

# News of the Month . . .

## INDUSTRY

### Vitamin B<sub>12</sub> from Sewage Sludge in Milwaukee Plant

The Milwaukee Sewerage Commission has started construction of a plant to extract vitamin B<sub>12</sub> from Milorganite, the dried, sterile sludge from the city's sewage disposal plant. Not all of the sewage plant's output will go through the extraction process in the beginning, but the plant is being designed to handle all of the sludge eventually, its potential annual capacity to be in excess of 200 pounds of vitamin B<sub>12</sub> activity.

Vern E. Alden Co., Chicago engineering firm, will build the new plant and form a new corporation to own and operate it. Armour Laboratories is to take the entire vitamin output and process it further at its plant in Kankakee, Ill.

According to the company and the commission, the extraction process will not diminish the fertilizer value of Milorganite.

### ADM Enters Radiation Field With Purchase of Half of ARCO

Archer-Daniels-Midland Co., Minneapolis food and chemical processor, has announced purchase of half interest in Applied Radiation Corp., California producer of linear electron accelerators. The price was not disclosed.

Thomas L. Daniels, president of ADM, pointed out that a large part of the company's products are sold to the food industry and that radiation may soon be applied to prolong keeping qualities of these products. He mentioned specifically the company's flour mills in connection with use of radiation to protect stored grain from insects. He said the company's chemical processing may also benefit from radiation. Acquisition of ARCO, he revealed, was the result of a year-long study by the company's development department and one more step in ADM's planned diversification.

### 3 Companies in New Building

New facilities for Insect Control & Research, Inc., Cornell Chemical & Equipment Co., Inc., and American Bio-Chemical Laboratory, Inc., have been completed near Baltimore. The new building, called Science Center, will house all three companies in separate but adjacent quarters. These include library, offices, conference rooms, varied laboratory and testing

areas, warehouse, and service facilities.

Eugene J. Gerberg is president of the new venture.

Insect Control & Research services the industrial sanitation field and is retained by many food plants. It has household pest, termite, and weed control divisions, and it maintains entomological testing laboratories.

Cornell Chemical & Equipment distributes agricultural chemicals and application equipment. American Bio-Chemical provides research, development, and testing services in the fields of sanitation, food and food packaging, and in other areas.

### Davison's Triple Super Plant at Bartow Featured in I&EC

Operation of Davison's granulated triple superphosphate plant at Bartow, Fla., is described in a Staff-Industry Collaborative report in the October 1956 issue of *Industrial & Engineering Chemistry*. Among topics covered are the plant's production equipment, the chemistry involved in the process, waste disposal facilities, quality control, utilities.

### Agriform Liquidates; Four Independents to Continue

Agriform Co., a pioneer liquid fertilizer manufacturer in California, will sell all its assets, and will be succeeded by four new and separate organizations, according to John C. Anderson, president.

New companies are: Agriform Co. of the Imperial Valley, Inc., W. H. Remsen, president; Agriform of Kern County, Inc., F. E. Wingate, president; Agriform of Corcoran, Inc., Donald Hixon, president; and Agriform of Northern California, Inc., D. W. Galbraith, president.

Each of the new companies will buy part of the assets of the original company and will continue the Agriform line of fertilizers and agricultural chemicals within its respective area. The move, says Anderson, will permit the new companies to operate more effectively in meeting the wide diversity of needs from region to region in California agriculture. Furthermore, the move is in line with the current trend toward one-step distribution from basic supplier to farmers.

### U. S. Borax & Chemical to Build Lab at Anaheim

U. S. Borax & Chemical Corp. is to build a research laboratory at an

orange grove site in Anaheim, Calif. Construction was started in September on the 30,000-square foot, reinforced concrete building, and completion is expected late in April. The \$850,000 laboratory will be equipped for chemical research, with an instrument room, greenhouse, distillation room, heavy equipment room, and a library. The laboratory is to serve the company's three divisions—U. S. Potash Co., Pacific Coast Borax Co., and 20 Mule Team Products.

### Ford Switches from Ammonium Sulfate to DAP

Ford Motor Co. has switched from manufacture of ammonium sulfate fertilizer as a by-product of its coke ovens to diammonium phosphate.

In the new process for removing ammonia from gases of its coke ovens at Dearborn, Mich., Ford uses electric-furnace phosphoric instead of sulfuric acid. The conversion of its process was completed with technical assistance from Monsanto Chemical Co. About 80,000 pounds of diammonium phosphate for fertilizer use is produced every day.

