a. B. Cook INSTITUTE FOR FISHERIES RESEARCH UNIVERSITY OF MICHIGAN ANN ARBOR, MICHIGAN September 12, 1931 Report No. 90 EXPERIMENT WITH SOUR FOOD The experiment was undertaken with the idea of finding out whether soured food would kill fish. In this experiment we used equal parts of freshly ground beef liver, fishotein. and slightly cooked rolled oats. The ingredients were mixed and the mixture was left in a warm room for 24 hours. This food was fed to nine large fingerling landlocked salmon. The fish were reluctant about eating this food the first day but after that they took it as greedily as they take any food. Each day after feeding the fish the food which remained was placed in a refrigerator and was frozen most of the time. After this food had been fed for seven days the remaining food was not kept in a refrigerator but was placed in a water bath held at 60°F. The food became rank but was fed daily for ten days and the fish ate it without any hesitation. The fish have been returned to their regular diet and no ill effects of feeding the sour food have been observed. We suggest that sour food be fed to several troughs of fingerling trout

regularly to see what the effect would be on them. We make this suggestion for three reasons:

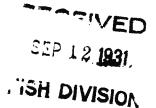
- 1. Because our preliminary experiment showed no ill effects from eating soured food.
- Because it would seem desirable to know whether food accidentally soured is dangerous to feed.

3. Because it is quite possible that the soured food, being partly broken down chemically, might be more readily and thoroughly digested than the unsoured food.

We do not make and claim pro or con on point 3, but merely point out that the question is open for experiment. We would suggest that provision be made for determining the growth of the fish on the soured and unsoured food, and that the food and other conditions be maintained as nearly identical as possible.

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