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Cattle
Cost of
Production

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GRASS FED CATTLE
IN THE EAST MIDLANDS

A study of the economics of beef production on grassland during the years 1946 and 1947.

by

A. J. WYNNE, B.Sc. (Agric.), N.D.A.

University of Nottingham School of Agriculture
Department of Agricultural Economics
Sutton Bonington
Loughborough.

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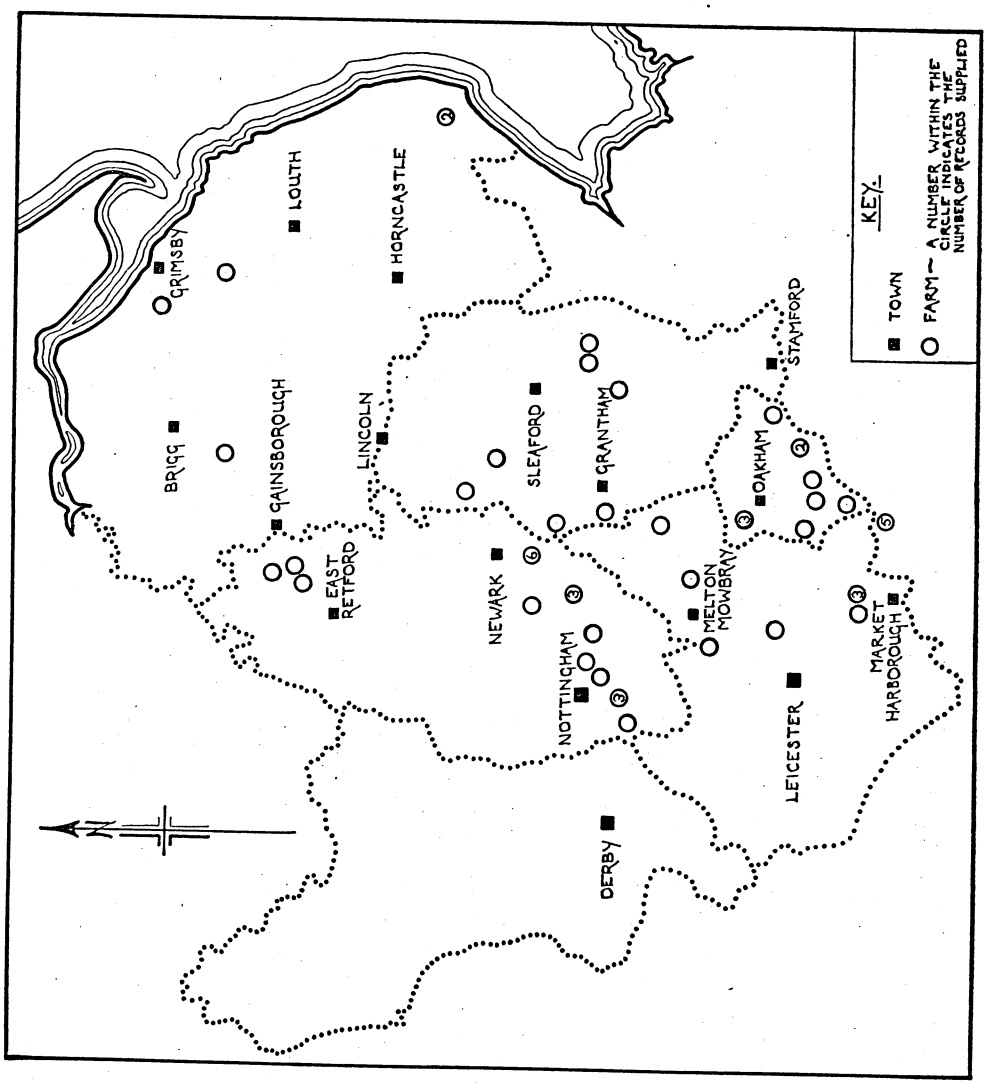
MAP OF THE EAST MIDLANDS PROVINCE
SHOWING THE LOCATION OF FARMS
FROM WHICH RECORDS WERE OBTAINED.



CHAPTER I.

THE PRODUCTION OF BEEF.

