

News of the Month . . .

INDUSTRY

Woodbury Buys Denver Firm

Woodbury Chemical Co. of St. Joseph, Mo., has purchased Brancucci Chemical Co. of Denver, according to a Woodbury announcement. Active operation of the company is to be taken over by Woodbury this month, with Leonard Everett in charge. Soon to be in operation in Denver is the former Geigy dust plant, which Woodbury purchased in 1956 for removal from McGregor, Tex., to Denver.

The company recently opened a branch office in Coral Gables, Fla. It is also planning to branch out into the field of industrial chemicals.

Richfield Building Liquid Fertilizer Plant in Illinois

Richfield Chemical has bought property and made contracts for a liquid mixed fertilizer plant at Sycamore, Ill. Howard F. Kahn, president, says the plant is to be operating by the middle of this month. He also states that the firm, which was organized a year ago, "is to be merged with an old established corporation by which the new company will achieve a solid financial status."

Capacity of the liquid plant will be 200 tons a day. It will manufacture and stock a few standard ratios, and custom-manufacture other analyses to meet farmer requirements. It will serve directly the farmers within its own retail area; outside of that area it will serve farmers through established franchised dealers.

Hercules Making Feed Antioxidant

With completion of expanded facilities at Gibbstown, N. J., Hercules Powder announces that it will supply a food grade of di-tert-butyl-*p*-cresol for use as an antioxidant in animal and poultry feeds. Hercules' name for it is Dalpac FG.

McKesson & Robbins, Inc., will act as distributors of the chemical to feed and food industries, with its chemical department handling both sales and technical service.

Pfizer Seeks to License Allethrin Process Patent

Chas. Pfizer has announced it has acquired a patent on a new process for manufacturing allethrin. The new

process, covered in U. S. Patent 2,768,967, begins with an acetone dicarboxylic acid ester which Pfizer manufactures from citric acid.

The company does not plan to produce the insecticide, but it believes the new process will be of interest to prospective licensees.

ADM Organizes Belgian Firm To Manufacture Fatty Acids

Archer-Daniels-Midland Co. and a Belgian firm have organized a jointly owned company in Belgium for the manufacture of fatty acids and their derivatives. The Belgian firm is Palmafina, a wholly owned fats and oils processing subsidiary of Petrofina, a Belgian petroleum processor.

The new firm is Oleochim, S.A. It will produce for the Belgian market and for export to other European countries and throughout the world.

DDVP Permitted in Baits

DDVP (dimethyl 2,2-dichlorovinyl phosphate), discovered by George Pearce of the U. S. Public Health Service, and manufactured by Montrose Chemical Co., is now permitted by the Department of Agriculture for use in fly-baits and for control of phorids in mushroom houses, Montrose has announced. Usual approval of labels must be obtained. Hitherto, DDVP has been authorized only for experimental use.

Mathieson Organizing Fertilizer Distribution in Cuba

Mathieson Pan-American Chemical Corp. has announced it will organize its own distributing organization in Cuba for high analysis pelletized fertilizer. Headquarters will be in Camaguey. Sales manager will be Juan Aquayo, who is now with Mathieson Quimico of Mexico. Claus Tameling, formerly assistant production manager for fertilizer for the chemicals international division of Olin Mathieson, will assist him.

Warehousing facilities will be set up in the port of Pastelillo, near Camaguey. Both are in the heart of the sugar cane and rice areas of Cuba.

Warfarin Patent Upheld In Japanese Proceeding

Wisconsin Alumni Research Foundation reveals that its patent on a

method for producing warfarin has been upheld in recent proceedings in Japan. Toko Chemical Co., Ltd., of Tokyo had sought a declaration of the Japanese Patent Office Tribunal to the effect that its process of making warfarin was outside of the WARF patent. The firm's process involved certain modifications of the preferred procedure, according to WARF.

Ward Ross, who is managing director of the foundation declared: "This proceeding in Japan illustrates the foundation's determination to maintain and defend its patents, in litigation if necessary, even in foreign countries."

Organoleptic Service To Food Processors

Eastman Chemical's antioxidant laboratories have announced inauguration of a new service to food processors. Where practical, the company will treat samples of foods with antioxidants and return treated and untreated portions of the food to the processor for organoleptic testing. The company also maintains organoleptic testing facilities for its own use and will continue to evaluate foods treated with antioxidants by organoleptic means.

