

**NUTRITIVE VALUE OF MINOR CONSTITUENTS OF FISH OILS:** It has been suggested that the unsaponifiable fractions of fish oils contain nutritionally important minor constituents in addition to vitamins A and D. In experiments to test this possibility, control rats will be fed synthetic diets in which all the fat consists of resynthesized glycerides from purified fatty acids free from unsaponifiables. This basal diet will be supplemented for experimental groups of rats with fish-oil unsaponifiables. The effects of such diets on growth, reproduction, lactation, and other physiological activity will be noted.

This third phase of the program will not be studied until some time in the second year of the project. It will be looked upon as secondary to the other two phases. Possibly only a preliminary investigation can be made.

## LITERATURE CITED

LUNDBERG, W. O.

1957. Fish Oil Research at the Hormel Institute. Commercial Fisheries Review, vol. 19, no. 4a (April Supplement), pp. 5-8.



## FISH-OIL RESEARCH AT THE SEATTLE FISHERY TECHNOLOGICAL LABORATORY

By Phillip A. Hart

Fish-oil research at the Seattle Technological Laboratory has been directed primarily toward utilization of the unique features of unsaturation found in fish oils. (This article appeared in Commercial Fisheries Review, April 1958, and is now available as Sep. No. 508.)

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## PROGRESS ON STUDIES IN UTILIZATION OF FISH-OIL DERIVATIVES IN ORE FLOTATION

By S. R. B. Cooke

This paper describes the flotation process, the mechanism of collection, and the flotation of iron ore with fish-oil derivatives as collectors. It summarizes experimental findings to date and outlines future work. (This article appeared in Commercial Fisheries Review, January 1958, and is now available as Sep. No. 499.)

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