### Escambia Chemical Drops Bay from its Name

Escambia Bay Chemical Corp. has dropped "Bay" from its corporate name to become Escambia Chemical Corp., it announces.

Executive offices of the company have been established at 261 Madison Ave., New York City. Research and development offices are at Cambridge and Newton, Mass.

### Merck Buys Farm for Poultry Research

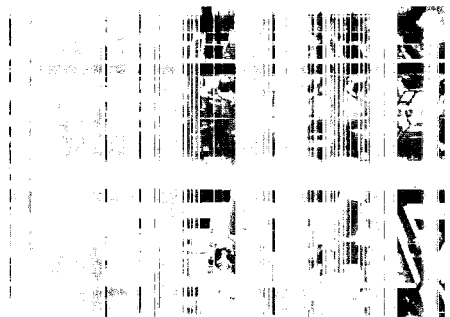
Merck & Co., Inc., has purchased a 58-acre farm in Kent County, Delaware, to expand its facilities for poultry research. Donald Fogg has been placed in charge of the farm, where research is already under way.

### Distribution Points Set Up for McKesson's Feed Chemicals


McKesson & Robbins' chemical department has added storage and distribution facilities for its line of feed chemicals at Toledo, Ohio, and Charlotte, N. C. Its chemicals for feed line consists of some 50 items, includ-

# at Calspray

... California Spray Chemical Corporation's new Complex Fertilizer Plant at Richmond, California which will shortly go on stream ... rated capacity is 400 tons-per-day. The new plant was designed by C & I and is the first of its type in the Western Hemisphere using the PEC continuous chemical processes. Wide range and flexibility are provided, and most any desired grade of fertilizer can be produced. This process was selected by Calspray after careful research and comparison of all available processes.