ASSOCIATIONS

Potash, Minor Element Deficiencies on California Program

The fifth annual California Fertilizer Conference, sponsored by the Soil Improvement Committee of the California Fertilizer Association, will be held on the campus of Fresno State College at Fresno, on April 14 and 15.

Two panel discussions will be featured, one on potash responses, and the other on minor element deficiencies.

The 34th annual convention of the California Fertilizer Association will be held at the St. Francis Hotel, San Francisco, on Nov. 3, 4, and 5. The theme will be "Our Partnership With Agriculture," and outstanding speakers representative of agriculture and of the fertilizer industry will be featured.

Fats in Nutrition to Be Discussed at AOCS Meeting

"Fats in Nutrition and Health" is the subject of symposium being planned for the annual meeting of the American Oil Chemists' Society. The meeting is scheduled for April

29 to May 1 at the Roosevelt Hotel in New Orleans, La.

Two other symposia and a number of general papers are also scheduled.

Food Preservation Symposium In Kansas City in April

A Symposium on Future Developments in Food Preservation, sponsored by Midwest Research Institute, will be held in Kansas City at the Hotel Muehlebach on April 2 and 3.

The emphasis the first day will be on expected future developments in food preservation, including methods of packaging. The speakers will consider refrigeration and freezing, dehydration, dehydrofreezing, heat sterilization, high energy sterilization (irradiation), and chemical preservation (antibiotics and additives).

Aspects of food preservation to be covered on the second day are the expected advances in economics and home economics, nutrition, public health, and other physiological considerations.

For further information, write "Food Symposium, Midwest Research Institute, 425 Volker Blvd., Kansas City 10, Mo."

Western Ag Chemicals Meet

The Western Agricultural Chemicals Association has announced that its spring meeting is planned for April 2 in Los Angeles at the Hotel Biltmore. Further information is available from the association, 2466 Kenwood Ave., San Jose 28, Calif.

Two Symposia, Plant Tours on Ag and Food Program for Miami

Over 35 papers, including one full-day symposium, are scheduled for the Division of Agricultural and Food Chemistry for the 131st National Meeting of the ACS next month. The meeting takes place in Miami, Fla., April 7 to 12. Also scheduled by the Ag and Food Division is a two-day symposium on methods of analysis for pesticide residues (see program below), sponsored by the Pesticides Subdivision and the Division of Analytical Chemistry.

Several trips to plants, laboratories, and farms in the area are scheduled. Among those who will open their doors to ACS members are American Agricultural Chemical Co.'s phosphate mine and processing plant at Pierce, Fla.; the Subtropical Experiment Station of the University of Florida; the Tropical Food Research Laboratories of the University of Miami; B&L Farms, Inc., at Princeton, where 6000 acres of tomatoes, corn, and snap beans are being raised for the fresh vegetable

market; and the Florida Citrus Canners Cooperative at Lake Wales.

The divisional luncheon, Wednesday noon, will feature as the speaker Lloyd N. Hazleton, Hazleton Laboratories. His topic: "Food Chemicals—Whose Problem?"

The Ag and Food Division (program below) will meet at the Shelborne Hotel in Miami Beach, but the symposium being held with the Analytical Division will meet in the Biscayne Terrace Hotel in Miami.

MONDAY AFTERNOON

General

H. L. Haller, Presiding

H. L. HALLER. Introductory Remarks.
R. E. BEAUCHENE AND H. L. MITCHELL. The Effect on Temperature of Dehydration on the Proteins of Alfalfa.

KENNETH MORGAREIDGE, JOSEPH ICKEN, AND HERBERT GARY. The Estimation of Vitamin A in Foods Following Tandem Column Chromatography on Alumina.

K. P. DIMICK AND JOSEPH CORSE. Volatile Flavor of Strawberries. Minor Constituent Analysis by Gas Chromatography and Mass Spectrometry.

J. H. FERGUSON*, H. T. HUANG, AND J. W. DAVISSON. Stimulation of Streptomycin Production by a Series of Synthetic Organic Compounds.

