

Business Newsletter . . .

NEW FACILITIES FOR PESTICIDES AND FERTILIZERS

Monsanto has begun operation of its new plant at Anniston, Ala., for production of Niran (parathion) and methyl parathion. Claimed to be the world's largest plant for these compounds, it replaces Monsanto's Nitro, W. Va., unit, which was destroyed by explosion and fire last April. Catalytic Construction Co. completed the new installation in just over six months from start of initial design. Plant features maximum safety protection for operators, with multiple control instrumentation on each processing step, interlocking safety controls, and isolation cells for reactors. Anniston location brings production to the doorstep of the Cotton South, where competition among cotton insecticides—particularly between chlorinated hydrocarbons and organophosphates for boll weevil control—is becoming increasingly fierce.

U. S. Industrial Chemicals is now operating its new facilities for sulfuric acid decomposition and purification at its Sunflower, Kans., plant. Company's Midwest customers will now have a profitable way to dispose of spent acid. Designed capacity of facility is 70 tons of alkylation spent acid a day.

Michigan Chemical has completed shakedown of its new ethylene dibromide plant at El Dorado, Ark. Company says it has eliminated impurities that cause off-odors in grain fumigated with EDB.

Dimethylamine solution facilities at Cleveland, Ohio, will improve Du Pont's service to producers of pesticides in that area. It is widely used as source of organic nitrogen in pesticide production.

NITROGEN SOLUTIONS TECHNOLOGY

To expand its service to manufacturers of both solid and liquid mixed fertilizers, Sohio Chemical has compiled two new handbooks on nitrogen solutions. The first covers use of nitrogen solutions for dry fertilizer manufacture. The second, introduced at a Sohio-sponsored symposium in mid-January, concentrates on problems in producing liquid mixes. Both draw heavily on results of laboratory and field research conducted by Sohio during the past two years, and offer practical assistance on such matters as saturation and salting-out temperatures, proper handling, and safety measures. At its January conference in Lima, Ohio, attended by representatives of about 150 fertilizer manufacturers, the company also introduced its Sohio Solution 17. New formulation permits production of complete liquid fertilizers having higher nitrogen content, but with lower saturation temperatures—by as much as 14° F.

Spencer Chemical has come up with a new line of nitrogen solutions, tradenamed Spensol Green, which it says will reduce by 40% corrosion caused by ammoniating solutions. Key is a new inhibitor (composition not revealed), found to be most effective of 150 tested—including the one previously used in Spensol solutions. Spencer expects its new solutions to help prolong life of conventional steel tanks, dip pipes, and spargers at fertilizer mixing plants. New inhibitor is also going into solutions for direct application.

MORE FREIGHT RATE INCREASES

National Plant Food Institute is again fighting proposed freight rate increase by the railroads. Proposal is to increase rate for fertilizers by 20 cents a ton and 10 cents a ton for phosphate rock,

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regardless of distance. Request is from all Class I railroads except those in the southern territory. Unless the Interstate Commerce Commission suspends the increases, they will become effective Feb. 1. USDA has asked ICC to postpone for 30 days the dates set for argument. If postponement is granted, USDA says it will be able to show specific cases of undue injury to farmers.

WITH THE NEW PRODUCTS

Feed Service Corp. now has a U. S. patent on Morea liquid feed supplement for livestock. U.S. Industrial Chemicals will make and sell the premix in states east of the Mississippi and west of the Continental Divide, and is now in the process of appointing local mixer-distributors in those areas.

Lilly's hygromycin has been cleared for continuous feeding to all weights and ages of swine, including breeding stock. It was previously recommended for growing pigs up to 100 pounds. Lilly's G. L. Varnes says that if hygromycin (which is sold as a premix to feed manufacturers) were to be fed to all swine, roundworms, nodular worms, and whipworms could conceivably be wiped out. Hygromix is also being offered to Canadian farmers. Lilly's Stilbosol (diethylstilbestrol premix) is now cleared for feeding to all fattening lambs and sheep at a recommended dosage of 2 mg. per sheep per day.