Beef production has for long been the pride of British agriculture. The owner of a beef herd is regarded as a member of the aristocracy of the farming community, and buyers from all over the world come to buy his breeding stock for improving the quality of their own native herds or for supplanting existing breeds. British breeds have stood the test of time and the demand continues as the market for good quality beef expands. This demand for breeding stock is likely to increase as improved breeding methods spread over the world. There are large areas, even in Europe, where peasant farming is predominant and the main requirement at present is for cattle of a type suited to draught. But the wheels of progress are always turning and the time will come when those areas will open up new markets for British quality beef stock. The major part of our output, however, is destined to be slaughtered for home consumption, and it must never be forgotten that it is the home market which is the real foundation of the beef herds of Britain. The arbiter of the fate of beef production is in the long run the home consumer—the housewife in the suburbs, the family in the British Restaurant and the worker in his canteen. It is these the producer must aim to satisfy. If feeding habits develop on communal lines and a demand is established for heavy joints then we shall need to see a corresponding development of big beef cattle on our farms. On the other hand if household feeding in small family units returns with a corresponding decline in restaurant and canteen feeding we shall see a swing back to the high quality beef breeds, the best blood of which is so prized for stock purposes overseas.

The idea of beef production usually conjures up visions of prime Aberdeen Angus or Beef Shorthorn cattle bred for generations with high quality product in view. The production of beef is not, however, confined to the beef breeds. Much of the beef sold by butchers is from old cows, and many of the animals fattened are produced by mating a beef bull with dairy cows of milk or dual purposes breeds or types. In addition a number of cattle of nondescript type, which have been produced by indiscriminate matings and which are a credit neither to their parents nor to the breeders, have to be sold on the home market.

It is usually agreed that a prerequisite of a successful marketing organisation is a product of a fairly uniform standard. It is

possible to get this where beef is the main product of the cattle enterprise. But where the beef is subsidiary to milk production or where muck is the primary product in view, uniformity frequently tends to go by the board. And if this happens the interests of both producer and consumer may be sacrificed.

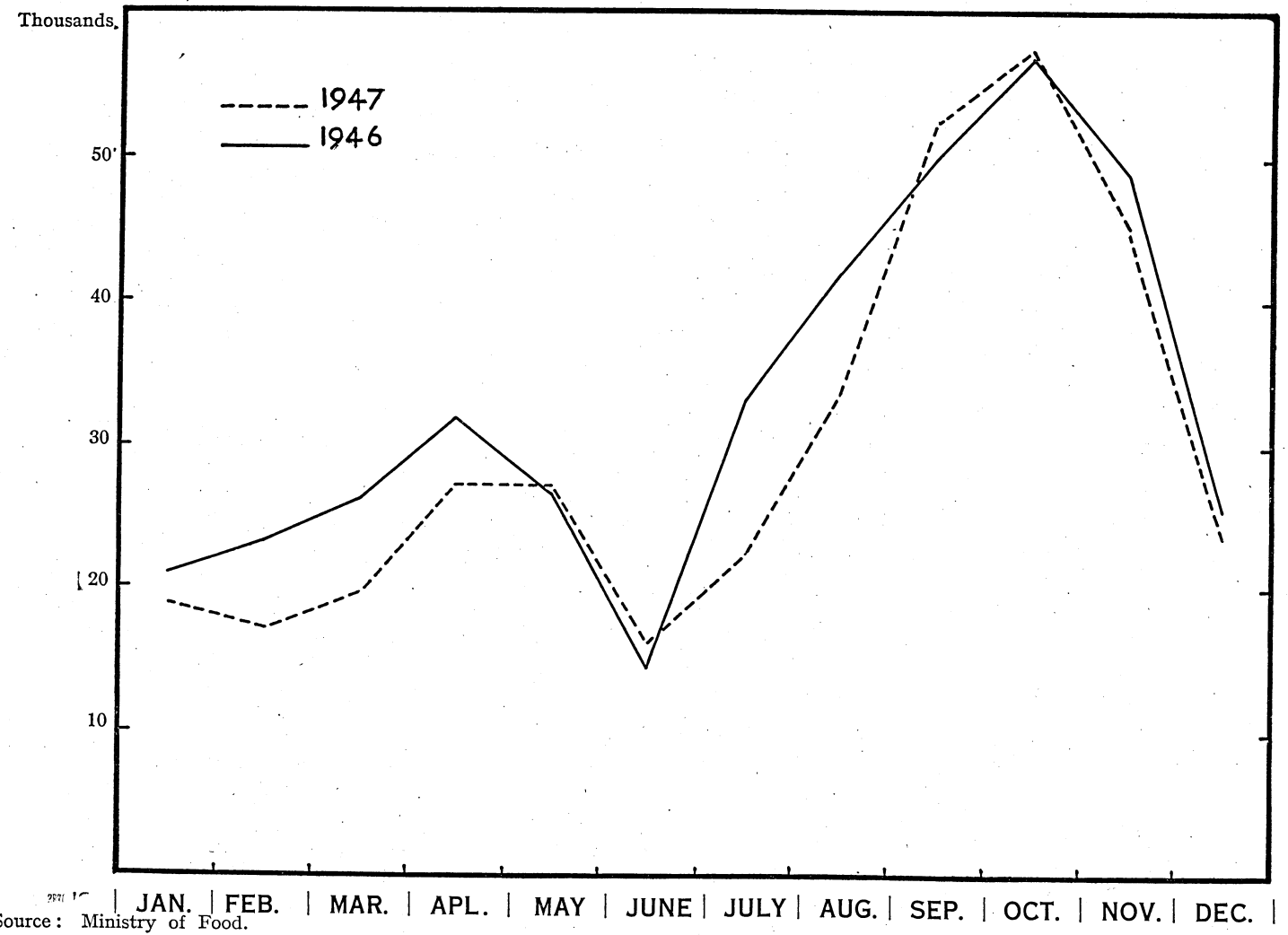
There are two main methods of producing beef; yard fattening and grass fattening These methods of feeding are not, of course, exclusive and there is a good deal of overlapping. Animals unfinished at the end of the winter yarding season will be finished off on grass on the same farm or sold to a grazier. Similarly grass fed cattle unfinished at the end of the grazing season will be taken into the yards for the final stages of fattening.

