Business Newsletter...

WESTERN AMMONIA

Southwestern Agrochemical has virtually completed financing plans for a \$4-million, 21,000-ton-per-year anhydrous ammonia plant at Chandler, Ariz. Company is expected to decide date of construction start-up soon. This plant, along with others being built or planned, would bring ammonia capacity in the 11 western states up to nearly 740,000 tons a year. Industry estimates place current ammonia demand in those states at around 300,000 tons a year.

UREA EXPANSIONS

Sur Oil and Olin Mathieson have formed a joint firm to produce urea. It will be called Sun-Olin Chemical Co. President is James I. Harper of Sun. S. S. Johnson of Olin Mathieson is vice president.

Hercules has started urea production at Hercules, Calif. Plant can produce 20,000 tons a year. Fertilizer is expected to take 75% of the output, with most of the 75% going into UN-32, a liquid fertilizer containing 35% urea and 45% ammonium nitrate. Some will be available for feed use.

OTHER FERTILIZER EXPANSIONS

Calspray will build a \$4.6-million fertilizer plant at Kennewick,

Wash., to tap the lush Northwest market. Products will be ammonium

nitrate, ammonium nitrate solutions, and complex nitric phosphates.

The ammonia will come from Phillips Pacific Chemical's plant at Finley,

Wash. Completion is scheduled for the end of 1959.

Bunker Hill Co. of San Francisco will build a \$10-million fertilizer plant—capable of producing 200,000 tons a year—in the Northwest. Plant site has not yet been chosen. Fertilizer plant will use sulfuric acid produced as a by-product at the company's lead and zinc reduction plants at Kellogg, Idaho. There was no indication of what fertilizer products would be produced.

Central Farmers has started mining and stockpiling phosphate ore. The ore travels on a one-mile belt conveyor, which delivers 400 tons an hour to the stockpile. Between 250,000 and 300,000 tons of rock phosphate will be stored for processing into concentrated fertilizer in the plant scheduled to start production early next year.

American Agricultural Chemical Co. will buy substantially all the physical assets of Knoxville Fertilizer Co., which has plants at Knoxville, Nashville, and Johnson City, Tenn., and London, Ky. They are to be operated as the Knoxville Fertilizer Division.

GRACE RESEARCH CENTER

W. R. Grace unveiled the first two buildings of its new \$5-million chemical research center in Maryland, near Washington, D. C., late last month. Eventually to be four times its present size, it now has 96,000 sq. ft. of floor space, houses 250 scientists and technicians, and has 150 acres of farmland surrounding it. Located there are the agricultural research laboratory, which includes Davison Chemical research, and new product development laboratories. The first concentrates on fertilizer and pesticide research and includes a fertilizer pilot plant, experimental plots, and a light chamber. Scientists there are now engaged in evaluating a new phosphate insecticide, which, along with its silica aerogel (see page 805), may put Davison firmly into pesticides.

Business Newsletter...

FEDERAL CONTROL OF PLANT REGULATORS, NEMATOCIDES

National Agricultural Chemicals Association says it is preparing legislation to bring defoliants, desiccants, and plant regulators within the scope of the Federal Insecticide, Fungicide, and Rodenticide Act. NAC also intends to take steps to bring nematocides within the jurisdiction of the act. Such legislation would put those products under the Miller Amendment also. Making this announcement at the recent meeting of the American Pesticide Control Officials, Lea Hitchner, NAC's executive secretary, said: "While we are fully conscious of states' rights and the fact that there should not be domination in the regulatory field by the Federal Government, we believe that in this instance the states should not take action until these matters have been resolved and a Federal pattern established."

OLD CHEMICAL PRESSED INTO PEST CONTROL BATTLE

Entomologists at Kansas State expect a revolution in the grain fumigation business. The cause is chloroform, which was recently approved by the Food and Drug Administration for fumigant use. These entomologists say chloroform will be used with carbon disulfide in an 80-20 ratio in much the same manner that carbon tet is now used. They say it is probable that use of chloroform may permit the use of even more carbon disulfide—25 to 30%, for instance. The Kansas State entomologists worked jointly with Frontier Chemical.

