were purchased. Regionally, there were wide variations in the proportion home-grown. In the heavy grain-producing North Central regions, home-grown feeds made up more than 72 per cent of the total ration fed. On the other hand, in the deficit feed-producing North Atlantic and Western regions, less than a fourth of the concentrate ration was grown on farms where fed.

Individual states varied widely in regard to the proportion of home-grown feeds in the milk cow concentrate ration. In some New England states, only a fraction of one per cent of the rations fed by dairy reporters was made up of home-grown feeds. On the other hand, in Iowa, Nebraska, and the Dakotas, 85 per cent or more of all concentrate feeds in the milk cow ration were homegrown.

## WORLD OUTPUT OF MILK AND BUTTER

By C. Jensen<sup>1</sup>

The world's output of manufactured dairy products rose markedly in the major producing countries in 1949, according to information recently released by the United States Department of Agriculture. This rise was due to higher milk production in nearly all countries and to stabilization

of milk consumption, resulting in a larger proportion of the milk being diverted to manufactured products.

The increase in milk production took place mainly in the fourth quarter of 1949, which was considerably higher than the fall of 1948. The higher milk production reflects a satisfactory feed situation, healthy dairy higher milk production reflects a satisfactory feed situation, healthy dairy animals, increases in number of milk cows and in some cases increased milk yields. Abundant rains, coupled with mild fall weather made possible late fall grazing of cows on pastures in most of the major milk producing countries of Europe. Increased production of milk in the United Kingdom made possible the derationing of milk on January 15, 1950. Favorable growth conditions and abundant feeds caused substantial increases in milk output in Australia and New Zealand.

Refter them average posture conditions and ample fedder caused an

Better than average pasture conditions and ample fodder caused an increase in 1949 Canadian milk production despite some decline in cow numbers. Milk production in the United States also rose over 1948. While the number of cows on farms was lower than in 1948, the production per cow in 1949 was at a record high level. This was due to mild fall weather and a higher rate of concentrate feeding than a year carlier.

and a higher rate of concentrate feeding than a year earlier.

Factory production in 1949 increased in practically all major producing countries over 1948. The increases ranged from six per cent in Australia to 29 per cent in Denmark. Other countries which had increased butter production are the Netherlands, Sweden, Switzerland, France and Ireland. The Union of South Africa experienced a decline in butter production in 1949 as compared with 1948.

Chairman, Dairy Department.

Get circular No. 810, Crossbred Beef Cattle for the Northern Great Plains, if you want the reports on experiments to determine the value and possibilities of maintaining hybrid vigor through continual crossing of Hereford, Shorthorn, and Aberdeen Angus cattle. The work was carried on by the Bureau of Animal Industry at the U. S. Range Livestock Station, Miles City, Mont. Write North Dakota Agric. Experiment Station, Fargo, for your free copy.