

# Supply Responsiveness in Dairy Farming: a Note

By EDITH H WHETHAM

THE RESEARCH by Dr Hallas on the supply responsiveness of farmers in Swaledale and Wensleydale in the nineteenth century is an excellent study of two small communities whose environment limited their powers of adaptation to changing circumstances.<sup>1</sup> The Dales being unsuited to the commercial production of crops, farmers generally found that dairying was the most profitable enterprise as giving the greatest return per acre. Within dairying, the choice between selling milk liquid or in the form of butter and cheese was constrained, until the second half of the nineteenth century, by the small size of the local retail market for fresh milk; even after a railway opened the Leeds market to farmers in Wensleydale, 'it required the rapidly falling prices of butter and cheese in the 1890s to "push" them into changing their practice'. Without a railway, Swaledale farmers had little defence against low prices for dairy products; they could only sell more cattle at younger ages so as to obtain a quicker turnover from their herds.

The reluctance of farmers in Wensleydale to abandon the sale of butter and cheese may possibly be explained by fear of becoming dangerously dependent on a single product sold in a single market. Once the production of butter and cheese had stopped, the equipment dispersed, and the skills lost, there was no alternative to the continued sale of milk liquid, whatever the price obtainable in the local market. As so

many dairy farmers found in the 1920s and 1930s, the necessity of selling the daily output from their cows left them no defence against general depression or local glut. Of all types of farming, the specialized sellers of liquid milk had the least power of adopting alternative enterprises, if their primary market collapsed. That was shown sixty years ago, and has been even more clearly demonstrated in the last two decades, when herds are so much larger than they were, equipment even more specialized, and the costs of conversion to alternative enterprises even greater.

Indeed, adapting the supply of any major farm product to changes in demand has become progressively more difficult in the last half-century, with the rising costs of the specialized machinery, buildings, and processing plant required to provide an output above the minimum economic size. In contrast, perhaps the period when supply was most easily responsive to changes was the latter half of the nineteenth century, when the majority of lowland farmers ran some variant of a four- or five-course rotation of crops and kept a variety of livestock, selling a dozen or more products, and shifting the emphasis between them in accordance with local markets. Arable farmers buying sheep and cattle to convert their roots and leys into muck for the corn crops, midland graziers buying stock throughout the year, could adjust the quantity and quality bought by a continuous series of decisions, based on their expectations of future prices and the current

<sup>1</sup> Christine Hallas, 'Supply Responsiveness in Dairy Farming: Some Regional Considerations', *Ag Hist Rev*, 39, 1991, pp 1-16.

supply of fodder. They could thus defend their profit margins against changing prices whether in the store market or the markets for fatstock. Hill and upland farmers had no such easy defence, even in the nineteenth century, since the quantities of stock they sold, and the times of disposal, were largely determined for them by the seasonal variations in the weather and the characteristics of their environment.

Dr Hallas has expounded this fundamental difficulty of the upland producers of

livestock, but this same difficulty seems now to have been generalized throughout farming, by the increasing cost of the specialized equipment required to produce each of the major commodities, which in turn limits the variety of products grown on individual farms. In the last half-century, there has been a marked decline in the 'supply responsiveness' of the major agricultural products to the changing circumstances, whether induced by national policy or the CAP.

# The Journal of Agricultural Science

Senior Editor: D. E. Walters, Cambridge

*The Journal of Agricultural Science* publishes papers concerned with the advance of agriculture and the use of land resources throughout the world. It publishes original scientific work related to strategic and applied studies in all aspects of agricultural science. The journal publishes book reviews and invited short reviews of scientific topics of current agricultural interest.

## Essential reading for those in:

- agricultural colleges and institutes
- departments of agricultural estate management
- horticulture
- agricultural suppliers

## Coverage includes:

- Agronomy and crop physiology, breeding, genetics and pathology
- soil science
- animal nutrition, physiology and genetics
- mathematical and statistical methods used in experimentation and data analysis

**Subscriptions 1990**, Volumes 114 and 115: February, April, June, August, October and December: £155.00 for UK subscribers; £170.00 for subscribers elsewhere; £28.00 for single parts; airmail £29.00 per year extra  
ISSN 0021-8596

## Of Related Interest

### Experimental Agriculture

*Experimental Agriculture* publishes the results of analytical research into the agronomy of crops, particularly the food, forage and industrial crops of the warmer regions of the earth. It is especially concerned with experimental work conducted in the field, and is designed to explain agronomic results in biological and environmental terms.

### Journal of Dairy Research

Original research on aspects of milk production, preservation and processing. These include the composition of milk, properties of bovine milk proteins, research on dairy products such as cheese, fermented milks and butter, studies on relevant micro-organisms and the incorporation of uses of milk or dairy products in other foods.

To subscribe, or for further information, please contact:  
Journals Publicity Department, Cambridge University Press, \*FREEPOST,  
The Edinburgh Building, Shaftesbury Road, Cambridge CB2 1BR, England  
(\*No postage required if posted in the UK)

 **Cambridge  
Journals**