



Progress on Projects, October 1953

FREEZING FISH AT SEA--NEW ENGLAND: The research trawler Delaware completed test cruise 24 on September 30. The purpose of the cruise was to test the refrigeration equipment and the improved brine-freezer mechanism under full-load conditions during round-the-clock fishing operations with a full crew. Fishing was carried out on Western Bank in the area of Sable Island, about 450 miles east of Boston. The vessel was at sea for 12 days, of which 8 were spent in actual fishing operations. Approximately 99,000 pounds of fish (41,000 pounds of haddock; 32,000 pounds of scrod haddock; 22,000 pounds of cod; and 4,000 pounds of miscellaneous species) were brine frozen in the round at sea and stored in the vessel's hold at about +5° F. The entire catch was sold through the New England fish exchange to firms which would use the frozen whole fish for later processing into frozen fish fillets.

The modified brine freezer gave excellent performance during the entire fishing and freezing-at-sea operation.

Data were collected on the performance of the refrigeration equipment under full-scale continuous operating conditions at sea and the costs of this type of operation were recorded for comparison with those involved for the standard iced-fish technique.

Efforts were made to improve dockside unloading of the frozen fish from the Delaware. The unloading of the 99,000 pounds of frozen fish required 11 hours. Several delays occurred which might be eliminated in the future when auctioneers, buyers, and handlers are better acquainted with the operations involved in the handling of frozen whole fish. The fish were loaded into wooden boxes, placed on pallets, then hauled by truck to the cold-storage room.

(Boston)

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VITAMIN CONTENT AND NUTRITIVE VALUE OF FISHERY BYPRODUCTS: Niacin assays were completed on 23 samples of menhaden meal and one sample of crab meal. The menhaden meals represent samples of carload lots. The results were as follows:

Meal	Number of Samples	Niacin content in micrograms per gram of meal as received		
		Minimum	Maximum	Average
Menhaden	23	34	74	54

The crab meal sample as received showed a niacin content of 33 micrograms per gram.



(Seattle)