about 70,000 square feet of floor space and was designed for possible future expansion.

American Maize is building a two-story laboratory at Hammond, Ind., to expand both research and quality control.

Frontier Chemical, Division of Vulcan Materials, will build a new



# SAFE SPRAYS START WITH



You get the safety factor you need... with full *insecticide potency*... in formulations based on either of these outstanding synergized pyrethrum compounds.

As a low-toxicity botanical, pyrethrum is among the safest pesticide to use. By adding SULFOXIDE, Penick multiplies the potency of pyrethrum many times over to give you these important benefits:

- excellent knock-down and kill!
- effective against all flying and crawling insects!
- recommended for use against resistant strains!
- mild odor . . . no irritation of nose and throat!

If your usual source can't supply you, we'll gladly send where-to-buy information. Write Penick, briefly outlining your intended use. We will be happy to answer any inquiry you may have on these unique products.

Farm Chemical & Insecticide Division S. B. PENICK & COMPANY • 100 CHURCH ST., NEW YORK 8 • 735 W. DIVISION ST., CHICAGO 10 research and development building at Wichita, Kans. Its 10,000 square feet of floor space will accommodate 20 chemists and engineers.

Harris Laboratories, Inc., Lincoln, Nebr., has bought the equipment and facilities of Soil Consultants Bureau, Kansas City Testing Laboratories, Kansas City, Mo. Harris will move the equipment to its Lexington, Nebr., laboratory in order to expand research and field trials of insecticides, herbicides, fungicides, fertilizers, and feed additives for manufacturers. Harris will also double the capacity of its pharmacology division at Lincoln, Nebr.

#### REALIGNMENTS

International Minerals is combining its potash and phosphate divisions into a new "streamlined" agricultural chemicals division. Under the new organization, salesmen will sell the full line of IMC fertilizer materials. Nelson C. White, who headed the old potash division, becomes vice president in charge of long-range planning for agricultural chemicals; and George Moyers, who headed the phosphate division, becomes vice president, special assistant to the president on agricultural chemicals assignments, and head of phosphate export sales. Two new vice presidents in the agricultural chemicals division are: Leonard W. Gopp, who will be in charge of sales; and David J. Stark, in charge of operations. Gopp was general sales manager for phosphate chemicals, and Stark was vice president and production manager for Escambia. Three sales departments will report to Gopp: feed ingredients department, headed by John K. Westberg; direct application rock phosphate department, headed by Joseph L. Mealy; and the basic materials department, headed by E. C. Horne. Horne, who was formerly with Bradley & Baker, will direct sales through regional managers in New York, Shreveport, Indianapolis, Minneapolis, and Atlanta. R. E. Linderman will be product manager for phosphate, and S. B. McCoy for potash.

The old Grasselli Chemicals Department of Du Pont is no more. Its functions are being combined with the agricultural chemical, industrial chemical, and antifreeze operations of the Polychemicals Department to form a new Industrial and Biochemicals Department. Polychemicals continues, but it will be devoted entirely to plastics, nylon intermediates, and polymer research. Clark W. Davis, general manager of the old Grasselli department, will be general manager of the new department.

Miles Laboratories has realigned some of its divisions into a new subsidiary, Miles Chemical Co., that will operate in the livestock feed field. Miles Chemical will consolidate Sumner Chemical (acquired in 1946), Takamine Laboratory (acquired in 1956), and citric acid production. Howard F. Roderick, formerly with IMC, will be president of Miles Chemical. Long-range plans are to expand into international production, to make additional acquisitions, and to move into new markets.

Smith-Douglass and Smith Agricultural Chemical officials have agreed to merger terms, subject to stockholder approval. And on Aug. 1, Smith-Douglass will discontinue use of various division identities.

# NEW ORGANOPHOSPHATE FROM CALSPRAY

<u>Calspray has introduced Dibrom</u>, an organophosphate insecticide that controls a wide range of insects on a long list of crops. Chemically, Dibrom is 0,0-dibromo-1,2-dibromo-2,2-dichloroethylphosphate. Calspray says its new product has a lower mammalian toxicity than DDT. With a short residual toxicity, it can be used close to harvest. It has been registered on a no-residue basis for use on a number of crops.

#### NITROGEN FERTILIZER PRICES

Allied Chemical says it will continue its present price on nitrogen fertilizer solutions-\$120 per ton of nitrogen-until October. At that time, price will go up to \$124 a ton, then advance to \$128 on Jan. 1.

Spencer has a new price schedule for ammonium nitrate. Beginning in August, ammonium nitrate (f.o.b. Spencer's plant at Military, Kans.) will be \$63 a ton. Thereafter, price will increase \$1.00 per ton per month. From January through July, price will remain at \$68. Delivered prices will be based on established geographic freight zones.

#### FOOD LAWS AND REGULATIONS

FDA has put a freeze on use of diethylstilbestrol and other estrogens in animal feeds and on veterinary antibiotics that contain arsenic compounds. Behind the freeze is FDA's interpretation of the Delaney anti-cancer amendment to the new food additives law. Until FDA's interpretation is overturned, or upheld, status quo has to be maintained for these products--no new producers can get into field, present formulas and labels can't be changed, and no new business can be solicited.

Secretary of Health, Education and Welfare Flemming has <u>sent to</u> <u>Congress a proposed bill for dealing with use of color additives to</u> foods, drugs, and cosmetics. Main feature of the proposal is the setting up of a tolerance system. In addition, all color additives--not just the coal-tar colors--would come under the proposed new law.

Shell has withdrawn, without prejudice to future filing, its petition for establishment of a tolerance for residues of 1-methoxycarbonyl-1-propen-2-yl dimethyl phosphate.