a portion of the reactor floor showing acidulating vessels



gigantic rotary driers condition pelleted plant food



part of the granulating section

# complex & fertilizer

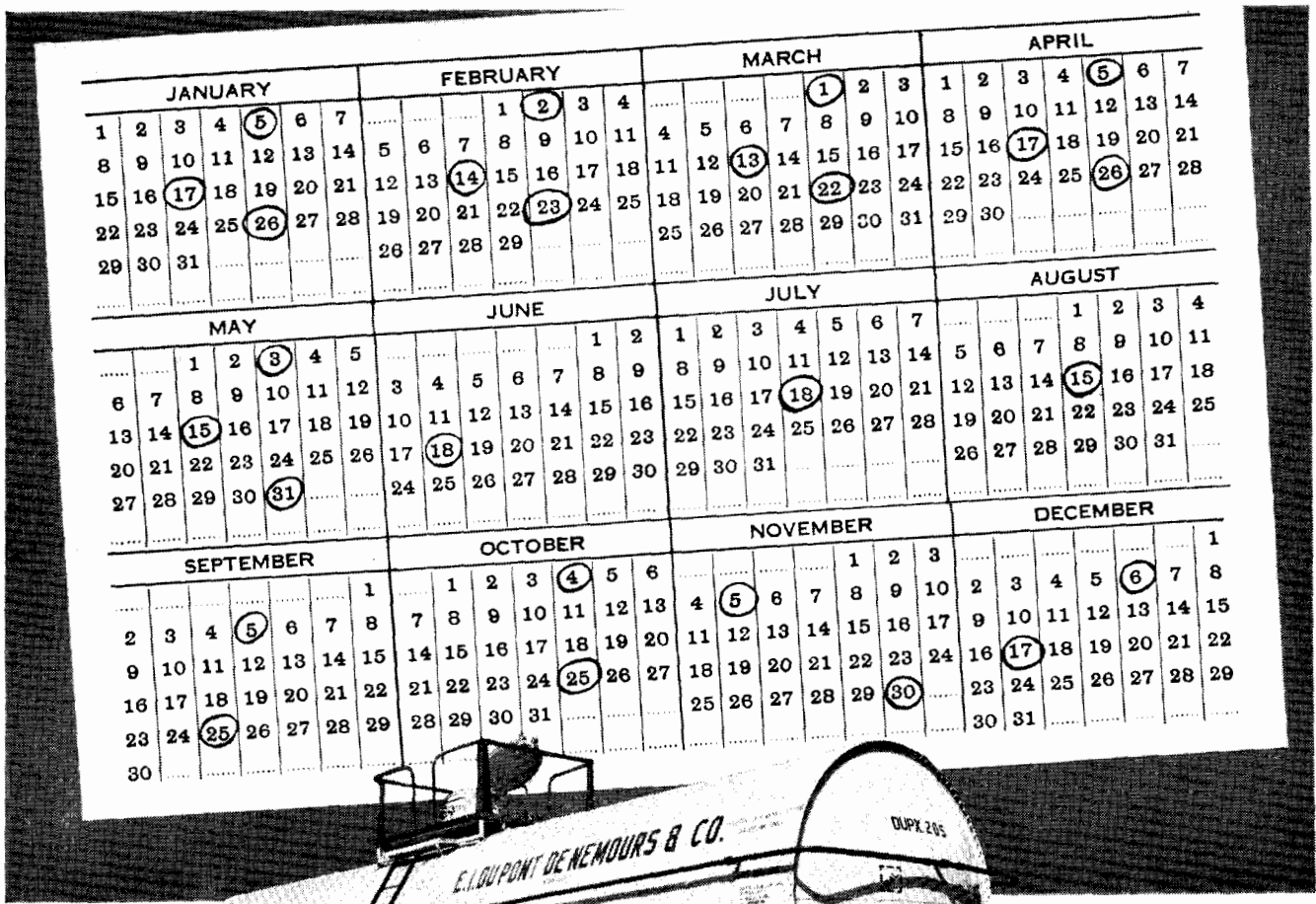


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ing antibiotic supplements, antioxidants, vitamins, and enzymes. The Toledo address is 15-29 South Ontario St. and the Charlotte address is 1949 Freedom Drive.

### Kolker Doubles Methyl Bromide Capacity

Kolker Chemical Corp. has installed new facilities for production of methyl bromide at its plant in Newark, N. J. When put on stream, the unit will double Kolker's present methyl bromide capacity.

## **BUSINESS AND FINANCE**

### Grace Earnings up 11%

W. R. Grace reports an 11% increase in earnings for the half year ended June 30. Net income amounted to \$10,547,545, compared with \$9,426,664 in the same period of last year. Sales were \$222,118,000 against \$219,398,000 last year.

Most notable increase among the company's chemical subsidiaries was that of Dewey & Almy, J. Peter Grace, president, said. The Davison and Grace Chemical Divisions, he said, suffered from a general weakness in the demand for agricultural chemicals.

### IM&C Profit Drop Due to Strike

International Minerals & Chemical reports earnings of \$5,401,723 on sales of \$96,626,799 for the fiscal year ended June 30. In the previous year, IM&C reported sales of \$96,485,017 and earnings of \$6,321,903.

In the report to stockholders, Louis Ware, president, attributed the earnings decline to the industry-wide strike in the Florida phosphate fields, lasting from June 1 through Sept. 30, 1955. Other reasons he gave for the sales decline were the uncertainties of farm legislation, lower farm income, and a late spring in many farm areas. These factors reduced sales and profits of the plant food division. The industrial minerals, potash, and amino divisions all had sales increases.

## **GOVERNMENT**

### Pest Control Work in the U. S. Forest Service Consolidated

All control work on forest insects and diseases has been consolidated

into one division of the Forest Service, the U. S. Department of Agriculture has announced.

This new division of Forest Pest Control will be responsible for the department's activities in controlling insect infestations, disease epidemics, and white pine blister rust growth on Federal, State, and privately owned forest lands. Warren V. Benedict, formerly in charge of the white pine blister rust control program, will head the new division.

But since most of the work will be done cooperatively with State foresters and other public agencies or private land owners, the division will be under the general supervision of William S. Swingler, assistant chief of the Forest Service in charge of cooperative programs.

Assisting Mr. Benedict in work of the new division will be Conrad P. Wessela, formerly in charge of blister rust control work in the Pacific Northwest Region of the Forest Service, and Russell K. Smith, former supervisor of the Nebraska National Forest at Lincoln, Neb.

## **FOREIGN**

### Scottish Agricultural Industries Builds Fertilizer Plant

Scottish Agricultural Industries, Ltd., is building a plant for concentrated granular fertilizer at Leith, Scotland. The new plant includes three main process units—sulfuric acid production, phosphoric acid production, and a formulation and granulation plant designed by Dorr-Oliver. When completed, the entire project, which also includes reconstruction of a nearby existing SAI fertilizer plant, will cost approximately \$8.5 million.