Chemagro's Guthion has been registered for use on deciduous fruits. Its use on apples, says Chemagro, will eliminate the need to apply three or four different chemicals throughout the season. It is also recommended for use on peaches, nectarines, apricots, quince, and pears.

ZERO TOLERANCE FOR METHOXYCHLOR IN MILK

Food and Drug Administration has set a zero tolerance for methoxychlor in milk, thus outlawing use of methoxychlor sprays on dairy cows. However, USDA is telling dairy farmers they can apply methoxychlor as a dust to the backs of cows to control hornflies. If applied this way, it says, no methoxychlor residues will occur in the milk. Du Pont had asked FDA to set a tolerance of 0.25 p.p.m. for methoxychlor in milk. An advisory committee chosen by the National Academy of Sciences recommended that Du Pont's petition be denied on the grounds that evidence was inadequate to justify establishment of the tolerance proposed, and that FDA reconsider its classification of milk as a "raw agricultural commodity." Citing the important place of milk in the diet of both well and ill humans, the committee said experimental evidence should be provided on the effect of methoxychlor on growth of newborn and infants of two warm-blooded species; on reproduction in at least two generations (including effect on the foetus); under dietary conditions in which milk is a major component; and upon animals with liver injury.

INSECT WARNING SIGNALS

Surveys of fall grasshopper and corn borer populations have led USDA to hoist warning signals. Corn borer numbers were greater for the U.S. as a whole than in any previous year--average number per 100 corn plants rose from 112 in the fall of 1956 to 170 in 1957. Iowa, Missouri, and South Dakota showed the heaviest infestations, with populations reduced in Indiana, Illinois, Michigan and Ohio. On the decline in the East, corn borers have spread south, particularly in Arkansas, Alabama, Mississippi, and Louisiana.

USDA says outbreaks of grasshoppers in Texas, Montana, California, and Colorado may require organized control effort this year. Some 15 million acres of rangeland in those states must be watched closely. Smaller potential trouble spots occur in Washington, Oregon, Idaho, Wyoming, Utah, Nevada, New Mexico, Nebraska, and South Dakota. Cropland infestation, however, is generally lighter than a year ago.

REORGANIZATIONS AND ACQUISITIONS

Morton Salt Co. has formed a new subsidiary company, Morton Chemical Co., to which it has transferred all of its chemical operations. Involved in the transfer are Ringwood Chemical Co. (which produces seed protectants and other agricultural chemicals), Panogen, Inc., and Larvacide, Inc. The latter two have been merged into Panogen Co., which will be a division of Morton Chemical. Also included in the transfer is the research laboratory at Woodstock, Ill.

Upjohn has formed a veterinary division by consolidating four of its departments—veterinary medical, veterinary sales, veterinary research, and veterinary advertising. Head of the new division is Gordon G. Stocking. Purpose of the consolidation is to integrate veterinary activities, and accelerate development of new products to fit the needs of the veterinary profession.

Diversey Corp. has acquired Wilson Chemical Co., Honolulu. Diversey says it will use the plant as a blending and compounding center for agricultural chemical production.

Morningstar, Nicol, Inc., has merged with its subsidiary, Paisley Products, Inc., to form a single corporation, Morningstar-Paisley, Inc.

MEETINGS THIS MONTH

More data from National Analysts' survey of farmers' attitudes toward fertilizer will be released at the annual Conference of Mid-western Agronomists and Fertilizer Industry Representatives in Chicago Feb. 13 and 14. J. M. Bohlen and G. M. Beal, Iowa State College marketing experts, will be there to show how two groups of dealers compare in the effectiveness of their fertilizer selling.

Other meetings this month: National Food Conference, under the joint sponsorship of major farm and food organizations, in Washington, D. C., Feb. 24; Pesticide Chemicals School, Clemson College, Clemson, S. C., Feb. 25 and 26; Ohio-Indiana Agricultural Aviation Conference, Ohio State University, Columbus, Feb. 26 and 27.

