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THE WEST OF SCOTLAND AGRICULTURAL COLLEGE

(ECONOMICS DEPARTMENT)

GRAZING ON TWELVE DAIRY FARMS

OUTPUT AND EXPENDITURE, 1952

C. W. ROBERTS

REPORT No. 12

December, 1953

6 BLYTHSWOOD SQUARE,

GLASGOW, C.2

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A study of the grazing on twelve dairy farms was carried out in 1952 by the Economics Department of the West of Scotland Agricultural College in collaboration with their County Adviser colleagues in Ayrshire, Kirkcudbrightshire, Lanarkshire, and Wigtownshire. Foot-and-mouth disease hindered the enquiry, which had been requested by the Scottish Agricultural Improvement Council.

Probably the most surprising thing about these farms was that although they were selected for study because the County Advisers thought their grassland management of a fairly high order, the productivity of their cow pastures in the season of 1952 was on average barely 5% above the national annual average for all grass in the United Kingdom. However, high production was obtained from many fields, and the methods employed on these fields (as well as those used on the fields that did not do so well) are worthy of study.

The farms that got most out of the fields which they grazed with cows were the following. They are arranged according to the estimated feeding value per acre yielded by the fields mainly used by cows.

FARM A A Wigtownshire farm with a long grazing season and winter-dry cows, applying no nitrogen directly to the grass but encouraging clovers to provide nitrogen, never eating fields bare, and generally giving the cows access to about two-fifths of an acre a cow at a time. All the grass on the farm was grazed. On the cow pastures the cows gave 619 gallons an acre and charges for manures were 27/- an acre. Although the level of production from grass on this farm is high, it is possible that production towards the end of the season could be improved by modified manuring and management. If so, this would enable some concentrated feed to be dispensed with towards the end of the season.

FARM B Another Wigtownshire farm with a seven-months season, using the equivalent of $1\frac{1}{2}$ cwts. Nitro-Chalk an acre on its grass, and much more of non-nitrogenous manures than Farm A, strip grazing, and mowing for silage or hay as opportunity arose. Manure charges were nearly £5 an acre. At 289 gallons, milk produced an acre was not high; but in addition, more than 300 gallons of milk could have been produced from the food value in hay and silage taken from the cow fields.

FARM C An Ayrshire farm with a shorter season, using the equivalent of 8 cwts Nitro-Chalk backed up by adequate non-nitrogenous manures, and strip grazing, grass drying, ensiling, or making into hay as seemed best. On the fields grazed by cows manure charges were about £9.10s. an acre; the cows gave 246 gallons an acre; and more than 600 gallons of milk per acre could have been produced from the food value in hay, silage and dried grass taken from these fields.

FARM D Another Ayrshire farm, the Auchincruive Farm of the College itself, using adequate and well balanced manures and managing grass and cows so that the cows went into the byres well prepared for high winter production. Though the season was only 6 months long, (about the average for these twelve farms), the cows gave 538 gallons an acre when on the cow pastures. The fields were grazed in rotation and their relatively small size facilitated control of roughness etc. Manure charges on all the fields studied averaged just over £3.

FARM E A Lanarkshire farm on heavy clay in the industrial belt, and using rather more manures, at a cost of £5 an acre, with fields split up to give good control and permit rotational grazing. Milk production from the cows on the cow pastures was 383 gallons an acre.