Also withdrawn, without prejudice, are <u>Fairfield Chemicals'</u> petitions for tolerances for piperonyl butoxide and pyrethrins in or on cheese.

Atlas Powder has asked FDA to set up regulations allowing use of polyoxyethylene (20) sorbitan monooleate and polyoxyethylene (20) sorbitan tristearate as emulsifiers in frozen desserts.

U.S. Rubber has asked FDA to establish tolerances for maleic hydrazide of 15 p.p.m. in raw onions, 50 p.p.m. in raw potatoes, and 160 p.p.m. in potato chips prepared from raw potatoes treated with MH.

American Cyanamid has asked FDA to allow use of Acronize chlortetracycline directly on peeled shrimp.

USDA has cleared a label recommending use of Hercules' toxaphene on land being grazed by meat animals and on the animals themselves.

## MEETINGS

Regional Fertilizer Safety Schools: Cornell University, Ithaca, N. Y., Aug. 12 and 13; National Safety Council Headquarters, Chicago, Ill., Aug. 18 and 19; Atlanta, Ga., Aug. 27 and 28; Fresno, Calif., Nov. 5 and 6; and Houston, Tex., Nov. 12 and 13. Soil Conservation Society of America, Rapid City, S. D., Aug. 26-28.



- Competition with imports and with nitrate of soda seen as reason for new capacity for <u>limed ammonium</u> <u>nitrate</u> (page 459).
- Economists develop simple formula for predicting fertilizer use a year in advance (page 460).
- States have much work to do on food and drug laws to make them accord with federal laws (page 461).

# HOW TO GET NITROGEN SOLUTIONS ON THE PHONE!

**CALL CSC!** You'll get fast, reliable service coast to coast. Plants, branch offices, and storage facilities are strategically located throughout the country. You'll find that Commercial Solvents is an excellent basic source of nitrogen for your mixed fertilizers.

A FULL RANGE of ammonia-ammonium nitrate solutions and ammonia-ammonium nitrate-urea solutions, to meet any requirements. And Hi-D<sup>®</sup> Ammonium Nitrate, in exclusive granular form that assures accurate and even distribution throughout the mix.

CSC NITROGEN

SOLUTIONS



THE CSC OFFICE NEAREST YOU! See what service really means!

Atlanta, Ga. PLaza 8-7202; TWX-AT 38

Chicago, III. Lincoln 9-7121; TWX-CG 2525 **Cincinnati, O.** MAin 1-4254; TWX-CI 161

Cleveland, O. CHerry 1-2693; TWX-CV 407 **Detroit, Mich.** LOrain 7-2414; TWX-DE 837

COMMERCIAL

SOLVENTS

CORP.

Kansas City, Mo. VAlentine 1-6466; TWX-KC 304 **St. Louis, Mo.** Mission 5-3330; TWX-SL 666

Sterlington, La. North 5-4451; TWX-STERLINGTON, LA 8706

Agricultural Chemicals Department COMMERCIAL SOLVENTS CORPORATION 260 Madison Ave., New York 16, N.Y.



456 AGRICULTURAL AND FOOD CHEMISTRY

# NEW LAB FOR USDA

Construction of a new field laboratory for USDA started last month at Delaware, Ohio. The \$350,000 laboratory, to be completed next spring, will house research personnel of the Agricultural Research Service and the Forest Service. Among problems to be studied there: <u>development of improved methods of controlling diseases and insects of</u> <u>ornamentals, shrubs, and forest and shade trees through soil application</u> <u>of systemic chemicals;</u> control of Dutch Elm and other shade-tree diseases; control of root rots; and development of new ornamental species.

#### CLEARINGHOUSE FOR FOREST FERTILIZATION INFORMATION

National Plant Food Institute and the National Joint Committee on Fertilizer Application are cooperating to set up a clearinghouse for information on nutrition and fertilization of southern forests. Information center will receive details of experiments for subsequent distribution to interested persons. To receive periodic releases, those on the mailing list are obligated to submit information on their own work on nutrition and fertilization. First step is getting information on participants' present research, personnel, organization, location, and experimental description. If Southwide program is successful, it will be expanded to include work throughout U. S. and in Canada. To get on the mailing list, write Southeastern Regional Forester, National Plant Food Institute, 190 Hardin Drive, Athens, Ga.

#### VINYL ETHER FILMS

Promising film-forming materials that adhere to metals have been made from soybean and linseed oils by USDA chemists at the Northern Utilization Research and Development Division in Peoria. The vinyl ether films were produced from acetylene and fatty alcohols derived from linseed and soybean oils. The films are said to be flexible, and to resist heat, abrasion, alkalis, acids, alcohols, mineral oil, and benzene.

#### GA MAY SPEED UP FERTILIZER USE

Gibberellic acid causes plants to take up more phosphorus and lose water more rapidly than untreated plants, according to University of Minnesota botanists A. J. Linck and T. W. Sudia. Using radioactive phosphorus, they found that not only do treated plants absorb more phosphorus (after 76 hours) but that it is differently distributed. After 76 hours, treated plants had four times as much phosphorus in upper stems and twice as much in new leaves as untreated ones. They say it will take many more experiments to tell whether gibberellic acid can be used to speed up fertilizer use.

- <u>Countercurrent drying</u> gives better results in continuous, mixed-fertilizer granulation unit (page 474).
- Radioactive tracer techniques used to study Co-Ral's pathway through bodies of steers (page 483).
- Generation of ammonia in packages of foodstuffs controls common molds (pages 489 and 496).
- Tissue residues of stilbestrol in steers fed DES studied by tritium labeling (page 509).

