## **Business Newsletter...**

#### FERTILIZER EXPANSIONS

Sun0lin will build its urea plant at North Claymont, Del. It is to have a capacity for 73,000 tons of urea prills a year. It will use the Fauser-Montecatini process, the fourth in the U.S. to do so. M.W. Kellog will do the engineering.

Mississippi Chemical Corp. says it will build a \$1.5-million, 100-tons-per-day urea plant at Yazoo City, Miss. Construction will take about a year.

U. S. Phosphoric Products Division of Tennessee Corp. will put a diammonium phosphate plant on stream at East Tampa, Fla.; about April 1. Plant will turn out an undisclosed amount of a modified DAP, which will be called Di-Mon. Di-Mon's analysis will be 18-46-0. (True DAP is 21-53-0.) Wet process phosphoric acid will be the raw material.

Bunker Hill Co. has acquired a 1200-acre phosphate deposit near Elliston, Mont. It will presumably be used to supply the \$10-million triple super plant Bunker Hill will build, probably at Kennewick, Wash.

Apache Powder Co.'s "baby" ammonia plant (30-tons-per-day) at Curtiss, Ariz., has generated numerous inquiries from other firms in locations where freight costs and other factors might make such a plant advantageous. Girdler built the plant.

Iran will build a \$30-million nitrogen fertilizer plant near Shiraz. Plans call for a capacity of 100 metric tons a day. Natural gas is to come from Gasharan via a 140-mile pipeline. Montecatini has been retained as construction advisor to the Iranian government, and Montecatini's ammonia process will be used.

Dixie Fertilizer Co. has been organized in Meridian, Miss., to manufacture fertilizer from activated sludge produced by the city's sewage treatment plant. Activated sludge will form about 30% of the raw material. Proposed plant of Dixie Fertilizer will have capacity for 120,000 tons of product annually.

Davison will spend \$500,000 to build granulation facilities at its fertilizer plant at Ft. Pierce, Fla. Plant there was built in 1953, and has been turning out conventional fertilizers up to its operating capacity, company says.

### NEW MARKETING TACTICS

Monsanto is doubling its agricultural chemicals sales staff and increasing the number of technical sales specialists to four. The enlarged staff will handle bulk sales of agricultural chemicals to formulators as well as sales of Monsanto's packaged herbicides and insecticides. More intense coverage through its national distribution set—up is the aim of these changes. Five new sales areas have been established: western area with San Francisco headquarters; south central area with headquarters at Luling, La.; north central area with headquarters at Orlando; and northeast area with headquarters in the New York City vicinity.

Spencer is buying space in Illinois and Indiana farm papers to push the idea of complete production loans for farmers. Ads will feature prominent agricultural bankers, chairmen of the agricultural committees of the two states' bankers' associations. Ads will attempt to sell the desirability of arranging loans for all farm production necessities—fertilizer, seed, fuel, and the like. Spencer terms its campaign experimental, will survey banks in the two states to determine how farmers respond.

International Minerals has launched a series of regional training meetings for 350 salesmen representing 156 fertilizer companies. This program is an extension of IMC's "full orbit" customer service. In addition to the sales training, IMC is offering to its fertilizer customers two new booklets—one on credit and the other on insurance and safety programs.

A lawn and garden department has been added to IMC's plant food division. The new department will promote Thrive (a lawn fertilizer that has the slow-release feature), Fertilis, and Mello Green. Jack G. Eisinger, formerly with the hardware division of Black & Decker, will be sales manager of the new department, which will operate independently of other departments in the division.

#### PESTICIDES ADVANCE

Heyden Newport has bought rights to make and sell Strobane, a terpene-based insecticide, from B. F. Goodrich Chemical. Strobane is already on the market for home use, but Heyden Newport plans to introduce it into agriculture after field studies are completed this year. "Its promising performance, combined with our basic position in terpene chemicals, points to an important role for Strobane in our expanding agricultural chemical program," says S. Askin, president of Heyden Newport.

Geigy is introducing a new triazine herbicide, Atrazine 50W, for nonselective weed control in noncropped land. It can be used either before or after emergence and may be applied from late spring through early summer. It is intended as a companion for Simazine 50W, which can be used from late fall to early spring. Atrazine may have a potential for weed control on certain agricultural crops such as corn, although it is not yet recommended for such uses.

Stauffer Chemical will handle all marketing of Thuricide, the biological insecticide being produced by Bioferm Corp. (see Ag and Food, January, page 3). Stauffer's technical staff will cooperate with Bioferm on developing the new product.

Sevin is ready to go commercial this year for use on cotton. Carbide will sell the carbamate insecticide to formulators as a 50% dust base. Formulators will dilute the dusts to about 5 or 10% actual Sevin. Liquid formulations are now being tested, and will probably be available for sprays in the future. Carbide is stressing Sevin's action against all major cotton pests, including boll weevil, bollworm, pink bollworm, aphid, leafworm, lygus bugs, and leaf perforators. Suggested dosage is one to two pounds of active ingredient per acre every five to seven days.

## DOW POLYETHYLENE FOR THE FARM

Dow Chemical has started to turn out polyethylene film for such agricultural uses as mulching, silo covers, temporary greenhouses, and the like. Extruders, Inc., a Dow subsidiary in California, will produce the film and distribute it initially in the ll western states, with national distribution to follow as soon as possible.