A. CORNWELL SHUMAN, CLINTON K. DAVIES, JR., AND EDGAR E. SMITH. Meat Tenderness.

R. A. SLIWINSKI AND D. M. DOTY. The Determination of Microquantities of Methyl Mercaptan in Gamma-Irradiated Meat.

R. B. THOMPSON, J. A. CHENICEK, AND TED SYMON. Sulfur Compounds as Antioxidants.

STUART PATTON. (Borden Award in the Chemistry of Milk Address.) Organic Chemical Effects of Heat on Milk.

R. O. FEUGE AND AUDREY T. GROS. Polymeric Fats from Stearic, Oleic, and Short-Chain Dibasic Acids.

HARRY KROLL, ARTHUR WALLACE, LEE M. SHANNON, J. RICHARD KUYKENDALL, AND JAMES POWERS. Chelating Agents in the Control of Trace Element Deficiencies in Plants.

* deceased

TUESDAY MORNING AND AFTERNOON

Symposium on Trace Elements in Human, Plant and Animal Nutrition

Firman E. Bear, Presiding

FIRMAN E. BEAR. Introductory Remarks.

E. J. THACKER AND KENNETH C. BEESON. Occurrence of Mineral Deficiencies and Toxicities in Animals in the United States and Problems of Their Detection.

Discussion.
J. R. COUCH, A. A. KURNICK, B. L. REID, AND R. L. SVACHA. Trace Element Research in Poultry Nutrition.

ALFRED N. MEISS. Unified Study of Trace Elements in a Substrate-Plant-Animal Complex.

Discussion.

S. F. Thornton, Presiding

S. F. THORNTON. Introductory Remarks.

HENRY J. KOCH, JR. Trace Elements in Human Nutrition with Reference to Wide-Spectrum Mineral Salt Mixtures.

ARNOLD E. SCHAEFER. Sea Salt in the Over-all Nutritional Status of People in the Near and Far Eastern Countries.

R. E. NUSBAUM. Some Spectrographic Studies of Trace Element Storage in Human Tissues.

Discussion.

PERRY R. STOUT. Cobalt, Sodium, Iodine, and Fluorine Supplies for Animals Through Plant Materials.

C. F. MILLS. Comparative Metabolic Studies of Inorganic and Herbage-Complex Forms of Copper in Rats and Sheep.

Divisional Business Meeting.

WEDNESDAY MORNING

Symposium on Trace Elements in Human, Plant and Animal Nutrition

D. M. Doty, Presiding

D. M. DOTY. Introductory Remarks.

C. L. COMAR AND R. H. WASSERMAN. Fission Products in the Food and Biological Cycle.

F. L. CRANE AND D. E. GREEN. Role of Trace Elements in Biological Oxidations and Oxidative Phosphorylation.

Discussion.

ALVIN NASON. Function of Trace Elements in Enzyme Systems.

GEORGE K. DAVIS. Mechanisms by Which Trace Elements Function in the Animal Body.

Discussion.

Divisional Luncheon. Speaker: LLOYD W. HAZLETON, Hazleton Laboratories, "Food Chemicals—Whose Problem?"

Pesticides Subdivision

WEDNESDAY AFTERNOON

General

D. A. Greenwood, Presiding

D. A. GREENWOOD. Introductory Remarks.

HERMAN F. BECKMAN, EDWARD R. IBERT, BILLY B. ADAMS, AND DEAN O. SKOVLIN. Pesticide Analysis—Total Chlorine by Reduction with a Liquid Anhydrous Ammonia—Sodium Mixture.

F. A. GUNTHER, L. R. JEPSON, J. H. BARKLEY, L. M. ELLIOTT, R. C. BLINN, AND C. L. DUNN. Persistence of Residues of the Acaricide 2,3-*p*-Dioxanethiol S,S-bis(0,0-diethyl-phosphorodithioate) [Hercules 528] on and in Mature Lemons and Oranges.

W. R. DIVELEY, A. H. HAUBEIN, A. D. LOHR, AND P. B. MOSELEY. Two New Organophosphorus Derivatives of *p*-Dioxane with Excellent Insecticidal and Acaricidal Activity.

S. A. HALL. Insect Attractants.

Now—for direct application . . .

highest quality..

granulated triple super



Just one trip across the field with this dustless, easy-to-handle, granulated 0-45-0 will make a repeat customer out of a trial user. Cash in now on spring sales.

Builds customer satisfaction and repeat sales

You'll like the compliments you'll get after your customers have tried your new 0-45-0 from International for the first time.

