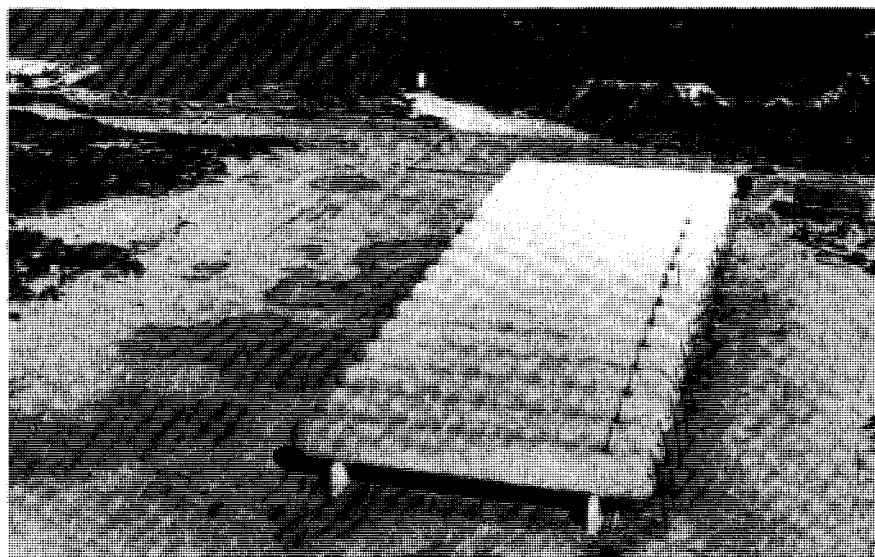


# News of the Month . . .

## INDUSTRY



First barge load of anhydrous is unloaded at Mid-South's new terminal at Harlingen, Tex. The specially built barge can be seen along the dock in extreme left

### Mid-South Chemical Completes Texas Ammonia Terminal

One of the largest anhydrous ammonia storage terminals in the United States has been placed in operation by Mid-South Chemical Corp. at Harlingen, Tex.

The terminal includes a battery of sixteen 30,000 gallon tanks with unloading facilities for barges operating on the Intercoastal Waterway. Ellis T. Woolfolk, president of Mid-South, said it will be the distribution center for a network of smaller distributing stations the company will establish immediately in the Lower Rio Grande Valley. The terminal also has rail and truck loading facilities for moving the high analysis nitrogen fertilizer to other bulk plants and farms.

Ammonia is brought to the terminal in specially built barges, each having a capacity of more than 400,000 gallons. The first barge to reach the new terminal unloaded a capacity cargo on Sept. 17. The unloading operation required about seven hours.

The new terminal is situated at the Port of Harlingen in the Arroyo Colorado Navigation District. It was built under contract by Edward S. Nelson Ltd. of Clarksdale, Miss., a firm specializing in anhydrous ammonia bulk storage plants.

This is the second in a series of waterway terminals being built by Mid-South. The first was placed in operation at Memphis last Spring. Other

terminals and distribution centers are planned on the Gulf Coast and the Mississippi River in the Upper Midwest. Source of the ammonia will be a new plant to be constructed at Lake Charles, La., which will receive its raw materials from the oil refineries of Cities Service Co. and Continental Oil Co. at Lake Charles. These two companies recently acquired an interest in Mid-South.

### Davison to Build Liquid Fertilizer Plant; Plans Extensive Tests

Davison Chemical Co. Division of W. R. Grace & Co., has announced it will build a plant for manufacture of liquid fertilizers on an eight-acre site acquired in Wakarusa, Ind., 18 miles southeast of South Bend.

The plant and its associated marketing activities are projected as a developmental operation on a comparatively large scale, since the plant will have 15 tons an hour capacity and the area to be served takes in parts of both Indiana and Michigan.

