

SCIENTIFIC ADVANCES

In addition to the development of grassland farming and mechanization, there have been many related fields where scientific advances have played an important part. Herd-testing under the Department's C.O.R. and O.H.T. methods and group testing carried out by the Herd Improvement Association have provided a basis for selection on performance. The Ruakura and Wallaceville Research Stations are engaged on work of a fundamental nature which is having its effect on stock and pasture management. Vaccination against contagious abortion and the treatment of some forms of mastitis with penicillin are two outstanding developments contributing to the prevention of wastage in dairy herds.

The trend in agricultural development during the past three decades has been active exploitation of favourable natural resources. The application of scientific developments and the adoption of proved advances in knowledge and practice has resulted in improved potentiality in all branches of our primary industries and a rapid advance in efficiency of labour employed on the land.

An increasing population will absorb additional quantities of our exportable surpluses, and thus the quantitative export objectives of dairy products and meat become more difficult of attainment.

Experience of the past has crystallized the pattern of our food exports, and additional quantities can be made available only by intensification of the production methods which have given us our increases to date.

To summarize, we must concentrate on increased usage of fertilizers ; the provision of more and better fodder, whether it be in the form of pastures or crops ; mechanization of farming operations to the limit in order that unit costs may be reduced ; improvement in animal efficiency through breeding, feeding, and avoidance of wastage through disease control ; improvement in coverage and productivity of hill country and the insurance of adequate labour to cope with farming developments as the over-all programme of expansion materializes. Each of these principles has a background of problems which must be faced by farmers and the whole community in order that an expanding national economy may be achieved.

E. J. FAWCETT, Director-General.
