

Redfish (Sebastes)

Redfish is a source of good quality fish food which has only been in demand in recent years. Recent evidence suggests that vast unexploited reserves of this fish may exist but that these will be technically difficult to exploit.

Herring

Herring formed about one-quarter of the total landings (edible weight) in 1946 and nearly one-third in 1938, and has the highest food value. Alone among the North Sea fish of major economic importance, the herring shows no sign of over-fishing, and it is unlikely that present landings represent even half its potential productivity. There are two main difficulties in increasing the landings: the peak of the East Anglian herring season may only last a few days; the fish itself will not keep longer than 36–48 hr. Improvements in methods of marketing and preservation are therefore needed before landings can be increased.

SUMMARY

Fish at present can supply about one-ninth to one-eighth of the required animal protein, of a high grade and in a very easily digestible form. Given developments along the lines suggested, a conservative estimate would be that the reserves of Arctic cod and North Sea herring alone could be utilized to increase the total weight of fish landed by 40% during the next few years.

REFERENCES

- Fishery Board for Scotland (1939). *Sea Fisheries Statistical Tables*, 1938. Edinburgh: H.M. Stationery Office.
- Hickling, C. F. (1946). *Fish. Invest.* Ser. 2, 17, no. 1.
- Lovern, J. A. (1946). *The Nation's Food*, p. 300. London: Society of Chemical Industry.
- Ministry of Agriculture and Fisheries (1939). *Sea Fisheries Statistical Tables*, 1938. London: H.M. Stationery Office.
- Ministry of Agriculture and Fisheries. *Sea Fisheries Statistical Tables*, 1946. Unpublished.
- Reay, G. A., Cutting, C. L. & Shewan, J. M. (1946). *The Nation's Food*, p. 269. London: Society of Chemical Industry.

Home Production of Eggs

By E. T. HALNAN, *School of Agriculture, Cambridge*

It can be calculated from Table 3 of the accompanying paper by Bransby, Magee, Bowley & Stanton (1947) that 10,000 million eggs are required every year to supply the population's needs; this is approx. 208 eggs/head. In the calculations set out in this paper I have used the *Monthly Digest of Statistics*, no. 19, July 1947, as my authority for the basic data on population, food consumption and imports of eggs and egg products. On the assumption that 5 oz. of dried egg are equivalent to twelve shell eggs, the total egg consumption in the United Kingdom for 1946 was 8659 millions or approx. 180 eggs/head. The actual egg consumption during 1946 was, therefore, not widely different from the amounts recommended, the difference being in the nature of 28 eggs/head. Though lower than the recommended amounts, this consumption is

higher than in pre-war years, the average egg consumption in 1931 being estimated at 158 eggs/head (Reorganisation Commission for Eggs and Poultry, 1935). The egg consumption in 1946 was partly derived from imports and partly from home production. The amount derived from imports was 4623 million eggs and approx. 4000 millions were from home production. Since egg imports will be seriously curtailed owing to financial stringency, an extra home production of 6000 million eggs will be required if the amounts recommended for consumption are to be obtained. On the poor quality of feeding-stuffs at present available for poultry, the average annual egg production/hen does not exceed 100 eggs. The extra number of hens needed to produce the eggs required would be 60 millions; this would be reduced to 43.3 millions if feeding-stuffs of pre-war quality became available, since under such conditions it should be possible to step up the average annual egg production to 120. Expanding the poultry population by this amount would present no major difficulty provided feeding-stuffs were available. The extra feeding-stuffs required must come from home production or from imports. Two possibilities of expanding home production are, first, release of home-produced barley and wheat for animal feeding, and secondly, reduction of the flour extraction rate, thus releasing extra supplies of wheat offals. It is estimated that release of an extra 10% of the wheat and barley crop for animal feeding would yield 363,950 t. of grain, and the reduction of the flour extraction rate from its present level to 70% would yield an extra 747,240 t. of wheat offals. Assuming that it takes 6 lb. of food to produce twelve eggs, that the average egg production/year is 120 eggs, and that it takes 20 lb. of food to rear a bird to the stage of laying, the extra feeding-stuffs available, if the courses I suggest are adopted, would suffice to produce 3733 million eggs. This would leave a gap of 2267 million eggs which could only be filled by the importation of feeding-stuffs. Calculated on the same basis as before, the amount of imported feeding-stuffs required would be 668,750 t. On the assumption that extra wheat and barley are released for animal feeding, and that the rate of extraction of flour is reduced to the pre-war level of 70%, it should be possible to raise home production of eggs to a level of 161 eggs/head, on the assumption, of course, that the extra supplies of home-produced feeding-stuffs are used entirely for poultry feeding.

REFERENCES

- Bransby, E. R., Magee, H. E., Bowley, M. C. & Stanton, B. J. (1947). *Brit. J. Nutrit.* **1**, 275.
Reorganisation Commission for Eggs and Poultry (1935). *Econ. Ser. Minist. Agric.* no. 42.

Summing up

By A. W. ASHBY, *Agricultural Economics Research Institute,*
Parks Road, Oxford

When I first saw the outline of the programme for to-day's conference, I suggested that someone should provide a general statistical background of home production, total supplies, consumption and recent changes therein, which the individual authors might