

Industry

New Ag Chemicals Lab for Hercules

Modern design and contamination-free feature emphasized

HERCULES POWDER CO. last week served formal notice that it intends to continue to play an important part in the agricultural chemicals business. Concrete evidence of this intention was the official opening of a new agricultural chemicals laboratory where new compounds already are being tested and can be evaluated at the rate of more than 100 a month in more than 300 different formulations.

The entire laboratory building is air-conditioned. Air temperature and humidity conditions can be controlled within narrow limits to assure uniformity of growth of test organisms and uniform conditions of testing. Major fields of activity are (1) the screening of chemicals for insecticidal activity; (2) fungicidal activity; and (3) all plant regulatory effects.

The laboratory, planned with special care, is laid out to give special attention to avoiding contamination. It is on the same grounds with the Hercules experiment station, but located some distance away to avoid any contamination of tests by fumes or other materials from the station. The interior of the laboratory is arranged so that only compounds designated for a test get into the specified laboratory—no contact of insecti-

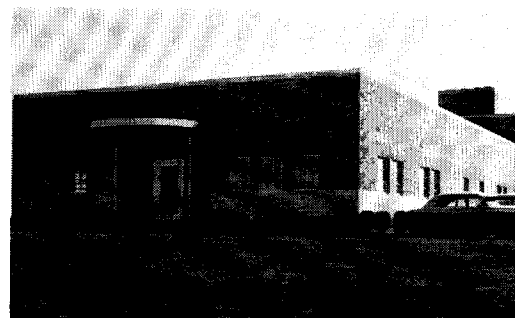
cides or fungicides with the herbicide tests and vice versa.

A group of chemists at the main experiment station under A. D. Lohr synthesize new compounds which then are sent to the agricultural chemicals laboratory, staffed by entomologists, plant pathologists and physiologists, agronomists, and horticulturists under E. N. Woodbury. Formulations are made up in a special laboratory room and sent to the testing laboratories for application to fungi, insects, or plants grown in the various rearing and growing rooms included in the new unit. Special spray equipment has been designed and built by Hercules for some of the tests.

Growth and efficiency are observed in the fungicide room, tropical room, or greenhouse, depending on desired conditions. The greenhouse is designed to prevent contamination of one type of material by another during movement of specimens as well as growth periods.

In addition to the main laboratory building and greenhouses, field test plots are laid out nearby where the new insecticides, fungicides, and plant regulatory chemicals can be evaluated under conditions approximating commercial usage.

Richard Yates, in charge of sales and



New agricultural chemicals laboratory of Hercules Powder at Wilmington, Del., was shown to the press recently

research activities of the agricultural chemicals group, said the new installation will enable a great increase in the amount of screening by Hercules and broaden scope of company's activities.

People

Bear to Retire as Rutgers Soils Department Head

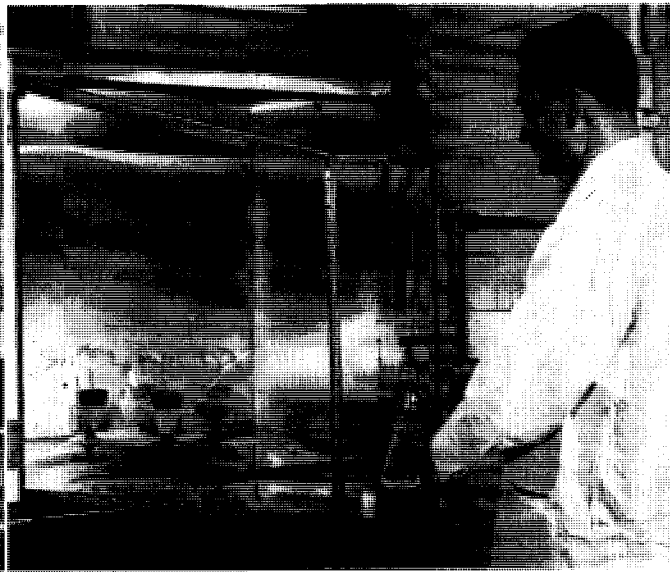
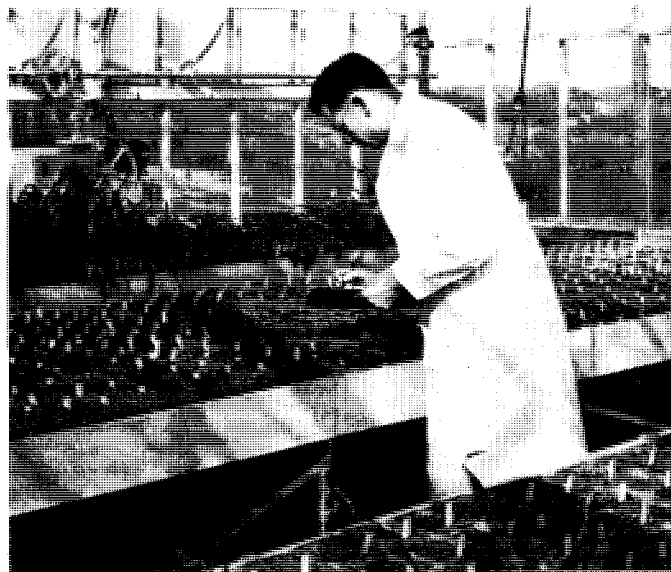
Firman E. Bear, professor of agricultural chemistry and chairman of the soils department at the New Jersey Agricultural Experiment Station, Rutgers University, will retire June 30. He

plans to continue as editor-in-chief of *Soil Science* and will maintain an office on the Rutgers campus. After his retirement, Dr. Bear plans to visit South America. Since he took over the soils depart-



E. N. Woodbury, supervisor of research at the new Hercules' farm chemicals laboratory, checks progress of work on herbicide formulations in the greenhouse. Right: Hugh C. Palmer, plant pathologist, sprays tomato plants in the new Hercules

lab. Plants are placed on turntables in the hood while being sprayed. After spray is dried, plants will be sprayed with a plant fungus and placed in constant temperature cabinets to allow fungus to develop



ment 14 years ago, graduate work has grown from two students in 1940 to the present 25 students working on Ph.D. degrees and one post-doctoral student.