The operation's main purpose will be to serve as the focal point of a program to expand the market potentialities of liquid fertilizer—this to include study of needed analyses, better application methods and cooperation with dealers for more effective sales operation. The Wakarusa location was chosen because the area comprises all four main types of farming—grain, vegetable, fruit and

berry, and livestock, and is a large consumer of fertilizer.

When the plant goes into operation, about March 1956, it will turn out fertilizer in analyses of 9-9-9, 5-10-10, and 10-5-5. In addition to these liquid products, a warehouse stock of granulated fertilizer in bulk and in bags, supplied from other Davison plants, will be maintained.

Distribution from the plant will be through Davison dealers already established in the area, and additional dealers especially qualified to participate in the new type of business. Liquid fertilizers are usually custom spread by the dealer.

Davison believes that there will be significant expansion of the liquid fertilizer market. The proposed new plant is expected to furnish information on the directions which this expansion will take.

A course of research to be pursued vigorously will be for means of formulating high analysis fertilizers which will not salt out. This would give the liquid fertilizers an important economic impetus, because of reduction in cost of handling and transporting water, Davison points out.

### Hooker, Niagara Alkali Planning Merger

Directors of Niagara Alkali and Hooker Electrochemical have announced plans to merge the two companies if stockholders approve. Under terms of the proposal, Hooker will be the continuing company, and consolidation will be effected by issuing 1.6 shares of Hooker common for each outstanding share of Niagara. Stockholders of both companies will vote on the proposal at special meetings Nov. 29.

Hooker's quarterly report shows earnings of \$6,109,400 or \$1.18 a share for the nine months ended Aug. 31. For the first nine months of 1954, earnings were \$4,670,900 or 89 cents a share. Sales for the 1955 period were \$58,246,200, an increase of 23.8% over sales of \$47,021,600 reported for the 1954 period. These earnings include those of Durez Plastics & Chemicals, which was merged into Hooker on April 29.

### Carlile Building Liquid Fertilizer Plants for Two Iowa Firms

Two Iowa fertilizer manufacturers have contracted with J. C. Carlile Corp. of Denver for liquid fertilizer production facilities. Continental Fertilizer Co., at Nevada, Iowa, is installing a complete and continuous automatic-control neutral solution fertilizer plant. Expected to be in operation this fall, the Conti-

mental facilities are capable of producing 10 to 15 tons of ammonium phosphate on complete liquid formulated fertilizers an hour.

The other Iowa liquid fertilizer plant is that of Tiger Chemical Co. of Onawa, which is to be modified for increased capacity and efficiency. Tiger Chemical is adding an aqua ammonia converter, an ammonium phosphate cooker, and other equipment.

### Additional Endrin Capacity

Completion of additional manufacturing facilities for endrin have been announced by Shell Chemical. The facilities for endrin, used for controlling cotton and tobacco insects, are located at Shell's Denver plant.

### CIL and Chipman Join Pesticide Operations in Canada

Canadian Industries (1954) Ltd. and Chipman Chemical Ltd. have announced plans to amalgamate their pesticides operations in Canada. Each company will own 50% of the new company, Chipman Ltd.

Headquarters of the new company will be in Montreal and the four plants will be at: Buckingham, Que., Hamilton, Ont., Winnipeg, Man., and Moose Jaw, Sask.

Directors of the new company will be: Leonard Hynes, vice president of CIL (1954); V. B. Lillie, general manager, and J. H. D. Ross, assistant general manager of CIL's agricultural chemicals division; W. H. Moyer, president of Chipman Chemical Co., Inc.; J. D. Ruttan, president, Chipman Chemicals, Ltd.; and C. T. Ward, joint managing director of Plant Protection, Ltd.

Officers proposed for the new company are: J. D. Ruttan, president; E. L. Hamilton, treasurer; D. W. Shales, secretary; and J. H. D. Ross, general manager.

Behind Chipman Ltd. will be the research resources of Imperial Chemical Industries Ltd. and Plant Protection, Ltd., both of Great Britain, and of Chipman Chemical Co., of the U. S.