The D-O designed plant will produce a variety of concentrated granular fertilizers using the Dorrco granular fertilizer process. This process features the coating of muriate of potash, filler, and recycled fines with relatively thin slurries of ammonium phosphate and ammonium sulfate. After granulation in a Dorrco Blunger, the pellets are dried and screened. Oversize product is crushed and mixed with the undersize to be recycled to the Blunger. The intermediate screen fraction is final product.

The sulfuric acid unit will begin producing in August, and construction of the phosphoric acid unit and the granulation plant is nearing completion. All three process plants, the major portion of the new SAI project, are being built on 19 acres of land

reclaimed from the Firth of Forth by Leith Dock Commission. Because of this location with deepwater dock facilities, imported raw materials—phosphate rock, sulfur, and potash—can be shipped directly to the plant by water. These materials will be unloaded at a rate of 350 tons per hour and stored prior to use in a storehouse of 56,000 tons' capacity.

### Fisons Gives Rebates for Fall Fertilizer Delivery

Fisons Ltd. has announced a policy of rebates to farmers who take delivery on compound fertilizer between July and January. The rebates are scaled so that farmers taking delivery of 20 tons during July or August will save £30, whereas those taking delivery in January would save £10.

The company packages its fertilizer in five-ply paper bags with an acid-proof barrier and a moisture-proof barrier.

The company has also published a folder telling farmers how to store the fertilizer bags in order to minimize caking.

## **RESEARCH**

### TVA Testing Two New Liquid Fertilizers

TVA announces it is producing liquid fertilizers on an experimental basis and on a pilot plant scale. Productive capacity is about 10 gallons an hour and the entire output is being used in tests and experiments, TVA says.

Among the liquids now being tested is "superphosphoric acid," which is said to be between 40 and 50% more concentrated than the phosphoric acid commonly used for fertilizer and chemical use. It makes a liquid fertilizer containing 12% nitrogen and 36% phosphate. The comparable grade on the market is 8% nitrogen and 24% phosphate. Shipping costs for the more concentrated phosphoric acid, says TVA, would be substantially less than those for the commonly used phosphoric acid.

The other liquid being tested by TVA is ammonium metaphosphate, which in solid form contains 90% plant food. However, the solid form is difficult to produce. The more easily produced solution form is stable at low temperatures, and TVA says it contains as much as 52% plant food.

**ASSOCIATIONS**

**Merchandising Fertilizer, Theme of November CFA Meeting**

Fertilizer merchandising is to be the theme of the California Fertilizer Association meeting next November. The meeting is to take place at the Hotel del Coronado, Coronado, Calif., from Nov. 11 through 13. The part which each level of the fertilizer manufacturing and distribution system must play to assure sound distribution will be outlined.

**Control Officials to Meet During Week of Oct. 15**

The Association of American Pesticide Control Officials and the Association of American Fertilizer Control Officials are to meet in Washington during the week of Oct. 15 in conjunction with the meetings of the feed control officials and the official agricultural chemists groups. Sessions will be held in the Shoreham Hotel.

The pesticide officials group will open its meeting on the evening of Oct. 17 and its general meeting is to be held on Oct. 20. The fertilizer officials will meet on Oct. 19. A feature of this meeting will be discussion of the proposal to change from the oxide to elemental basis for phosphorus and potassium (AG AND FOOD, August, page 663).

**Short Course for Aerial Applicators at Ohio State**

A short course for pilots interested in crop dusting is to take place at Ohio State University from Oct. 15 through Nov. 21. The university and the Ohio Aviation Board will sponsor the course. It is to include 100 hours of ground school on such subjects as equipment calibration, aircraft maintenance, insect control, weed and brush control, defoliation, seeding, fertilizing, disease control, laws and regulations, and customer relations. In addition there are to be 30 hours of flying. Additional information can be obtained from the school of aviation, Ohio State University, Columbus 10, Ohio.

**Fertilizer Safety**

The fertilizer section of the National Safety Council announces that its meeting during the annual National Safety Congress will be on Oct. 22 and 23. The congress is to meet in Chicago at the La Salle Hotel. Luncheon speaker on Oct. 23 will be H. S. Baucum, safety director for the North

Carolina Industrial Commission. His topic is "A Safety Program for the Average Plant."

**Aerial Applicators Meet In St. Louis Next Month**

The annual aerial applicators' conference is scheduled for Nov. 1 through 3 at the Chase Hotel in St. Louis. This meeting, held annually since 1952, is sponsored by the National Aviation Trades Association.