Spotlight

- Boom in urea will raise domestic capacity by 90,000 tons this year for a total of some 700,000 tons. Chief reason--efforts to upgrade ammonia (page 87).
- Biggest push in pest repellent field is for livestock spray, but some think large potential markets exist in protection for crops, ranges, and forests (page 88).
- Evaluating committee drafts 32-point plan for TVA's fertilizer program, recommends it be put on strictly educational basis (page 90).
- Total tonnage of fertilizer sold in 1956-57 increased slightly, with total plant nutrient use up 4% for a record high (page 93).

Uniform samples of pure lard offered for cholesterol research

In the interest of promoting more research using pure lard as well as other fats, we are making this offer to all nutritionists, scientists, and heart specialists engaged in research of the possible relationship between diet and cholesterol in the blood stream.

As reports of the continuing research on the subject are being published, it becomes increasingly evident that pure lard is seldom, if ever, being used experimentally.

We are concerned because lard is a very common form of fat in many diets and it is becoming suspect by association in the admittedly inconclusive reports filtering through to the average consumer.

Research people may not be using pure lard in their experiments because it is midway between other fats in the saturation table. It has also been suggested that controlled samples of pure lard are not being used by researchers because statistically-standardized samples of pork fats are difficult to obtain.

We would like to make samples of pure (non-hydrogenated) lard available gratis to anyone interested in using it. These samples will be all fresh pork fats, controlled and guaranteed to be uniformly pure.

Merely indicate — on your letterhead — the quantity you desire. We would appreciate a very brief explanation of your experiment which will, of course, be kept confidential.

Please address your request to Mr. John E. Thompson, President, Reliable Packing Co., 1440 W. 47th Street, Chicago 9, Illinois.

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INSECTICIDES FROM CHRYSANTHEMUMIC ACID

Chrysanthemumic acid is the source of USDA's new synthetic insecticides that are less toxic to warm-blooded animals than any now in use. After screening some 200 esters of the acid, chemists W. F. Barthel and B. H. Alexander rated the 6-bromopiperonyl alcohol and the 6-chloropiperonyl alcohol esters as the best. Both are more expensive and less effective insect killers than DDT and other chlorinated hydrocarbons. They are equal to or better than either pyrethrum or allethrin, although somewhat slower in knockdown. Insects they kill: codling moth, larvae of the malaria mosquito, salt marsh caterpillar, southern armyworm, and body louse. USDA says manufacturing methods must still be worked out.

HOW WEED KILLERS WORK

Herbicidal compounds derived from N-phenylcarbamate, substituted urea, and triazine kill weeds by interfering with the Hill reaction of photosynthesis—they inhibit absorption of light by plants, and thus interfere with ultimate synthesis of carbohydrates. USDA scientists, presenting these findings before the Weed Society meeting in Memphis, said weed killing power of Simazin, a triazine derivative, can be reduced by supplying carbohydrates to the plant through its leaves. Another group of USDA scientists reported that dalapon kills weeds by preventing formation of pantothenic acid, one of the B vitamins.

RESEARCH EXPANSIONS

Architectural and engineering contracts have been awarded for five new soil research laboratory buildings for USDA. Total estimated construction cost: nearly \$1.5 million. The labs are to be located at Phoenix, Ariz., Riverside, Calif., Oxford, Miss., Watkinsville, Ga., and Morris, Minn.

The new budget calls for a fertilizer research expenditure by TVA of \$1.6 million, compared with the current \$1.5 million. TVA has also asked for \$1,279,000 for its test and demonstration work, up from the budgeted \$1,206,000 of this fiscal year.

New York Agricultural Experiment Station at Geneva will begin construction of a food science building in the spring. The structure will have 24 chemical and bacteriological laboratories, storage rooms with wide-range temperature and atmospheric controls, and an underground irradiation room for food processing and plant genetics research.



- Fast determination of total halides in insecticides accomplished with sodium reduction in anhydrous ammonia (page 104).
- Pesticides containing active halogen can be determined quantitatively by colorimetric procedures based on reactions with pyridine and alkali (page 106).
- Colorimetric method for estimating malathion residues on plants has been adapted to analysis of animal products (page 111).
- Industrial evaluation of the oil and wax from jojoba, cultivation of which could reduce dependence on foreign plant wax (page 118).