Look at typical comments from users of this high-quality triple:

"It sure goes on easy." (You bet it does! It's granulated for easy going through any fertilizing rig.)

"Pleasure to use." (Yes . . . and just one downwind trip across the

field will prove it to anyone . . . will build more repeat sales than a dozen sales talks.)

"Saves time and money." (Now your customers can avoid breaking up lumps in the bag or stopping in the middle of a field to kick a clogged-up rig. Easy to handle . . . just fill the fertilizer hopper and push off. Easy to put on.)

What's more, agronomists can

tell you the high availability of this superior product delivers results that build farmer satisfaction and repeat sales. The reason: special processing and manufacturing care produces a triple that resists reversion in the soil . . . supplies growing plants the phosphorus they need when they need it.

Call or write International today for samples and complete details.

free-flowing...top-performing
that sells itself on sight

*bagged under your own label...
shipped direct to your dealers**

Here's a new triple super you'll be proud to add to your own line of fertilizers . . . the new, granulated 0-45-0 from International Minerals and Chemical.

This superior triple can be shipped in bulk, or International will be happy to have it bagged in adequate quantities under your own label . . . ship direct to your own dealers, too, if you like.

Here's what this can mean to you:

- A top-quality triple super that carries your own private label and complements the rest of your line.
- A modern, easy-to-use, top-performing triple super that will bring you increased

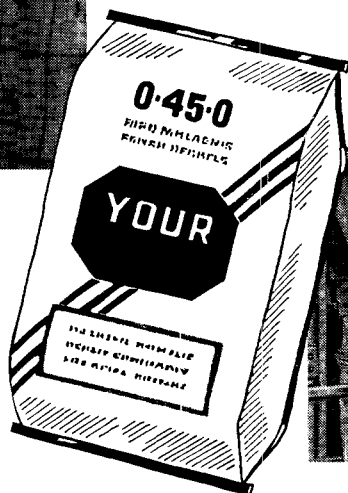
customer satisfaction and plenty of repeat sales.

- The unbeatable convenience of distributing this high-quality product under your own brand name direct to your dealers without touching a single bag.

What's more, you'll find that dealing with International is a pleasure. You'll appreciate the friendly cooperation from International's transportation department . . . the fast service . . . and the reliability of supply.

See your International triple-super sales representative soon for complete details on minimum order requirements, price and delivery information. He'll be glad to show you samples. And one look at this new 0-45-0 will show you why you can't get a better deal than this new triple super now available for direct application sales.

**subject to minimum
order requirements*



Profit now from this superior 0-45-0. Bagged under your own brand name.

Superior texture of this new triple super, put up in your own bags, stores without caking. It's granulated for easy going through any fertilizer attachment.



PHOSPHATE CHEMICALS DIVISION
INTERNATIONAL MINERALS & CHEMICAL CORPORATION

General Offices: 20 North Wacker Drive, Chicago 6

F. A. GUNTHER, R. C. BLINN, M. J. KOLBEZEN, AND R. A. CONKIN. Ammonia. II. Sorption of Ammonia by Fruits and Vegetables in Dynamic Systems.

F. A. GUNTHER, R. C. BLINN, J. H. BARKLEY, M. J. KOLBEZEN, AND E. A. STAGGS. Ammonia. III. Generation of Ammonia for In-Package Fumigation.

EDGAR SELZ AND PAUL LINDNER. Recent Developments in Pesticide Formulations.

JOSEPH F. TREON, EDWIN E. LARSON, AND JOHN CAPPEL. The Toxicity of Technical, Sublimed Aldrin When Inhaled by Animals.

LEGRANDE C. ELLIS, THOMAS L. BAHLER, J. LEGRANDE SHUPE, GEORGE E. STODDARD, LORIN E. HARRIS, AND D. A. GREENWOOD. The Physiological Effects of Feeding Residues to Cows and Calves.

BERNARD E. CONLEY. Contribution of Pesticides to Accidental Poisoning.

Symposium on Methods for Analysis of Pesticide Residues

Joint with Division Analytical Chemistry.

THURSDAY MORNING

Louis Lykken, Presiding

LOUIS LYKKEN. Introductory Remarks.
F. A. GUNTHER. Development and Status of Modern Analytical Methods for

Pesticide Residues in Crops and in Foods.
T. H. HARRIS. Analytical Method and Residue Data Requirements for Federal Registration of Pesticide Formulations.

