

located near Belfast. A throughput rate of 250 to 320 gallons per hour has been achieved. Processing temperatures of 146° to 150° F., with a holding time in the region of two minutes, will accomplish a 99.99% kill of the original flora without significantly impairing the functional properties of the liquid, said N. R. Knowles, of Queen's University.

Spoilage organisms associated with the genera *Pseudomonas* and *Proteus* and the coli-aerogenes group are eliminated by the heat treatment process and the residual viable flora consist of small numbers of relatively inert cocci, said Knowles.

"Apart from considerations of improved keeping quality in heat-treated liquid egg, a fundamental effect is the destruction of pathogenic organisms belonging to the food poisoning group," said Knowles. He admitted that from the viewpoint of sponge manufacture there is a slight regression in raising quality in the pasteurized egg product.

The bacterial counts in the mixed egg pulp prior to freezing are frequently high and although there is an appreciable

decrease in the count on freezing, in the frozen product it is still in the order of many millions per gram, according to C. L. Heller of the British Ministry of Food.

An antibacterial substance, effective against *Streptococcus faecalis*, *Staphylococcus aureus*, *Salmonella dusseldorf*, and *Salmonella typhimurium*, is produced when *Pseudomonas fluorescens* is grown in the presence of egg yolk, said Heller. He pointed out that his experiments indicate that egg white, either as such or mixed with yolk, is capable of destroying the large number of *Micrococcus* organisms that are likely to contaminate the pulp.

**Eggshell Fundamentals.** A diet deficient in calcium will cause a bird to draw calcium from the bone and will cause the bird to stop laying after about 10 days, reported Cyril Tyler, Reading University. An excess of calcium in the diet will lead to soft shell and other abnormal types of eggs, he pointed out. Sulfanilamide inactivates the carbonic anhydrase enzyme system and interrupts egg production.

stricker of the University of Georgia, and W. J. Darby of Vanderbilt University.

On the same day in Los Angeles, scientists gathered for lunch and the unveiling of the plaque in the board room of the Sunkist Building. Honor guest for the celebration was Robert A. Millikan, president emeritus of the California Institute of Technology. Capt. (ret.) Louis H. Roddis of the Navy Medical Corps, Lind's biographer, delivered a short informal talk.

### Industry

#### Wyandotte Opens New Research Labs

Wyandotte Chemicals Corp. put its new research center at Wyandotte, Mich., into full operation on June 7, almost two and a half years after preparation of the 5-acre site began.

The new building is 172 feet long and 322 feet wide, two stories high, and with a full basement. The building houses laboratories for analytical, food technology, industrial, inorganic, laundry and textile, organic, and nucleonics research. In addition, there is space for administration offices, a meeting room that seats 150 people, market research, patent attorney's offices, and a library and reading room.

Flexibility is perhaps the outstanding feature of the building's design. This was achieved in the laboratory sections by designing the building to a 10-foot module (each module has two exterior

**A member of Wyandotte's food technology department tests the sugar content of cane juice as part of study which is developing new methods for reducing loss of sugar through action of microorganisms during milling**



## International Commemoration Of Scurvy Cure Discovery

Scientists gather in Los Angeles and Edinburgh, Scotland, to unveil plaques honoring James Lind, discoverer of scurvy cure

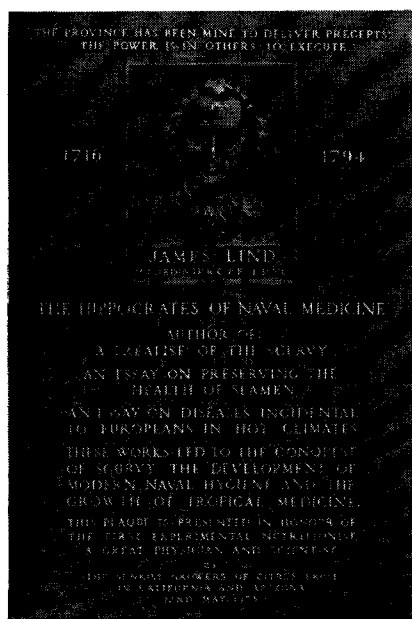
IDENTICAL bronze plaques honoring the memory of James Lind, whose studies with citrus fruits led to the conquest of scurvy, were unveiled on the same day late last month at the University of Edinburgh in Scotland and in the Sunkist Building in Los Angeles.

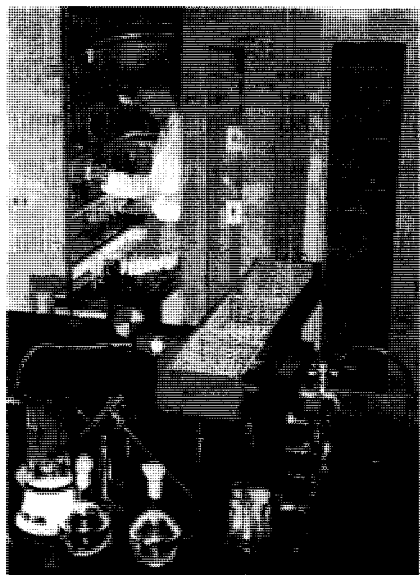
The ceremonies commemorated the 200th anniversary of the publication, in May 1753, of Lind's book, "A Treatise of the Scurvy." Lind, a naval surgeon, graduated from the University of Edinburgh and practiced in Edinburgh during the time between his two periods of service in the British Navy. His work in hygiene and preventative medicine are said to have contributed as much to the downfall of Napoleon as did Lord Nelson's victory.