Perhaps the most outstanding work of the department since Dr. Bear took over its direction is the recently completed work on trace elements. Dr. Bear took his Ph.D. at the University of West Virginia as head of the soils department. From 1916 to 1929 he was head of the soils department at Ohio State and from 1929 to 1938, director of agricultural research for American Cyanamid.

Adler Elected Victor VP in Charge of Chemical Research

Howard Adler has been elected to the newly created post of vice president in charge of chemical research for Victor Chemical Works. Dr. Adler, who has been with Victor 31 years, formerly served as the company's chemical director. Other new officers elected at

the same time are: Tolman G. Everett, vice president in charge of finance; Morris R. Stanley, vice president and director of sales; Herbert A. Flodin, comptroller; and Fred W. Hansen, secretary. Mr. Everett succeeds William D. Webster, who is retiring after 38 years with Victor, and Mr. Stanley replaces Otto H. Raschke, who is also retiring. Both retiring officers will continue as members of Victor's board of directors.

Walter Drobot and **Charles W. Schneider** have joined the research laboratory of Swift's plant food division at Calumet City, Ill. Dr. Drobot recently received the Ph.D. degree in chemical engineering from Iowa State College. Schneider has been a member of the company's control laboratory staff for over three years.

Victor R. Kaschula of South Africa has been appointed associate research specialist in animal pathology at the

New Jersey Agricultural Experiment Station.

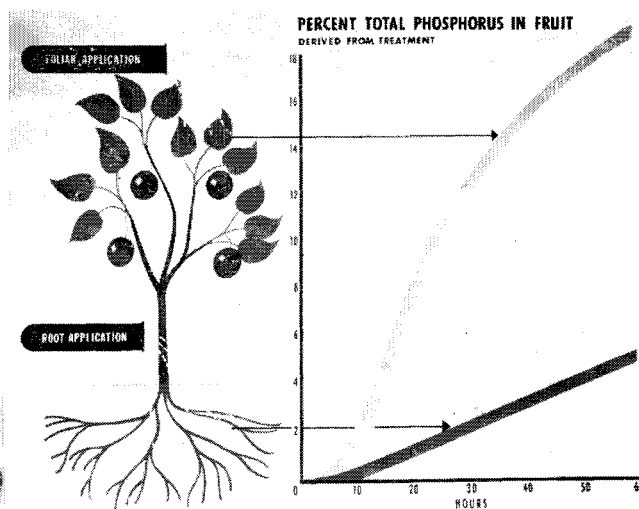
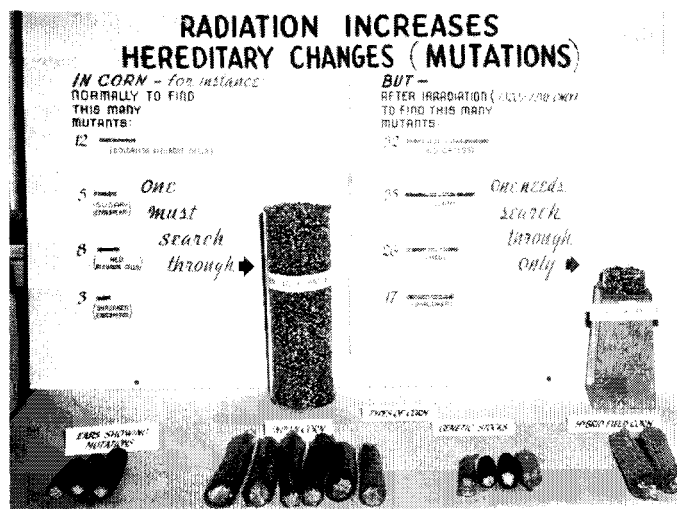
Schuyler E. Tylee has been elected president of Jacques Wolf & Co. **Gerald J. Desmond** is the new vice president, treasurer, and general manager. **Arnold Pfister** has been elected secretary and plant manager.

Jean G. Smith has joined the research and development division of Davison Chemical. She has been doing post-doctoral research at Johns Hopkins University.

T. W. Sharp has been appointed manager of the newly created flexible Packaging Materials Division of Bakelite Co., a division of Union Carbide & Carbon Corp.

Murry C. McJunkin has been appointed to direct the development activities of U. S. Steel in agronomy work. Dr. McJunkin has been an agronomist with the Coke Oven Ammonia Research Bureau.

On the Cover



Isotopes in Agriculture

Weapons and atomic power are by no means the only results of research in atomic energy. A few examples are shown from an AEC exhibition shown recently to the public in the USDA building. On the cover, the autoradiogram shows the distribution of a radioisotopically labeled element applied to the leaves of the mother plant of a strawberry vine as it is transferred to the daughter plants. Above, the diagram and chart show how isotopes are used to compare the uptake of elements from foliar and root application.

Radiation also is used to produce a high incidence of mutations in the search for better hybrids. At right is a mechanical system developed for isotopic studies of the contribution of various compounds to milk production.

