

The obligation of New Zealand to produce the greatest possible quantities of meat and dairy-produce during the coming seasons can only be fulfilled if adequate provision is made for the winter feeding of breeding-animals. Any increase in production must be obtained by the more intensive farming of the improved lands of the Dominion. Shortages of some essential imports such as fencing-wire preclude, for the coming season or two, any major effort at extending the production area through land-development or land-reclamation works.

A special tribute is merited by the British Phosphate Commission for the manner in which they have undertaken the rehabilitation of Nauru and Ocean Islands, our main source of raw-phosphate supplies. Despite adverse weather conditions for the first eight months and extreme difficulty in maintaining essential supplies of material and equipment, the Commission commenced shipping at the end of July, 1946, and to date approximately 180,000 tons of phosphate rock has been shipped to New Zealand. By the end of June, 1947, it is anticipated this will have been increased to 210,000 tons. The Commission forecasts that by 1949-50 the total output of the two islands will reach 1,000,000 tons to 1,200,000 tons. The rapidity with which work recommenced after the islands had been recovered from the Japanese deserves the highest commendation and reflects the efficiency of the Commission and its staff.

#### FARMING EFFICIENCY

A constantly improving farm efficiency in terms of output per man and per acre is our objective, for only by such means can we secure any immediate increase in production and withstand future competition in overseas markets when food-supplies are more abundant than to-day.

Possibly the most important measure of farm efficiency is the amount of human effort required to produce a bushel of wheat or a pound of meat, butterfat, or wool, and while New Zealand, thanks to its favourable climate and the ability of its farmers, holds pride of place in output per man, it must be admitted that our efficiency could be greatly increased and we must not rest complacent with our present achievements. I consider that greater attention should be paid to the following important factors leading to increased efficiency.

- (1) Reduction of live-stock mortality and improvement of meat and dairy production through better feeding.
- (2) Reduction of loss through plant and animal diseases.
- (3) Improvement of pasture and crop production through the use of improved plant strains, fertilizers, and lime.
- (4) Increased mechanization of farming.

Improvement of production through attention to the above factors could be attained fairly rapidly if the farm-management methods of the average farmer were raised to those of the best farmers, and the Department of Agriculture is fully alive to its responsibility in raising the general level of farm practice through its research and extension services.

The recent extension of the Department's animal research stations at Ruakura and Wallaceville, and the establishment of a soil fertility station at Hamilton and an irrigation farm at Ashburton, will widen the Department's research activities and provide the basic information for the improvement of live-stock, pasture, and crop production methods. Increased attention is being given to mechanization by the establishment of the Farm Engineering Section of the Rural Development Division. The research institutions of the Department of Agriculture and the Department of Scientific and Industrial Research can, however, only form the pattern of the lines on which farm efficiency can be increased. The extension services must carry the information to the working farmer, and it is in the extension services of the Department that the staffing difficulties are most acute.