WITCHWEED WAR

Carolina farmers, their state agricultural agencies, and USDA, armed with \$3 million from Congress, are getting set to wage all-out war on witchweed, the pest that attacks corn and several other crops. Eradication program, to begin next spring, will involve 95,000 acres.

DICALCIUM PHOSPHATE EXPANSIONS

Hooker Chemical is "substantially" expanding dicalcium phosphate production at Columbia, Tenn., where two electric furnaces produce phosphorus from rock phosphate. The enlarged feed supplement operations are expected to be ready by April 1.

Krebs & Co. will build a dicalcium phosphate plant in Belgium, using the process of the Israeli firm Fertilizers & Chemicals, Ltd.

FDA RULING

Food and Drug Administration has officially notified farmers, feed merchants, and feed manufacturers that apple pomace containing 7 p.p.m. DDT is unsuitable for use in animal feeding. It also warned that apple pomace containing any amount of DDT, whether 7 p.p.m. or less, cannot be used as feed for dairy animals.

BIG PLANS AT TVA

TVA's Fertilizer-Munitions Development Center will press for new ways to increase the efficiency and operating economy of phosphate manufacture during the fiscal year that ends next June, it has said. Among the directions it will take is work on economical recovery of by-product fluorine compounds. Some of the others: Development of methods to increase phosphorus recovery from phosphorus sludge and waste liquors; production and further development of superphosphoric acid; changes in facilities to produce a higher analysis (54%) superphosphate with the new acid; and initial production of a high analysis product

from Florida leached zone phosphate. In the nitrate plant, TVA will work on a new process for recovering hydrogen and nitrogen from waste gases.

PROTECTION AGAINST RICE WEEVIL

Malathion, methoxychlor, and synergized pyrethrum are being used in large scale trials for a means to control rice weevil in stored corn. In earlier tests, ryania and lindane were tried, but they have been discarded from the large-scale tests.

JAPANESE BEETLE CONTROL

Ten thousand acres in southern Cook County, Ill., are to be sprayed with granular heptachlor in an effort to control Japanese beetles. Authorities are particularly concerned about railroad yards in that vicinity, for the beetle larvae could ride the rails to the western states, heretofore unmolested by the pest. Spraying will take place sometime before early spring.

INTERESTING FACTS AND FIGURES

Today's farm worker provides food and fiber for himself and 23 others. said Secretary of Agriculture Benson in a recent campaign speech. Only a few years ago the figure was 13. U. S. farmers constitute less than 1% of the world's population, but they produce 20% of the world's red meat and nearly 33% of the world's milk.

MEETINGS

National Fertilizer Solutions Association, Netherland-Hilton Hotel, Cincinnati, Nov. 16-18.

<u>California Fertilizer Association</u>, Ambassador Hotel, Los Angeles, Nov. 8-11.

National Agricultural Chemicals Association and Commercial Chemical Development Association (joint meeting on new chemicals for agriculture) Lord Baltimore Hotel, Baltimore, Nov. 20 and 21.

Northwest Agricultural Chemicals Industry Conference, Benson Hotel, Portland, Ore., Jan. 21 and 22.

<u>Iowa Fertilizer Short Courses</u>, Iowa State College, Ames. For sales representatives and technical people—Jan. 7; for fertilizer dealers—Jan. 8; for administrative people in the fertilizer industry—date to be announced.

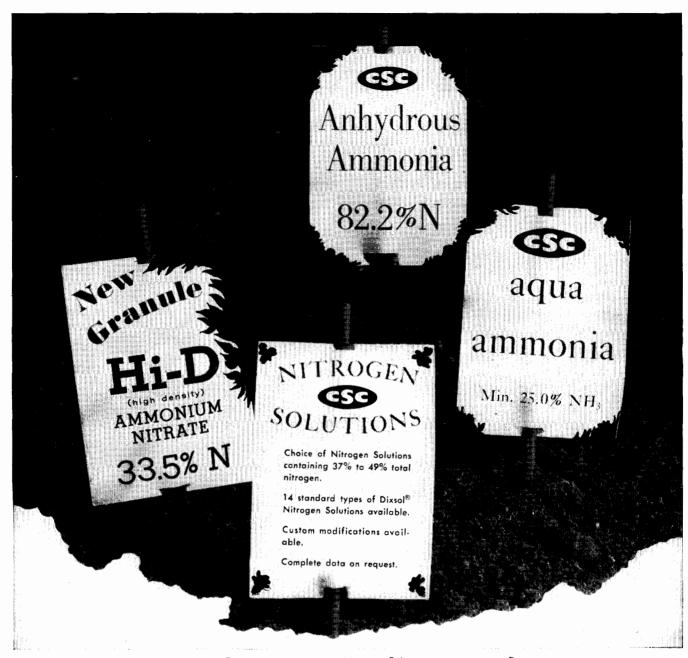
Fertilizer Industry Roundtable, Mayflower Hotel, Washington, D. C., Nov. 5-7.