J. A. NOONE. Residue Determinations—A Limiting Factor in Pesticide Usage.

C. H. VAN MIDDELEM. Some Basic Principles Involved in Obtaining Valid, Useful Pesticide Residue Data.

LOUIS LYKKEN, L. E. MITHCELL, AND S. M. WOGERD. Important Considerations in Collecting and Preparing Samples for Residue Analysis.

J. M. BANN. Extraction and Clean-up Techniques in Residue Analysis.

R. H. CARTER. Determination of Organic Chlorine Residues Resulting from Insecticide Applications.

M. S. SCHECHTER. Colorimetric Methods for the Determination of Pesticide Residues.

Discussion.

THURSDAY AFTERNOON

C. H. Van Middlelem, Presiding

C. H. VAN MIDDELEM. Introductory Remarks.

P. A. GIANG. Enzymatic Methods for the Analysis of Organo-phosphorus Insecticides.

J. E. DEWEY. Utility of Bioassay in Determination of Pesticide Residues.

G. E. POLLARD. Application of Infrared Spectrophotometry to the Determination of Pesticide Residues.

H. P. BURCHFIELD AND P. H. SCHULTZ. Applications of Zincke Reaction to the Analysis of Pesticides Containing Active Halogen Atoms.

Discussion.

J. R. LANE, D. K. GULLSTROM, AND J. E. NEWELL. Adaptation of Residue Methods to Include New Vegetables or to Extend the Sensitivity Range—Extension of the Residue Methods for Maleic Hydrazide and Alanap.

J. M. BANN, S. C. LAU, J. C. POTTER, H. W. JOHNSON, JR., A. E. O'DONNELL, AND F. T. WEISS. Determination of Endrin in Agricultural Products and Animal Tissues.

T. G. BOWERY AND F. E. GUTHRIE. TDE and Endrin Residues on Tobacco—The Isolation and Identification of TDE Residues in Cigarette Smoke.

H. C. AUSTIN, JR. AND F. L. BONNER. Determination of Trace Quantities of Lindane in Poultry Tissue.

E. L. STANLEY, I. ROSENTHAL, AND C. F. GORDON. The Microdetermination of Rhothane (TDE, DDD) in Spray Residues.

Discussion.

FRIDAY MORNING

Louis Lykken, Presiding

LOUIS LYKKEN. Introductory Remarks.
G. R. BOYD. The Determination of Residues of *O*-2,4-Dichlorophenyl *O,O*-Diethyl Phosphorothioate ("V-C 13 Nemacide") by Cholinesterase Inhibition.

L. E. PALMER AND E. F. WILLIAMS. Analysis of Thimet and Its Metabolites.

C. H. VAN MIDDELEM AND R. E. WAITES. Pesticide Residues: Enzymatic Determination of Systox in Collards, Lettuce, and Mustard by Use of Cholinesterase Inhibition Technique.

C. L. DUNN. An Analytical Method for the Determination of 2,3-*p*-Dioxanedithiol *S,S*-Bis(*O,O*-Diethyl Phosphoro-dithioate) (Hercules 528).

P. A. GIANG AND M. S. SCHECHTER. A Colorimetric Method for the Estimation of Guthion Present in Cotton Seed Residues.

R. P. GIGGER. Determination of Diazinon Residues.

W. E. WHITEHURST AND J. B. JOHNSON. The Determination of Crag DCU Residues in Crops and Soil.

J. R. LANE. A Colorimetric Microdetermination of Spergon (2,3,5,6-Tetrachlorobenzoquinone) Residues on Food Crops.

R. J. LACOSTE AND G. T. MYERS. Colorimetric Determination of Dithiocarbamate Residues.

J. E. NEWELL, R. J. MAZAIKA, AND W. J. COOK. The Microdetermination of Phygon in Water.

J. R. LANE. A Colorimetric Microdetermination of Phygon (2,3-Dichloro-1,4-Naphthaquinone) Residues on Food Crops.

Discussion.

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FRIDAY AFTERNOON

C. H. Van Middlelem, Presiding

C. H. VAN MIDDELEM. Introductory Remarks.

J. H. BRUMBAUGH AND D. E. STALLARD. Colorimetric Method for Perchloroethylene; Determination of Residual Perchloroethylene in Fumigated Wheat.

