

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-