On the conference agenda is a review of the "air agency" idea being developed by the Civil Aeronautics Administration, and a round table discussion with USDA personnel on improvements of contracts and contract operations. Roy Allgyer of USDA will discuss aviation research within USDA. Also to be discussed is safety with phosphate insecticides—by C. Boyd Shaffer of American Cyanamid's medical department.

**Midwest Fertilizer Group to Meet in October**

The annual meeting of the Middle West Soil Improvement Committee has been set for Oct. 25 at the Sherman Hotel in Chicago. On the agenda will be a summary of the results of MWSIC's educational publicity program. State-by-state reviews will be presented on MWSIC-supported research on fertilizer use at the various colleges.

**PEOPLE**

**Hatch Elected NAC President**

Fred W. Hatch, manager of Shell Chemical's agricultural chemicals division was elected president of the National Agricultural Chemicals Association during its recent meeting at Spring Lake, N. J. He succeeds W. W. Allen of Dow, under whom he served as vice president. J. V. Vernon, president of Niagara Chemical, assumed the vice presidency of NAC. Three new members were elected to the board: Arthur W. Mohr of Calspray, George R. Vila of Naugatuck Chemical, and T. L. Wilkerson of American Cyanamid. Retiring from the board were Paul Mayfield of Hercules Powder



F. W. Hatch

and August Petrus of Cotton States Chemical.

Walter E. Whiteis has been appointed technical superintendent of Hercules' ammonia plant at Louisiana, Mo. James H. Gunning succeeds him as operating department supervisor.

William R. Meagher and Albert W. Lutz have joined the research department of Chemagro Corp. Dr. Meagher was formerly with the California State Department of Public Health. Dr. Lutz was associate professor of chemistry at the College of William and Mary.

J. J. Simmons has been promoted from market specialist to plant products manager for Merck. J. E. Diggers, former Calspray representative in Florida, has been appointed to a Merck sales promotion and field service post in the Florida area. Both new posts have been created to facilitate the company's research and sales program in agricultural chemicals, Merck says.

Arthur W. Mohr, president of Calspray, Lowell W. Berry, president of Best Fertilizers, and John N. Williams, president of General Fertilizer & Supply Co., have been elected to the board of directors of the California Fertilizer Association.

Roger W. Hinchman has been named general sales manager and Lloyd L. Fusby western manager of Pacific Coast Borax Co., division of U. S. Borax & Chemical Corp. Mr. Fusby, former production manager, will be located in Los Angeles, and Mr. Hinchman, who has held various sales positions with the company since 1941, will be in New York.

William S. Emerson has joined American Potash as manager of research at its Whittier, Calif., laboratory. He has been with Monsanto as assistant development director.

John D. Zigler has been appointed general manager of the plant food division of International Minerals. For the past two years, he has been supervising sales and production for the division's 26 fertilizer plants.

Kenneth R. Brown, vice president and director of Atlas Powder, retired Aug. 31 after 38 years with Atlas.

J. D. Clary has been named production superintendent of the Florida phosphate division of Davison Chemical. He was assistant works manager at the company's plant in Baltimore.

William T. Sample, formerly with Mid-South Chemical as an agronomist,

has joined U. S. Testing Co. in Memphis, Tenn., where he will conduct and supervise physical and chemical tests to evaluate soil fertility and the effects of soil management on cotton and other crops.

**Ernest R. Marshall** has joined the Carbide & Carbon fellowship at Boyce-Thompson Institute to coordinate field testing of new agricultural chemicals. Dr. Marshall was formerly with GLF Soil Building Service.

**Bradshaw Mintener** has resigned his position as Assistant Secretary of Health, Education, and Welfare to take up the private practice of law in Washington, D. C. Marion B. Folsom, Secretary of Health, Education, and Welfare said: "His sound advice on the problems of the Food and Drug Administration has been instrumental in laying a proper foundation for a greatly needed expansion of its activities."

**Leo E. Orth** has been appointed agronomist in Sinclair Chemicals nitrogen products division headquarters in Chicago. He was formerly director of research and agronomist for Minnesota Farm Bureau Service Co.

**F. T. Nielsson** has been named development section supervisor for International Minerals' plant food division. He will be responsible for directing process development.

**Allen B. Lemon**, Chief of the California Department of Agriculture's bureau of chemistry, has been promoted to chief of the Department's Division of Plant Industry. He succeeds **Chas. V. Dick**, who has been appointed to the new position of assistant director of the department.

**Otto P. Steinen** has been appointed assistant sales manager of agricultural chemicals for Naugatuck Chemical Division of U. S. Rubber. He has been technical representative for the company in the Los Angeles area.

