



DEPARTMENT OF THE INTERIOR

INFORMATION SERVICE

FISH AND WILDLIFE SERVICE

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The shark industry, which supplies about three-fourths of the nation's vitamin A, will save an estimated one million dollars during the next year as a result of a device which technicians of the U. S. Fish and Wildlife Service recently perfected for sampling livers to determine their vitamin content, Charles E. Jackson, Assistant Director of the Service, said today.

The liver sampler is a portable, electrically operated device which may be used either aboard ship or immediately after a cargo of livers is unloaded at the docks. Collection of adequate samples of the livers and analysis to determine their vitamin A potency require only about an hour, in contrast to former methods which took several days.

The vitamin potency of shark livers varies enormously, even within a single species and in different portions of the same liver, and the value of the livers varies accordingly, Mr. Jackson said. In order to obtain the correct price for their cargo, fishermen formerly had to wait several days while the livers were placed in cold storage and hard frozen for analysis by the old method. Rather than suffer this delay, fishermen often accepted a flat rate per pound for their cargo.

The electric liver sampler, which was developed by F. Bruce Sanford, Charles F. Shockey, and other technologists of the Fish and Wildlife Service Laboratory at Seattle, is used to sample either fresh or soft-frozen livers. It is essentially an electrically driven auger which is thrust into the cans in which the livers are packed. The liver samples are drawn off into a collecting bottle which is attached to the sampler.

To get an accurate evaluation of a cargo of livers, a number of samples are taken from each 5-gallon can. The sampling device can be operated so rapidly that 100 samples are obtained in a few minutes.

Mr. Jackson estimated that somewhat more than half of the firms engaged in the Pacific coast fish liver industry are now using the sampler. Because it allows buying and selling to be based on accurate knowledge of the potency of the livers, it has already done much to stabilize the industry, according to Mr. Jackson.

The liver sampler may prove useful in other fields as well. The Fish and Wildlife Service has had inquiries from other Government agencies and from private firms which are considering its adaptation to such purposes as sampling grains or frozen fruit in barrel lots.

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