

The results of an interesting experiment conducted at the Agricultural College at Seal Hayne are reported in the Journal of the Board of Agriculture and Fisheries (England), 1914. In one of the experiments, it is pointed out that the substitution of fish meal for various other foods fed to pigs resulted in increased profits amounting in one series to 42 per cent, and in another to 94 per cent, notwithstanding the fact that the ration was higher in cost. In another experiment, fish meal was fed to cattle without any harmful results.

The rations of fish meal of North Sea origin as recommended by several authorities are: for cattle, 2 lbs. per 1,000 lbs. live weight; pigs, $\frac{1}{2}$ lb. per 100 lbs. live weight; sheep, $\frac{1}{4}$ to $\frac{1}{2}$ lb. per 200 lbs. live weight; while poultry can assimilate a ration containing 10 per cent fish meal.

From my own observations over a period of some twenty years, I can testify to its general use in Europe without harm to any of the usual live-stock on the farm. I have, personally, for many years used meals (compounded) for the raising of fish in fish-breeding establishments with the most satisfactory results.

By far the most important modern contribution to literature on the subject of the use of fish meal as a feed is contained in United States Agricultural Bulletin No. 378, the work of Mr. F. C. Weber, to whom we are greatly indebted. Mr. Weber appears to have collected abundant evidence as to the suitability and economic use of fish meal as a farm live-stock feed. He gives the following as the average analysis of some six meals used in his experiments:

	<i>Per cent</i>
Water.....	4.74
Ash.....	16.68
Total nitrogen	9.68
Protein.....	60.50
Fat.....	14.56
Crude fibre.....	0.61
Salt.....	5.78

In Mr. Weber's conclusion, he states that he is justified in saying that fish meal 'is a very effective supplement to a grain ration for pigs. . . . In this experiment, fish meal was superior to tankage in all comparisons.' Dairy cows fed on a ration of fish meal compared with cows fed on a similar ration in which fish meal was replaced by cotton-seed meal, gave a greater yield of milk, but it contained a lower percentage of butter fat. However, the total amount of fat obtained was approximately the same in both cases.

Mr. I. W. Turrentine, of the United States Bureau of Soils, has, during the last few years, published the results of some interesting and