### Minneapolis Fertilizer Plant Expands and Goes Granular

Land O'Lakes Creameries, Inc., has started a \$350,000 expansion of the Minneapolis fertilizer plant and plans to switch its entire production from a powdery type fertilizer to a granular form. The expansion will increase the plant capacity from 40,000 tons a year to 75,000 tons a year.

According to C. A. Johnson, general manager of the agricultural services division, this will increase the retail sales value of its fertilizer output from just under \$3 million annually to \$5.5 million.

The company markets, feed, seed, and fertilizer through 450 cooperative creameries in Minnesota and Wisconsin. Local Co-ops in turn own Land O'Lakes.

### General Mills Organizes New Soybean Division

General Mills has announced the establishment of its soybean operations in a separate division of the company. Until Oct. 1, they were part of the company's chemical division.

General manager of the new soybean division is Sewall Andrews, who has been general manager of the chemical division for the past two and half years. William D. Mitchell, who has been associated with Pennsylvania Salt Mfg. Co. for the past 20 years, has joined General Mills as general manager of the chemical division. Most recently he was vice president in charge of operations for Pennsalt. Fatty acids and specialty chemical products will continue as part of the chemical division.

### Northwest Nitro-Chemicals Announces Sales Agents

Harrisons and Crosfield (Canada) Ltd., has been named exclusive sales agents for distribution of chemical fertilizers produced by Northwest Nitro-Chemicals, Ltd., it is announced by J. Albert Woods, president. The company's \$22 million plant, now under construction at Medicine Hat, Alta., is scheduled for completion in the fall of 1956.

Products for distribution will include ammonium nitrate and two grades of

ammonium phosphate fertilizer, with total annual sales volume expected to be in excess of \$10 million. Primary distribution will be in the agricultural areas of the prairie provinces of Canada and in the northwestern U. S.

Northwest Nitro-Chemicals, Ltd., is controlled by Commercial Solvents Corp. and the New British Dominion Oil Co., Ltd. The Company will be operated under a long term management contract with Commercial Solvents.

Ford, Bacon & Davis, Inc., is in charge of plant construction. Financing of the project was recently completed through Eastman, Dillon & Co., of New York.

### Simplot Buys Nebraska Fertilizer Plant from Phillips

J. R. Simplot has announced its purchase of the Platt Valley Fertilizer Co. plant at Scottsbluff, Neb. The plant was purchased from the Curry Chemical Division of Phillips Petroleum. W. R. Kilbourne, vice president of Simplot and general manager of the fertilizer division, asserted the policies and personnel of the plant will remain the same. However, C. E. Brissenden, manager of Simplot Soilbuilders at Rupert, Idaho, has been named manager of the new operation.

### IM&C Strike Ends in Florida

Negotiations have been completed for settlement of the four-month-old Florida phosphate strike by the International Chemical Workers Union against International Minerals & Chemical Corp.

### Agriculture Served by Barges on Mississippi and Gulf

"Through-service" barges that can be operated on both the Mississippi River and the Gulf of Mexico are delivering grain for animal feed and sewage sludge for enriching sandy soil to Florida growers and returning phosphate rock and triple super to midwestern chemical plants. Barges, which eliminate transfer of cargo from river-going to ocean-going vessels, were developed by Dravo Corp. and are operated by A. L. Mechling Barge Lines of Joliet, Ill. Each barge carries 1350 tons



Contracts were settled on the basis of previous agreements—without loss of certain management functions for efficient plant operation—which the union sought to alter. All nine of the struck companies in the area have settled their strikes.

### Brea Shipping Prilled Ammonium Nitrate

First production of ammonium nitrate from its new prilling tower is announced by Brea Chemicals, Inc. The plant is capable of producing 50,000 tons of ammonium nitrate a year.