D. E. STALLARD AND J. H. BRUMBAUGH. A Study of Residual Benzene in Wheat Following Fumigation.

R. H. CARTER. A Method for the Determination of Ethylene Dibromide Resi-

dues in Fumigated Materials.

CALVIN MENZIE. Determination of *m*-Dinitrophenolic Pesticides.

B. D. HILTON AND M. H. J. WEIDEN. Modification of the Analysis for Oxex on Apples.

J. R. LANE, D. K. GULLSTROM, AND J. E. NEWELL. Determination of Duraset (*N*-Metatolyl Phthalamic Acid) Residues in Fruit Crops.

R. B. BRUCE, J. W. HOWARD, AND J. B. ZINK. Determination of Diphenylamine Residues on Apples.

F. A. GUNTHER, R. C. BLINN, M. J. KOLBEZEN, C. W. WILSON, AND R. A.

CONKIN. Ammonia I. Spectrophotometric Techniques and Equipment for Evaluating Concentrations of Spectrally Absorbing Vapors in Dynamic Systems.

H. C. AUSTIN, JR., F. L. BONNER, AND E. A. EPPS, JR. Spectrophotometric Determination of Arsenicals on Plant Material.

PEOPLE

New VP's at Spencer

J. C. Denton has been named vice president-agricultural chemicals for Spencer Chemical. He was formerly general works manager. In his new position, Denton will be responsible for production and sales of all of the company's agricultural chemicals. John R. Brown, Jr., who has been



J. C. Denton



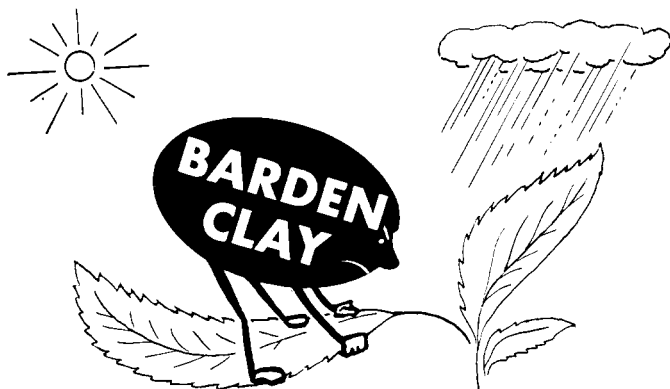
J. R. Brown, Jr.

manager of research and development, was named vice president-research and development. Joe E. Culpepper, John P. Miller, and C. Y. Thomas, all of whom have been vice presidents and directors for several years, will be concerned with divisional coordination at a policy level and with long range planning for future growth. Other newly elected vice presidents are: H. R. Dinges, for industrial chemicals; Frank Pyle, for plastics; and E. V. Friedrich, for administration.

Arthur M. Griswold, who has been section superintendent of Dovicide fungicide and bactericide products, has been promoted to manager of foreign research operations of Dow Chemical's executive research staff.

Willard C. Lighter has been elected executive vice president of Glidden Co. He has been vice president, director, and general manager of the chemurgy division.

Thornton F. Holder has been appointed director of research for Diamond Alkali, succeeding Albert W. Meyer. Holder joined the company in 1946 as patent counsel. His appointment reflects a realignment of research responsibilities, with patent, trademark, and research under one executive head.



THE BEST DILUENT COSTS NO MORE

Superior results *plus* competitive price put Barden Clay ahead of ordinary diluent-carriers. That's why leading insecticide producers standardize on Barden. Approximately 90% of Barden Clay particles are less than 2 microns — providing efficient dispersion, more surface area, increased potency of toxicant dust. Barden blankets both top and bottom of the leaf. In wettable powders, its high colloidal value offers superior suspension properties. Non-alkaline, it is compatible with organic toxicants.

Why be satisfied with less than the best, when the best costs no more? Barden Clay, the scientifically-prepared diluent, adds *extra power* to your product... *extra punch* to your sales. Samples on request.

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World's Largest Producer of Aerfloted Kaolin Clay

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✓	Improved dispersion
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✓	Better coverage
✓	Better retention
✓	Higher mortality
✓	Greater uniformity
✓	Maximum economy