

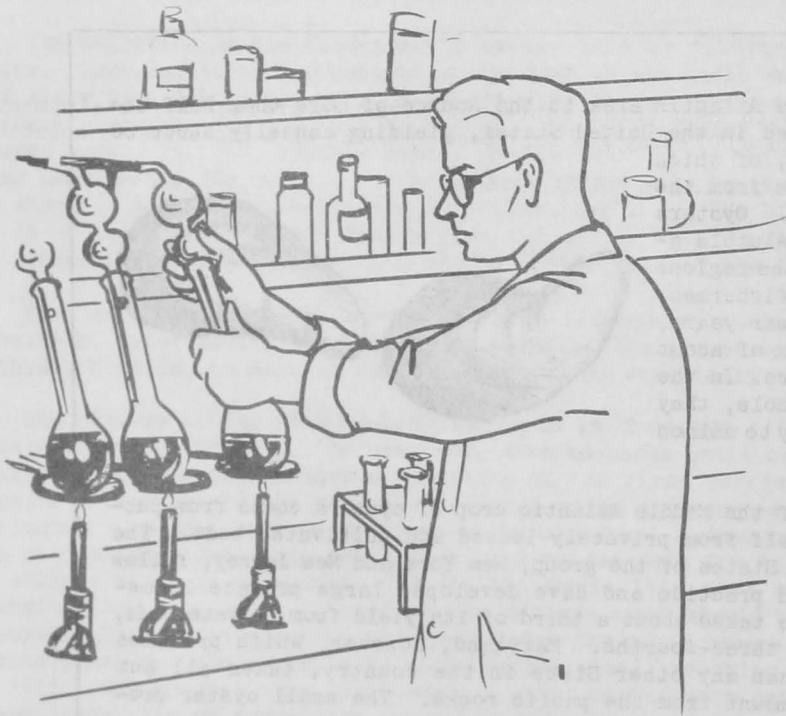
TECHNOLOGICAL RESEARCH IN SERVICE LABORATORIES

Seattle, Wash.

Extensive studies were undertaken in November on the effects of methods used in oyster-shucking plants. The data obtained were to be used to determine the probable effects of the proposed Food and Drug Administration regulations for shucked oysters. Fish and Wildlife Service representatives attended the Seattle hearings held on November 27 and 28.

Refrigeration experiments were begun to test the keeping qualities of frozen pre-cooked oyster cocktail, creamed oysters, and oyster stew. Soft shell clams from Copalis Beach, Wash., were canned experimentally in anticipation of the initial canning of this species for commercial purposes.

Service representatives participated in the presentation of a new fishery course offered by the University of Washington by presenting a series of lectures. They also conducted a fish cookery demonstration at the Parent School for Army Cooks and Bakers at San Francisco.



A bibliography on bacterial flora on fish was virtually completed.

Periodic examination of a number of stored lots of frozen fish showed that: Smelt which had received a gelatin, glycerine, and water coating were adequately protected for nine months against deterioration and probably against the development of rancidity. The pre-frozen samples took the best glaze. After six months, smelt in cans and in glazed blocks were somewhat faded and possessed a "fuel oil" odor; and incipient rancidity had set in. Vinyl film used as a fillet wrap for nine months imparted odors to fish flesh. Pacific oysters, after six months, had the same incipient rancidity, flavor, and odor as at three months, and they were more objectionable in vacuum-pack tins than in cellophane bags. Frozen pilchards, after three months in glazed blocks or in cans, had become slightly discolored; and incipient rancidity had set in.

Agar extractions from a series of weed samples collected at La Jolla at different seasons were completed, and determinations of moisture and agar yield begun.

A bibliography on vitamin A assay methods, consisting of 459 abstracts of all literature from 1925 to date, was completed.

Considerable technical assistance was rendered in connection with the federally-financed conversion of the SS Mormacrey to a factory vessel, particularly with respect to construction of fishing gear, checking drawings and conveyor systems, investigating packing machinery and materials, advising on the arrangement of the packing line and retorts, and developing a system for transferring fish from the fishing vessels to the upper deck and the fillet line.



College Park, Md.

Fishery leaflets entitled "Brine Salted Mullet" (F.L. 51) and "Dry Salting Mullet, Red Drum (Channel Bass) and King Fish (King Mackerel)" (formerly S. 27, now F.L. 136) were revised and reissued. A paper on antioxidants was revised.

Studies were begun to determine the biological value and digestibility of oyster proteins.

Work was started on a proposed fishery leaflet based on the Army's "Fish Cookery and Reference Manual," Text No. 28.

The final report on the toxicity of DDT with respect to blue crabs was completed for publication.

Conferences were held with industrial representatives regarding the development of a new type of oyster knife and a DDT spray gun for space spraying with concentrated solutions.

Examination of samples of frozen oysters stored for eight months showed that the total count of aerobic bacteria and the M.P.N. of coliform organisms present had increased over the corresponding counts for the last few months.

Samples of Maryland harbor waters were taken to determine the numbers of enterococci and coliform bacteria.

Louisiana oyster-shucking methods were investigated in preparation for the hearings on shucked oyster regulations scheduled by the Food and Drug Administration to be held in Washington on January 15-17.

The proposed Navy anchorages in the Hampton Roads area were visited to study whether they might endanger the oyster beds in the York River.

In order to determine the effect of DDT in the crab scrap meal used in their diet, 232 chicks were started on a feeding test.

A one-week fish cookery class was conducted at the Quartermaster Subsistence Research and Development Laboratory in Chicago.



Mayaguez, Puerto Rico

Arrangements to obtain samples of fish reported to be toxic were made in Salinas. Isolation and identification of bacteria which had been cultured from specimens of "poisonous fish" were continued.

A program was outlined for conducting studies on net and cordage preservation. Coconut fiber rope has been obtained from a local producer, and preliminary examinations of this product have been started.

Cooperation has been given the Insular fishery agent of the Mayaguez District in his conduct of a series of 15-minute radio talks which began with a history of the fisheries and later will cover fishery marketing problems and other fishery subjects.



Ketchikan, Alaska

Forty-five recipe tests were made, primarily with halibut, canned salmon, and oysters. Additional skeletons of Alaska rockfish were prepared as part of the project to determine the filleting characteristics of this species.

Arrangements were made for a test shipment of fresh Alaska salmon by air, but the weather prevented the delivery of fresh fish. The shipment was cancelled, and the tests will be delayed until fresh salmon become readily available.

Tests were made on the canning of smoked salmon and on the prevention of mold growth on smoked salmon that was not processed.



GENERAL GUIDES FOR SELECTING AND PREPARING FISH: Insist upon freshness. A fresh fish may be recognized by the following: firm and elastic flesh, scales that cling to the skin in most species, reddish gills free from disagreeable odor, eyes bright and full, not sunken. In selecting shellfish like clams and oysters, be sure that the shells are tightly shut, indicating that the animals are alive, unless you prefer to buy the meat separately as shucked shellfish. Crabs and lobsters should be bought alive or as cooked meat. However, uncooked shrimp may be bought in the shell provided it feels firm to the touch. Cooked shrimp is sold either with or without the shell, with the heads already removed.

WHEN TO BUY: In general, the fish of any species are of highest food quality when most abundant, for at these periods fishermen are making their catches in the shortest time and shipping them promptly. Usually, but not always, fish are cheapest when most abundant.

--Conservation Bulletin No. 38