**Joseph F. Pechanec**, chief of range management research for the Forest Service, has been promoted to director of the Southeastern Forest and Range Experiment Station at Asheville, N. C. He succeeds **Elwood L. Demmon**, who retires Oct. 31.

**Robert L. Rudd**, special consultant on agricultural chemicals for the California Department of Fish and Game, has joined the staff of the zoology department at the University of California, Davis.

**William F. Hall**, sales manager of the agricultural division of Chipman Chemical Co., Inc., has retired after

26 years with the company. His duties will be assumed by **Blanchard J. Smith**, vice president for sales.

**Marlin G. Geiger** has been elected executive vice president in charge of the seven chemical divisions of W. R. Grace & Co. Succeeding him as president of the Davison Chemical Division is **William E. McGuirk, Jr.**, former executive vice president of Davison. Mr. Geiger assumes duties formerly assigned to **Hugh S. Ferguson**, who becomes a member of the top management group with corporate-wide responsibilities. **Charles E. Waring**, former vice president in charge of research and development for Davison, becomes a vice president of Grace Chemical Research & Development Division and will also serve as vice president of W. R. Grace.

**Dick M. Bassett**, junior research agronomist in the University of California College of Agriculture, has been assigned to full-time studies of cotton fertilization at the U. S. Cotton Field Station at Shafter. **Duane S. Mikkelsen**, assistant professor of agronomy at Davis, will continue study of rice and other field crop fertilization.

**Tom E. Martin** has been appointed field service engineer for the chemical sales department of U. S. Industrial Chemicals, a division of National Distillers. Formerly with Snyder Chemical of Topeka, Kans., he will be responsible for technical service connected with sales of USI ammonia, nitrogen solutions, sulfuric acid, and phosphoric acid.

**J. W. Means** has been named chief chemist of Chase Bag Co.'s general laboratory at Chagrin Falls, Ohio. He has been assistant chief chemist.

**G. Cullen Thomas**, retired vice president of General Mills, Inc., has been appointed special consultant to the Food and Drug Administration. He recently served as chairman of the Citizens Advisory which studied and reported on FDA activities.

**Tom H. Stewart** has been named technical service manager for the Grand River Chemical Division of Deere & Co. He has been with International Minerals & Chemical.

**Jack Lomax** has joined the sales staff of Velsicol to handle technical problems and contacts with state experiment stations as well as with technical personnel of Velsicol customers.

**R. W. Starostka** has left USDA to join Davison Chemical's department of agricultural research. At USDA,

he was soil scientist with the Fertilizer and Agricultural Lime Section.

**Sylvan I. Cohen**, vice president in charge of research for Gallowhur Chemical, has joined Olin Mathieson's insecticides division as an agricultural research specialist. He will be located at Port Jefferson, N. Y.

**Donald H. Hale** joined the central engineering department of Food Machinery & Chemical at San Jose, Calif. He is to be concerned with studies on food irradiation. Recently retired from the U. S. Army, Dr. Dale has been commander of the Chemical Warfare Laboratories at Army Chemical Center, Md.

**Wheeler McMillen**, former editor-in-chief of the *Farm Journal* and board chairman of the Council for Agricultural and Chemurgic Research, has been named executive director of the Commission on Increased Industrial Uses of Agricultural Products (AG AND FOOD, August 1956, page 668).

## DEATHS

**Norman E. McIndoo**, USDA entomologist for 34 years, died Sept. 7 in Washington at the age of 75. He had retired from USDA in 1945. Author or coauthor of some 65 scientific publications, he worked on rotenone and invented the olfactometer, which measures insect responses to attractants and repellants.

**James J. Kerrigan**, former president of Merck, died after a long illness on Sept. 5. He was 62. Mr. Kerrigan joined Merck as a messenger boy in 1907. Twenty years later he became vice president and director, assuming the post of president in 1950. Resigning as president in 1955, he continued as chairman of the executive committee.

**H. R. Kraybill**, vice president and director of research and education for the American Meat Institute Foundation, died Sept. 30. He had been with AMIF since 1941. Before that he had been head of the department of agricultural chemistry at Purdue for 15 years. Once chairman of the ACS Division of Agricultural and Food Chemistry, he had worked on various research projects ranging from methods for determining available potash in fertilizer to fat antioxidants and industrial utilization of agricultural products. Dr. Kraybill was born in 1891 in Pennsylvania and his first position as a chemist was in the agricultural experiment station at Penn State, his alma mater.