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INSTITUTE FOR FISHERIES RESEARCH  
DIVISION OF FISHERIES  
MICHIGAN DEPARTMENT OF CONSERVATION  
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Nutrition Experiment with "Fishotein"

This experiment was one of a series needed to determine the nutritional value of a prepared food bearing the trade name "Fishotein".

Six young fully grown rats were used in this feeding experiment and kept under the usual conditions for nutrition experimentation.

On August 12, 1931 we began feeding them on a pure "Fishotein" diet. The supply of "Fishotein" moistened with water was replenished each day and the rats were given all that they wanted to eat. On the date that the experiment was begun the rats weighed 163, 155, 153, 148, 147, and 11 grams (average 146 grams).

On September 1, 1931, the rats weighed 120, 108, 107, 89, 119, 116 grams (average 110 grams). At this time scurvy was beginning to appear, and affected the ears.

On September 5, 1931 one of the rats died and all were weighed. They weighed 89 (dead), 130, 97, 111, 117, and 85 grams (average, 105 grams).

During the period of time that the experiment was in progress the rats were cold, sluggish and piled up to keep warm. The scurvy and emaciation became progressively worse.

The diet of the rats was changed on September 5, 1931 to one which consisted of one-half each of fishotein and rolled oats. The mixture was moistened before it was given to the rats. On this day the average weight of the five living rats was 108 grams.

On September 10, 1931 the average weight of the rats was 119 grams, on September 15, 1931 it was 118 grams, September 18, 1931 it was 116 grams and on September 19, when the experiment was terminated it was 118 grams.

As soon as the diet of the rats was changed to the mixture of oatmeal and "Fishotein" their activity became normal. They were very reluctant however, about eating the "Fishotein". The scurvy became much worse, affecting the ears and tails of the rats. Two rats became blind in one eye.

From this experiment it appears that the "Fishotein" either has very little food value or that it lacks certain vitamins necessary to animal health and growth, and that a diet of a mixture of the "Fishotein" and oatmeal is only a very little better. We suggest that the same food as last season be used at the Oden hatchery but that several troughs of fish be fed on a mixture of oatmeal and liver to find out whether this food is not as good as the mixture with the "Fishotein" added.

The nutrition experiment is being continued on landlocked salmon and the results will be sent to the Department as soon as they are available.

The experiments were performed by Dr. Wendell H. Krull, Fish Pathologist.

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