Charles Glenn King of Columbia University, who first isolated vitamin C, presented the plaque to the University of Edinburgh on behalf of Sunkist Growers. The celebration in Scotland consisted of a two-day conference of the Nutrition Society and the presentation of the honorary degree of doctor of laws to Surgeon Vice Admiral (ret.) Sir Sheldon Dudley, medical director of the Royal Navy during the war.

The two-day conference was devoted to a symposium on ascorbic acid and scurvy, with papers on the past, present, and indications of the future work in these fields.

Other American participants in the program at Edinburgh were: S. Burt Wolbach of Harvard, V. P. Syden-





Modern bacteriology laboratory at Wyandotte's research center has three walk-in incubators, thermostatically controlled at any desired temperature, and a special inoculation room. Cultures of many bacteria are maintained for evaluating new germicides

windows). In this way, laboratory rooms can be enlarged or divided in units of 10 feet.

The food technology department of the laboratory, like other sections, is served by water (hot, cold, and de-ionized), steam, and compressed air pipes and electricity. A pair of outlets for each of these services is located at 10-foot intervals. The food technology department, incorporating the food technology and bacteriological sections, specializes in detergency research, which is considered in the broadest sense. In addition to testing detergents used in restaurants, canneries, beverage bottling plants, fruit and vegetable cleaning, and in the home, the department also conducts research pertaining to cleaning in the metals industries.

The bacteriological section has walk-in incubators and a special inoculating room. In addition to these rooms, all air coming into the laboratory is completely filtered, washed, and brought to the proper humidity and temperature.

### Mathieson-Squibb Buys Research Farm

The recently established Mathieson-Squibb Institute of Chemical Research and Engineering has acquired a 350-acre farm outside Baltimore, Md. Tentative plans have been announced to use the land and farm buildings as a highly developed experimental farm for research and testing programs of the company's varied agricultural products.

Eventually the area will be developed into a research center and headquarters for Mathieson's varied research activities.

### W. R. Grace to Buy Thurston Chemical

W. R. Grace & Co. has completed negotiations to acquire Thurston Chemical Co., contingent upon approval of Thurston's stockholders. Thurston Chemical is a manufacturer and distributor of superphosphate fertilizers and mixed commercial fertilizers in Missouri, Kansas, Oklahoma, Iowa, Arkansas, Illinois, Minnesota, and Nebraska. Thurston has plants in Atlas and Trenton, Mo.; West Tulsa, Okla.; and Lawrence, Kan.

Plans call for William R. Thurston, president and treasurer of Thurston Chemical, to become president and a director of Naco Fertilizer Co., a wholly owned subsidiary of W. R. Grace. Naco manufactures mixed fertilizers, sulfuric acid, superphosphate and concentrates, and insecticide blends. Naco operates plants and farm stores in North and South Carolina, Florida, and Ohio. Naco's headquarters, now in New York, are scheduled to move to Joplin, Mo. after the merger is accomplished.

### MCA Labeling Manual Available for \$1.00

The Manufacturing Chemists' Association Labeling Manual is available for \$1.00 not \$1.20 as reported in AG AND FOOD May 27, page 360. Copies can be obtained from the Manufacturing Chemists' Association, 246 Woodward Bldg, Washington 5, D.C.

### NFA Warns Against False Claims for Liquid Fertilizer

The National Fertilizer Association has warned that the consuming public must be on guard against the wide spread fallacious claims being advanced for liquid fertilizers for garden use. NFA issued the warning in support of previous statements by the Association of American Fertilizer Officials and the Better Business Bureau. All three of these organizations have recently issued statements regarding the claims of promoters of the liquid fertilizer formulations.

The NFA says: "Commercial fertilizers, liquid or dry, are of great benefit toward improving the productivity and quality of vegetables and flowers raised by the home gardener, but many of the statements currently being made about some liquid fertilizers contain absolute misrepresentations of fact."

The NFA specifically warned against

the untruth of the following claims: that liquid fertilizers contain radioactive materials, that they are superior to the more common dry fertilizers, that they are more economical, and that they achieve instantaneous results.

### Givaudan Opens New Laboratories

New laboratories, one of them for compounding and testing bactericides, germicides, and fungicides, have been opened by Givaudan Corp. The laboratories are located on two recently opened floors to the building erected in 1951 in New York.

The two floors house the company's executive offices and 10 laboratories. Largest of the laboratories is the one used by the analytical department, which maintains chemical control of all material entering and leaving the factory.

In the bacteriology and biology laboratory are an incubating room for maintaining cultures at standard temperatures and a sterile room for conducting experiments under aseptic conditions.