Entomological Society of America, Hotel Utah, Salt Lake City, Dec. 1-4.

North Central Weed Control Conference, Netherland Hilton Hotel,
Cincinnati, Ohio, Dec. 3 and 4.



- Silica aerogels hold exceptional promise as insecticides. More research will prove or disprove likelihood of commercial success (page 805).
- Preneutralization of ammonia with sulfuric acid cuts costs, eliminates need for dry materials in manufacture of nonphosphate fertilizers (page 806).
- Pesticide manufacturers protesting "intolerable" tolerance fees, hope legislation in next Congress will eliminate fees entirely (page 808).
- Sewage sludge use as fertilizer tops 200,000 pounds a year; not a cent of profit in any of it (page 810).



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Research Newsletter...

USDA RESEARCH BROADENING

During the middle of October, farmers may have had their eyes on the election campaign, but at USDA in Washington, eyes were on research. The Department announced it had started a research program abroad with foreign currencies accrued from sale of surplus farm products. Areas for research abroad are in utilization of farm products and in control of foreign insects and diseases as a hedge against possible attacks on U. S. crops and livestock. Forestry work will also be included. P. L. 480 funds amounting to nearly \$6.7 million have already been allotted for utilization work in the U. K., Finland, Italy, and Israel. Another \$3.9 million has been appropriated for research in farm marketing and forestry in Indonesia, Pakistan, Finland, Yugoslavia, Poland, India, Israel, and Chile. Guido E. Hilbert, assistant administrator of Agricultural Research Service, will supervise the work. Walter M. Scott, now assistant to the ARS administrator, will establish an overseas office to administer the program in Europe and the Middle East.

Byron Shaw, ARS administrator, told the Agricultural Research Institute meeting in Washington that there are now 13 pioneering laboratories in USDA, all working on basic research, which now accounts for 22% of the ARS budget. Organized about a year ago (Ag and Food, January 1958, page 12), these labs are designed around top scientists, who are freed of all administrative work. Shaw said ARS is looking forward to the day when 50% of its budget will go to basic research, is considering addition of still more pioneering laboratories. The aim is to develop as many as required to provide the scientific knowledge needed. No limit has been set on the number or the funds, he emphasized.

MERCK TESTING MICROBIAL INSECTICIDE

Merck is making big plans to field-test its microbial insecticide next year. Samples for testing have gone out to 19 agricultural colleges and universities around the country. Key to the microbial insecticide, produced by fermentation processes, is Bacillus thuringiensis. Merck cites as advantages of this microbial insecticide: it is harmless to all forms of life except insects; it does not leave residues harmful to man or animals; it does not harm the crops themselves; it does not mutate into organisms pathogenic for man, livestock, or plants; it is specific only for damaging pests, and will not directly harm such beneficial insects as bees, insect parasites, and predators; and there are no known cases of insect resistance build-up to these organisms.

- Granular nitric phosphates can be produced with the TVA ammoniator on a smaller investment and with more versatility (page 822).
- Apparently low organic nitrogen determinations in specialty fertilizers containing urea can be avoided by use of a <u>low temperature procedure</u> for determining ammoniacal nitrogen (page 833).
- An acidic component, probably an organic phosphate, of tomato plants susceptible to Fusarium, seems to be important in the biochemistry of disease

resistance (page 838).

• Several esters of bromoacetic acid show promise as nematocides (page 843).