#### FDA AND FOOD COLORS

Food and Drug Administration says it will remove four more food colors from permitted list within the next 90 days. The colors to be banned are all yellows. FDA says it will support legislation on food colors, lists what it considers to be proper provisions of a new law: all color additives to be included—not just coal-tar colors; no

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blanket grandfather clause; pretesting for safety; tolerances where necessary; establishment of a permitted list of colors; certification of purity and safety of individual batches where necessary; prohibition of the use of color when such use would promote deception of the consumer.

#### THE ARAMITE CASE

A zero tolerance has been set for residues of the miticide Aramite on edible fruits and vegetables. This was the recommendation of the expert advisory committee, which considered new toxicological data obtained by the manufacturer—U. S. Rubber—at a cost of over half a million dollars. The company says new ruling does not ban Aramite from the market, but it does mean that Aramite can be used only in early season applications. It also may be used on cotton and ornamental shrubs.

#### NEW NAMES FOR DU PONT HERBICIDES

Du Pont has two new trademarks for neburon and fenuron, substituted urea herbicides. It has also changed the use of the trademarks Karmex and Telvar for diuron and monuron. "Kloben" will identify neburon weed killers (formerly known as Karmex N), and "Dybar" will be used for fenuron weed and brush killers (formerly known as Karmex FP). "Telvar" will now identify only products based on monuron, and "Karmex" will identify only products based on diuron. Until now, "Karmex" distinguished all agricultural herbicide formulations of the substituted ureas, whereas "Telvar" was used to identify industrial formulations.

## ODDS AND ENDS

I. G. Chemical has denied Fair Trade Commission charges that it misrepresents the quality of Green Plasma, its chemical preparation for lawns (Ag and Food, December 1958, page 872).

Manufacturing Chemists' Association has moved to 1825 Connecticut Ave., N.W., Washington 9, D. C. The new telephone number is HUdson 3-6126.

The proposed federal budget for fiscal 1960 includes \$13,210,000 for FDA, an increase of \$855,000 over the expected expenditure of \$12,355,-000 for fiscal 1959.

#### **MEETINGS**

Joint Meeting of Midwestern Agronomists and Fertilizer Representatives, Edgewater Beach Hotel, Chicago, Feb. 12-13.

Texas Agricultural Chemicals Conference, Texas Technological College, Lubbock, Feb. 10-12.



- Fish farming with fertilizer sets up chain reaction that can result in quadrupling of annual catch (page 75).
- Some nematocides and fumigants control symphilids, but they repopulate an area quickly (page 76).
- Preliminary returns indicate drop in fertilizer tonnage during 1957-58, with the South accounting for most of the loss (page 77).
- Bulging harvests of recent years have shoved possibilities of nutriculture into the background (page 79).

## Research Newsletter...

### NEW LEADS IN HERBICIDE RESEARCH

USDA scientists have found a new range of herbicides as a result of some basic research on the mode of action of dalapon. Before the Northeastern Weed Control Conference, James L. Hilton of USDA said the recent discovery that dalapon interferes with the formation of pantothenic acid in the growing plant led to the new herbicides now being tested. These herbicides consist of part of the pantoate molecule, which is one of two precursors of pantothenic acid. Chlorine was used to replace the hydroxyl groups in the pantoate molecule, the chlorine being used to block the enzymatic action which synthesizes pantothenic acid from pantoate and beta-alanine. Hilton and his coworkers believe they may be able to develop herbicides with greater specificity and efficiency. This also may lead to other herbicides that act upon other enzyme systems in the plant.

#### ON THE TRAIL OF ORGANOPHOSPHATE ANTIDOTES

Effectiveness of atropine as an antidote in cases of organophosphate poisoning can be enhanced with a new chemical developed at the Army Chemical Center, Edgewood, Md. Called TMB-4, it is an oxime that shows some superiority over the previously announced 2-PAM. The new compound reactivates cholinesterase, while atropine blocks the effects of excess acetylcholine. William H. Summerson of the Army Chemical Center observes that neither 2-PAM nor TMB-4 has shown itself sufficiently potent in small doses or sufficiently free from toxic or other undesirable effects to warrant unequivocal adoption as an adjunct to atropine in the treatment of nerve gas poisoning.

## NEW APPROACH TO FERTILIZER RESEARCH

Purdue Research Foundation has a grant from Texas Co. to pursue a new approach to fertilizer research. The agronomy department will suggest desirable new features for a fertilizer, the chemical engineering department will develop a fertilizer conforming to agronomy's specifications, the biochemists will analyze the product for its nutrient content, and agronomists will get it back to test performance.

## LIQUID FERTILIZERS FROM WET PROCESS PHOSPHORIC

Liquid fertilizers can be made from wet process phosphoric acid, says Robert C. Miller of Webster Groves, Mo. Key to the process, he says, is urea, which should furnish at least half of the total nitrogen. Ammonia furnishes the remainder of the nitrogen, according to his plan. Urea forms complexes of iron and aluminum phosphates that are stable for several days, and a colloidal-type solution is maintained during this period. If longer storage is necessary, he says, a small amount of a base-type peptizing agent will prevent the start of chain coagulation.



- Isolation procedure makes it possible to determine residues of Tedion by <u>infrared spectrophotometer</u> (page 104).
- A species of <u>Tephrosia</u> that can be cultivated in U.S. may give new source of rotenone (page 106).
- Three mechanisms are responsible for instability of insecticide-fertilizer mixtures (page 107).
- Amide forms of chlorine-substituted phenoxyacetic plant regulators were more effective in retarding mature fruit abscission than corresponding acids (page 122).