### Lunsford, Hayes-Sammons Organize Insecticide Sales Firm

A new insecticide sales firm has been organized in Texas under the joint ownership of C. S. Lunsford, former manager of agricultural chemicals for W. R. Grace & Co. of West Virginia, and Hayes-Sammons Co. of Mission Tex. The new company, Empire Chemical & Supply Co., Inc., will market various insecticide formulations manufactured by Hayes-Sammons Co. and Reynoso, Mexico.

Mr. Lunsford has also organized a second company, Empire Chemical & Supply Co., which he owns entirely. This firm has already established outlets in Mexico and several South American countries. Offices of the new company are located at Mission, Tex., and 420 Market St. in San Francisco.

### Merco Centrifugal to Sell Westfalia Separators

Merco Centrifugal Co. of San Francisco is now the sales representative in chemical and food industry applications for centrifuges made by Westfalia Separator, AG, of Oelde, Germany. Centrico, Inc., of Englewood, N. J., is the sole distributor of Westfalia centrifuges in this country.

Westfalia's line of industrial centrifuges includes the following types: liquid-liquid separators, liquid-solid separators, clarifiers, extractors, and liquid-liquid-solid separators. In addition, Westfalia makes a laboratory cen-

trifuge with four interchangeable rotors, which tests practically all separations performed by various commercial separators.

Merco will maintain a stock of Westfalia centrifuges and replacement parts.

### Caption Corrected

An error occurred in the caption above the photograph on page 355 of the May 27 issue. The man on the right is Jules Porsche of Armour & Co., not H. E. O. Heineman of Pet Milk Co.

## Government

### Record Outbreak of Army Worms Threat to Spring Crops

The unusually humid spring has been blamed as one of the causes for the particularly heavy outbreak of armyworms in Maryland, Pennsylvania, Indiana, and Tennessee.

The Department of Agriculture reports that the army worms constitute a serious threat from Missouri to Delaware, warning that with continued conditions favorable to the worms, damp cool weather, a severe outbreak can be ex-

pected in the southeastern part of Pennsylvania. In one Pennsylvania county counts in the heavy grass have yielded as many as 174 per square foot.

In Indiana the worms have destroyed whole fields of young corn and are now migrating into new wheat fields causing much damage.

The USDA reports that it has had a record breaking number of inquiries regarding control of the pests. It has recommended poisoned baits and also preparations of toxaphene and DDT in dusts and sprays.

### Agriculture Reorganization Plan Passes House— Goes into Effect

The Administration's program for reorganization of the Department of Agriculture was approved by the House of Representatives June 3. The plan had previously been approved by the Senate and became effective following House passage. The plan as approved calls for three additional assistant secretaries for the department and gives Secretary Benson the authority to reorganize the functions of the department without further Congressional approval (AG AND FOOD, April 1, page 22).

Following the House action, Secretary Benson issued a statement expressing his appreciation of the legislative approval. He promised that no radical changes would be made in the immediate future but rather that he plans a careful and prolonged study of every branch of the department.

It is expected that John H. Davis, present head of the Commodity Marketing and Adjustment Group, and Romeo Short, present head of the Foreign Agricultural Service will be named as the new assistant secretaries. The other new post, that of Administrative Assistant Secretary, will probably be filled by Richard D. Alpin who has been head of the Departmental Administrative Group.

Secretary Benson has already prepared a memorandum to temporarily maintain the organization of the department as it existed before approval of the administration plan. This memorandum is intended to keep the Department functioning smoothly until decisions can be reached regarding specific changes to be made under the reorganization plan.

## People

**Domenic DeFelice** has been appointed to the newly created position of research manager for General Foods' associated products divisions. He has been with General Foods since 1943 and became laboratory director of product and process development last January.

**Charles E. Wilson**, the former president of General Electric and first chairman of the Defense Mobilization Board, has been elected board chairman of Grace Chemical Co. He is also chairman of the executive committee of the board of directors of W. R. Grace & Co., parent company of Grace Chemical.

**Roger W. Roth** has joined Velsicol Corp. as sales manager for the agricultural chemicals division. He has been associated with the agricultural chemicals division of Commercial Solvents.

**Roger W. Roth** George W. Suave and Howard S. Beaudoin have also joined Velsicol's sales staff to represent the company in the West.

**Frank W. Parker** has resigned as chief of USDA's soils service to become chief agriculturalist, Technical Cooperation Administration, Foreign Agricultural Service, USDA. He will also become advisor to the Minister of Food and Agriculture in India.

**Albert Schatz** has been appointed director of the new research laboratory at National Agricultural College Farm School, Pa.

### President Tours Beltsville

President Eisenhower and Secretary Benson inspect one of the prize dairy cows at The Department of Agriculture's Research Center, Beltsville, Md. The President toured the Research Center May 28, inspecting some results of research applied to agriculture. Among them: hot weather adaptable cattle, a variety of lean meat pigs, DDT resistant flies, and an automatic egg grading machine. Climax of the tour was the luncheon featuring improved foods developed in the laboratories of the Agricultural Research Administration. (Ag and Food, May 27, page 351)

