

TECHNOLOGICAL RESEARCH IN SERVICE LABORATORIES

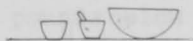
Ketchikan, Alaska

Methods for determining vitamin B₁ and B₂ have been reviewed and work started on a method for riboflavin. Several modifications have been made to reduce the cloudiness in the final fluorescing solution.



Boston, Mass.

Experiments are being made with an air separation device for grading sardines into various sizes. The variation in size causes considerable loss during the preparation of the pack and accounts for overcooking of the smaller fish. An efficient device for size-grading would be of immeasurable value to the industry.



College Park, Md.

Interest in the packaging of fishery products remains high, and numerous requests for packaging information have been received. A representative of a package manufacturing concern that serves a large part of the southern fishing industry visited the laboratory to obtain information on package requirements and offered to supply containers for experimental use.

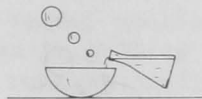
Work on the toxicity of DDT is being continued. To date, the results indicate that the insecticide behaves as a cumulative poison when the birds are fed DDT-treated crab meal in the ration. This finding is contrary to previous reports by other investigators.

A special apparatus has been designed for blowing oil at constant high temperatures not attainable by the use of an open thermo-regulated bath. The device is made of pyrex glass and utilizes the hot vapors of boiling and refluxed constant-boiling petroleum fractions to heat the fish oil and maintain it at a constant temperature.

Preliminary blowing tests show that color is depleted to a certain point by blowing with oxygen, but thereafter, the oil darkens rapidly. Removal of soaps improves the final color. Bleaching the oil to a lighter initial color or stopping the oxidation after the first bleaching (while blowing) and finishing the polymerization under nitrogen results in a lighter colored oil.

Two shipments by air of fresh-shucked oysters have been made from the Hampton Roads, Virginia, area to Chicago, Illinois. In each case, the temperature rise was about $\frac{3}{4}$ ° F. per hour of shipping time. Several series of oysters on the half-shell were frozen and treated with various protective coatings. These were stored at 0° F. and will be examined periodically for quality.

In order to determine the significance of the enterococci as a pollution index, the prevalence of these bacteria in various wild and domesticated animals is being studied. Of all specimens thus far examined, the muskrat is the only one which does not carry enterococci in the intestines.



Seattle, Wash.

Periodic examinations of precooked frozen products are being made. Methods of thawing frozen fish are also being investigated.

A comprehensive study of the Carr-Price (antimony trichloride) method of vitamin A analysis has been initiated. This method is believed to be more reliably in agreement with the biological method than the ultra-violet determination.



Mayaguez, Puerto Rico

The economic survey of the fisheries of Puerto Rico is being continued. Efforts are being made to estimate the total capital investment and working capital in the Puerto Rican fisheries.

Fish poisoning investigations have been temporarily stopped until shipments of fish are received from the Virgin Islands. The Puerto Rico Agricultural Company has resumed its fishery operations, and the first shipment of fish is expected in the near future.