Brea claims several firsts with its new facilities: first prilled ammonium nitrate produced in the West for western growers; and the tallest all-aluminum process structure in the world. The prilling tower is 200 feet high and 30 feet square.

In addition to the prilling tower, new facilities at the Brea plant include four steel and aluminum warehouses in the hills near the plant. Each warehouse is 320 feet long and 80 feet wide, has covered docks, and is equipped with an automatic zoned sprinkler system. The warehouses will hold a total of 20 million pounds of prilled ammonium nitrate or a quarter of a million 20-pound bags.

Brea's new plant cost more than \$2 million, was engineered by Chemical & Industrial Corp., and was built by Macco Corp.

### Armour and Swift Settle Patent Suit Out of Court

Armour and Swift have settled a patent infringement suit between the two out of court. The suit, filed by Armour in September 1954, charged Swift had infringed upon Armour's patent covering modified lard. Under terms of the settlement, Swift purchased all Armour patent rights in the field of modified lard for \$250,000 in cash. In addition the contract between the two provides that Swift shall license other processors to use Armour's patents "for reasonable terms" and that Armour shall be paid half of the royalties. Armour receives a royalty-free license to use patents sold to Swift and the Swift patents pertaining to modified lard.

### Rohm & Haas Charges Patent Infringement on Fungicide

A patent infringement suit was filed Sept. 26 by Rohm & Haas Co. against Chemical Insecticide Corp. and United States Fungi, Inc., both of Brooklyn, and Joseph Lamberta, distributor of agricultural chemicals and agent for the two companies in Smyrna, Del.

The suit, filed in the U. S. District Court at Wilmington, Del., charges in-

fringement of U. S. Reissue Patent 23,742 under which the Rohm & Haas sells its Dithane brand fungicide.

The suit charges the three defendants with direct infringement, with actively inducing others to infringe, and with contributory infringement through its sale of salts of ethylene bisdithiocarbamic acid knowing they have no commercial use outside the patent claims.

This action follows the filing by Rohm & Haas several months ago of infringement suits on the same patent against E-Z Flo Chemical Co. of Lansing, Mich., and its affiliate, Diamond Fertilizer Co. of Sandusky, Ohio, and also against Roberts Chemicals, Inc. of Nitro, W. Va.

### Volk Radiochemical Organized in Chicago

Murray E. Volk has announced organization of Volk Radiochemical Co. to make and supply compounds tagged with radioactive carbon, sulfur, and phosphorus.

Offices of the new firm will be at 5412 North Clark St., Chicago 40, Ill. Dr. Volk was formerly associated with Nuclear-Chicago. He says the firm will also offer such services as performance of special chemical and biological syntheses, consultation on application of radiochemical techniques to solution of research problems, and health physics instrumentation and calibration.

## RESEARCH

### Inorganic Sulfates Possible Additives for Poultry Feeds

Simple inorganic sulfate compounds may become poultry feed additives, according to USDA research which indicates that such compounds can replace to some extent the sulfur-containing amino acids' cystine and methionine. Using radioactively tagged sulfur compounds, USDA scientists learned that sulfate is not excreted, as it has been believed, but is used in the body for manufacturing cystine and taurine, the latter a compound whose function is not yet understood. They also found that large amounts of sulfate are incorporated unchanged into the tissues of embryos and young chickens.

Tracer amounts of methionine and cystine, labeled with radioactive sulfur, were injected into eggs. Analysis of the hatched chick showed that large amounts of the methionine had been converted to cystine, and some of it to taurine or sulfate. Some cystine was also converted to taurine and sulfate. The sulfate thus produced is evidently used to synthesize chondroitin sulfate, a cartilage constituent.

### USCA Starts Grain Storage Research at New Illinois Site

USDA has set up a research project at Watseka, Ill., on the most effective and

Injecting amino acids tagged with radioactive sulfate into laying hens yields information which USDA scientists hope will lead to more efficient feed utilization

