physical volume if results for the feed mill and the Oakland plant were deleted from the 1954 figures.

Glidden's ratio of net profit to dollar sales volume, amounted to 3.9% for fiscal 1955, compared with 3.4% in both 1954 and 1953.

The increase, it was said, reflects Glidden's policy of eliminating low profit margin operations, a concentration of effort on higher profit margin items, increased efficiency of producing units, and improved volume.

The company's gross plant additions during fiscal 1955 amounted to \$8,-155,366. With construction now in progress and planned, capital expenditures in 1956 will exceed \$13 million. This includes the \$6 million grain elevator on the Calumet River in Chicago.

Mr. Joyce declared that the company's current budget for research and development is approximately 20% higher than in the preceding year, with the greatest part of research efforts directed toward new product development, and cost reduction to strengthen positions in present markets and upgrade basic materials.

## Michigan Chemical Shows \$203,552 Profit for 9 Months

Michigan Chemical Corp. announces an operating profit after taxes for nine months of \$203,552 against a loss in the similar period in 1954 of \$74,603. This was equal to 38 cents a share on the outstanding 537,077 shares against a 14-cent loss in the 1954 period.

Besides the operating profit, the company also had a nonrecurring gain after taxes of \$77,118, or 14 cents a share realized during the third quarter from the sale of capital assets.

Sales for the quarter ended Sept. 30, were \$1,945,811, as compared with \$1,654,768 in the third quarter of 1954. For the nine months' period, net sales were \$5,257,722 in 1955, compared to \$4,589,710 for the similar period of 1954.

Excluding the nonrecurring capital gains profit, the amount earned in the third quarter from operations was \$65,714, or 12 cents a share compared to \$19,696, or 4 cents a share in the third quarter of 1954.

#### GOVERNMENT

### Tolerance Levels for Residues of Karmex Herbicides

Residue tolerance levels for the active ingredients of Karmex herbicides have been established by the Food and Drug Administration. The commercial formulations affected are Karmex W, based on 3-(p-chlorophenyl)-1,1-dimethylurea; and Karmex DW and Karmex DL, both based on 3-(3,4-dichlorophenyl)-1,1-dimethylurea. Tolerances of 1 part per million for each of the two herbicide chemicals have been established for sugar cane, pineapple, and cottonseed, and in addition the same tolerance has been established for the active ingredient of Karmex W in or on asparagus, spinach, and dry bulb onions.

Du Pont reports that toxicological studies with these chemicals indicate that this tolerance represents a large safety factor. Even for materials of such relatively low toxicity, tolerances are being based on the amount of residue likely to be left when the chemical is used according to good cultural practice. Actual analyses of crops produced in fields where "Karmex" herbicides have been used indicate that normal residues are well within the tolerance which has been established.

# Three Coal-Tar Dyes No Longer Approved for Food Use

Food and Drug Administration has removed three orange coal-tar dyes from the list of those approved for food use. The dyes are FD&C Oranges No. 1 and 2 and FD&C Red No. 32. The order goes into effect Feb. 14, 1956, and is the final version of a regulation based on evidence received at a hearing held in December 1953.

Although the colors are not harmful in the amounts usually used in foods, investigation has shown them to be not harmless when fed in large amounts. Under the Food and Drug Act, food colors are required to be harmless.

The three dyes will continue to be approved for external drug and cosmetic use.

## USDA Urged to Study Fat Nutrition, Pesticides Residues

More intense study of the role of fat in human nutrition and the availability to the body of nutrients from various foods are recommended to USDA by its Food and Nutrition research advisory committee. Meeting in Washington early last month, the committee generally endorsed USDA's current programs but urged USDA to expand its nutrition research during fiscal 1958.

Other specific areas which the committee recommended that USDA study were:

Insecticide residues on plants and animal products, both from the standpoint of their direct effects on human nutrition and the indirect effects through their possible toxicity to plants and soils.

Plant sources vitamin  $B_{12}$  and factors affecting the use of this relatively new vitamin by animals.

The role of mineral elements in animal nutrition and the relation of mineral nutrition of plants to their content of toxic substances.

Control of insects infesting stored grain and development of insect-resistant packaging.

Development of instruments and tests for measuring food-crop quality.

### **ASSOCIATIONS**

# Southern Weed Conference in New Orleans, Jan. 16–18

The ninth annual meeting of the Southern Weed Conference will be held early in 1956 at New Orleans, La., Jan. 16 to 18, it is announced by Glenn C. Klingman, president. All sessions will be held at Hotel Jung.

Weed control in pastures, field crops, horticulture and other phases of agriculture will be discussed by leaders in this field from all Southern states. Mark Weed, E. I. du Pont de Nemours & Company, c/o Botany Department, Louisana State University, Baton Rouge, is the program committee chairman. Those interested in the program should contact Dr. Weed.

### NPFI Dates June 10-13

National Plant Food Institute has announced its 1956 meeting will be held June 10 to 13. The convention is scheduled for the Greenbrier at White Sulphur Springs, W. Va., as usual.

# Instrument Forum Open to Food Processors

A three-day forum on instrumentation in the food industry has been scheduled for March 19, 20, and 21 at The Foxboro Co., Foxboro, Mass., manufacturers of industrial instruments. The second annual program of its kind, the forum provides for exchange of ideas and application information between Foxboro instrument engineers and instrument users in the food industry.

Main theme of discussion periods will be instrument application. Special attention will be given to quality measurements such as viscosity and turbidity. It is planned to devote at least one forum session to the evaluation of graphic-type control panels as a tool for simplifying process operations and increasing operator understanding.

