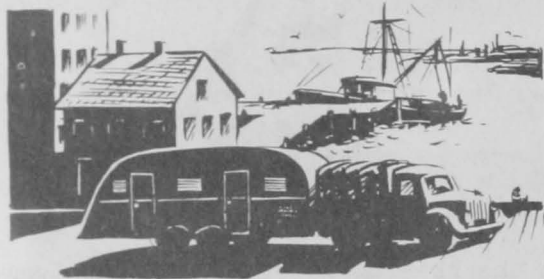


# TECHNOLOGICAL RESEARCH IN SERVICE LABORATORIES

## AUGUST 1946

### Boston, Mass.

A staff member of the Boston Laboratory, assigned to the study of Maine sardines, returned from a survey of the Norwegian sardine industry. A number of procedures not in use in the United States were observed, and it is thought that some of these will be adaptable to the industry in Maine to improve the quality of the sardine pack there. They will be given a thorough test.



An experimental smoking device, employing high frequency electric current to deposit smoke on sardines, is being set up in Eastport, Maine. If this experiment is successful, it will be possible to reduce the smoking time for sardines considerably, thus improving the quality of the pack.

The mobile laboratory which is assigned to the Boston office is now being used at New Bedford as headquarters for a sanitary survey of the fish handling operations in that section.



### College Park, Md.

Samples of crabmeat that had been packaged and frozen during July were examined during August. The crabmeat stored in perforated cans showed slight desiccation near the perforations. This did not occur in the heat-sealed containers. The crabmeat in both containers was of excellent quality.

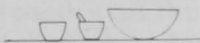
The frozen oysters that had been put up during the oyster season were examined and found to be in very good condition, with only a slight drop in the pH.

The tuna and striped bass assays for thiamine have been completed. The canned tuna, without additional oil, assayed at 39 micrograms per 100 grams of fish. The striped bass assayed at 70 to 56 micrograms per 100 grams of fish, depending on the level fed to the experimental animals. The striped bass assay will be repeated in order to obtain more uniform data. Samples of different portions of raw burbot (such as the head, liver, viscera, flesh, and skin) are being assayed for their thiamine and thiaminase content. The assay of canned Maine sardines is still in progress.

Demonstrations of the home canning, salting, and cooking of fish were given at the homemakers' conference at the Hampton Institute, Hampton, Va., from July 31

to August 2, inclusive. A talk entitled "Seafood Within the Reach of All" and the showing of two films "Home Cookery of Fish" and "The Salmon Run" were included in the program. About 30 different fish dishes were prepared during the conference and served to those attending. A class in fish cookery was conducted at the Quartermaster Subsistence School in Chicago on August 21 for a special group of Air Force officers.

A conference to deal with the mytilotoxine problem was held with representatives of several Federal and industry organizations. A committee will be set up to coordinate the activities of research workers in this field.



## Mayaguez, Puerto Rico

Studies dealing with fish poisoning have been continued. In one recent outbreak, it was impossible to obtain samples of the fish that were supposed to have caused the poisoning. In another outbreak, which had more the appearance of being common food poisoning rather than toxicity due to fish, samples were obtained and persons interviewed. This outbreak is still being studied.



## Seattle, Wash.

Several members of the staff of the Seattle Laboratory have been given assignments on the program of utilization of salmon waste that is being conducted at the Ketchikan Laboratory. These assignments were made because of the necessity of obtaining as large a volume of samples as possible during the operating season of the canneries. These samples will be preserved by canning and freezing and tested during the period when the canneries are not in operation. Analysis will be made of various portions of the fish that are included in the waste to ascertain whether there are any valuable ingredients which could be manufactured into marketable products.

The construction of the pilot plant addition to the laboratory is progressing. This addition contains freezing and storage rooms that will be used in further studies of freezing and packaging of fishery products.

Several samples of fish were prepared for freezing by wrapping the samples in aluminum foil for protection against oxidation and deterioration during storage. It was found that aluminum foil was considerably more difficult to handle than the cellophane that had been used in previous tests. These samples will be removed from time to time for tests to ascertain the efficiency of the protective coating.

Livers of eight fur seals were submitted to the laboratory for analysis. The livers showed an oil content ranging from .2 to 2.17 percent. The vitamin A content of the oil from the livers ranged from 13,100 to 394,000 units per gram.

This is a considerably higher vitamin potency than has been previously reported for seal livers.

The physico-chemical methods of determining vitamin A were found to disagree in certain cases where the vitamin-containing oils had been subjected to oxidation. The causes of these disagreements are being investigated further.

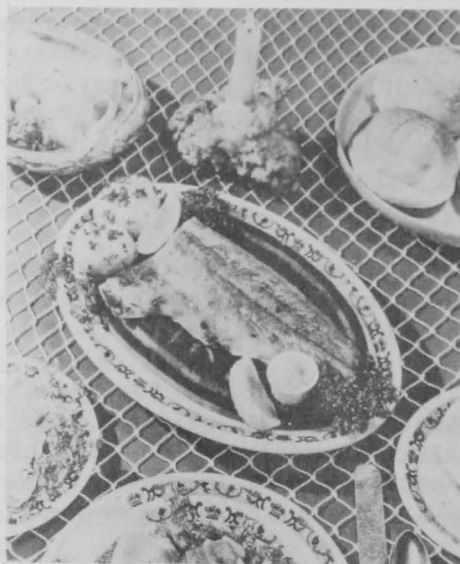
A fellowship arrangement has been completed for the study of the application of the antioxidant, N.D.G.A., in the commercial fisheries.



## PLANKING FISH

Fish suitable for either baking or broiling may be planked. One advantage of this method of preparation is that the cooked fish may be placed on the table without being transferred to a platter. The plank, fashioned from a piece of well-seasoned oak, hickory, or ash about  $1\frac{1}{2}$  inches thick, should be grooved around the edge and have several other grooves cut into the surface to hold the juices from the fish or the basting liquor. Housefurnishing stores can usually supply suitable planks.

Put the plank into a cold oven and preheat it with the oven. Remove the plank and oil thoroughly; then place the fish on it, and proceed to bake or broil.



PLANKED LAKE TROUT