Applications should be made to L. M. Richardson, manager, food industry division, Foxboro Co., Foxboro, Mass.

### PEOPLE

# Wadleigh New Head of USDA Conservation Research

Cecil H. Wadleigh has been appointed chief of the Soil and Water Conservation Research Branch, USDA's Agricultural Research Service. He succeeds Robert M. Salter who died Sept. 13. Prior to his appointment, Dr. Wadleigh served the branch as head of the section on soil and plant relations, directing research for the past year and a half on chelate compounds for preventing iron deficiency in plants. Also under his direction has been the research on soil management and its effect on the nutritional value of crops and on application of atomic energy to soil research. Dr. Wadleigh has served the American Society of Plant Physiologists as president. In his nearly 15 years with USDA, he has done research at the U.S. Salinity Laboratory at Riverside, Calif., and from 1951 to 1954 he was head of the Division of Sugar Plant Investigations at Beltsville.

Curt C. Leben has left his teaching and research position in plant pathology and physiology at the University of Wisconsin to join the research staff of Eli Lilly & Co. With the addition of Dr. Leben to its research department, Lilly is now conducting research in animal nutrition, veterinary medicine, plant pathology, and physiology, entomology, and insecticides.

Robert W. Cairns has been appointed director of research for Hercules Powder Co. Dr. Cairns, assistant director since 1945, succeeds Emil Ott, who has resigned to accept a position with Food Machinery & Chemical.

R. Merton Love, professor of agronomy at the University of California, Davis, and author of the western section of the article on grasslands improvement (April Ag and Food), has received a Fullbright award to study grasses and pasture evaluation in New Zealand. He will leave next summer and will return to California in the fall of 1957.

Curtis A. Cox of Virginia-Carolina Chemical has been elected general chairman of the fertilizer section of the National Safety Council for 1956. To serve with him as vice chairman is E. O. Burroughs, Jr., of F. S. Royster Guano

Co.; and as secretary R. G. Diserens of Phillips Chemical.

**Peter G. Arvan** has been promoted from group leader to assistant director of research for Monsanto's inorganic chemicals division.

**Betty J. Means** has left Merck & Co. to join the microbiology staff of Food Research Laboratories, Inc.

E. C. Elting has been appointed deputy administrator of USDA's Agricultural Research Service in charge of experiment stations. He has been acting as assistant administrator since the retirement of R. W. Trullinger from that post three months ago. With this appointment, ARS has three deputy administrators, one of the other two being in charge of federal research activities and the other in charge of regulatory work. Previously, experiment station activities were headed by an assistant administrator. Dr. Elting has been on the staff of the experiment station office since 1936.

John J. Bingham has been elected vice president of Plant Food Corp. He has been manager of the company's northern division for the past 15 months.

Walter R. Fetzer, chief chemist for Clinton Foods, has been awarded the 1955 Iowa Medal of the ACS Iowa Section. Intended to stimulate advancement of chemical science and technology in the state, the medal honors Dr. Fetzer's achievements in the chemistry of cereals, corn, and sugar.

**Don T. Grange** has been appointed director of engineering for International Minerals. He has been chief construction engineer of the company's engineering division.

**Charles F. Fuchs,** vice president and technical director of Emulsol Chemical Corp., has been elected to membership on the company's board of directors.

Eugene N. Hetzel has been named plant manager of the Carondelet plant of Monsanto's inorganic chemicals division, succeeding Lee Cowie who has retired. M. Brooks Shreaves replaces Hetzel as production superintendent of the Carondelet plant.

J. Charles Cavagnol, formerly of the Lederle Division of American Cyanamid, has joined the central labs of General Foods as laboratory director in food analysis. Also joining the General Foods lab staff is David E. James, formerly of Edmont Mfg. Co., who will be section head of engineering and commercial development. Walter H. Harte, recently associated with Plasti-Flex, has

been named associate technologist in engineering research.

**T. R. Miller** has been promoted from director of plant laboratories to director of development for Carbide & Carbon Chemicals Co.

John C. Denton has been appointed vice president and general works manager of Spencer Chemical, replacing Richard F. Brown, who has resigned to accept employment with another company engaged in the nitrogen business. Succeeding Mr. Denton as general manager of construction and engineering is Byron Kern, formerly chief engineer of the company. Robert Byorum, formerly assistant chief engineer, has become chief engineer.

Nelson C. White has been elected vice president in charge of International Minerals & Chemical's potash division, succeeding A. Norman Into, who has resigned. Thomas M. Ware was elected administrative vice president. Mr. White was formerly general manager of the potash division, and Mr. Ware was formerly vice president in charge of engineering.

**D. B. Benedict** has been promoted from works manager to vice president of Carbide & Carbon Chemicals Co., a division of Union Carbide. He will be responsible for long range planning in research and development.

**T. H. Barton** has been elected to membership in the finance committee of Monsanto Chemical Co. At the time of the merger of Lion Oil, for which he was board chairman, into Monsanto, Mr. Barton was elected to Monsanto's board.

William K. Luby has left Corn Products Refining Co., where he was process technical director of manufacturing, to become vice president and general manager of Sil Flo Corp. of Fort Worth, Tex.



Joseph J. Burbage bage, who has been assistant director of research for the division, succeeds Christian H. Aall, who is leaving Monsanto to return to his native Norway. Before joining the inorganic division this year, Dr. Burbage was director of the Mound Laboratory, which Monsanto operates for AEC.