The importance of beef cattle in the economy of different types of farms varies very greatly. Siege conditions during the war followed by trading difficulties since have resulted in much grassland being put under the plough. In Leicestershire, a county famed for the excellence of some of its pastures, the amount of arable land has increased from 67,618 acres in 1939 to 228,532 acres in 1948. But in spite of this swing towards arable there are still to be found grassland farms the economy of which is based largely on the management of their fattening pastures. In the days before 1939 when there was no drive for any increase in arable cropping almost the sole output from such farms was fat cattle, with some fat sheep, and the organisation of the farm was centred around the careful management of the pastures in order to maintain the maximum output of grass and consequently the fattening of the maximum number of beasts of suitable type. Strong store cattle were bought in the spring in sufficient numbers to graze down the spring flush of grass. Cattle were normally sold fat from July onwards and additional numbers were bought in as required to keep the grass under control. By autumn the remaining cattle would be sold off as forward stores and only a few "gnawers" kept for the winter.

There are also the arable farms with no permanent grass, except a paddock by the homesteads, and the occupiers of many of these buy strong stores in the autumn primarily for the production of dung. The cattle are kept in yards through the winter, treading straw and eating straw, hay, roots, and any corn that can be spared. Without the feeding of concentrates fattening is a slow process but many arable farmers contrive to have some supplies to fatten their cattle, mainly sugar beet pulp and home grown corn and beans. Up to 1939, when oilcakes were readily available and cheap, considerable quantities

CHART 1.

AVERAGE WEEKLY SALES OF CATTLE FOR SLAUGHTER IN 1946 AND 1947.



Source: Ministry of Food.

of purchased feeding stuffs were consumed in the yards and although returns were small the cattle maintained their position in the farm economy very largely because of the value of the manure produced.

Between the extreme types of beef production there is an endless variety. A single field on a farm may be reserved for fattening cattle. Both summer and yard fattening may be practised on the mixed farm with good pastures. Fattening may be a single enterprise or may be combined with breeding or with store rearing. It may be a regular practice or an occasional gamble to be taken when supplies and prices appear to be right. The chart of weekly sales shows the relative importance of grass fed cattle at the present time. It shows the heavy sales for slaughter which come in the late summer as well as the early peak in April and May which is partly accounted for by the finishing off of yarded cattle on the first flush of grass.

In each of the two years 1946 and 1947 nearly two thirds of the mature cattle slaughtered were sold during the period 1st July to 31st December and only just over one third in the preceding six months, 1st January to 30th June.(1)

Not all these cattle are from the beef breeds. The dairy herds provide a very considerable output of cows and heifers which are slaughtered for beef. Many of these are drape cows of varying ages and of low quality but a proportion at least are cow-heifers which have only had a single calf and have proved unsuitable for milk production. The proportion of steers and heifers to other cattle was just over two to one in 1940, and slightly less in the following year.

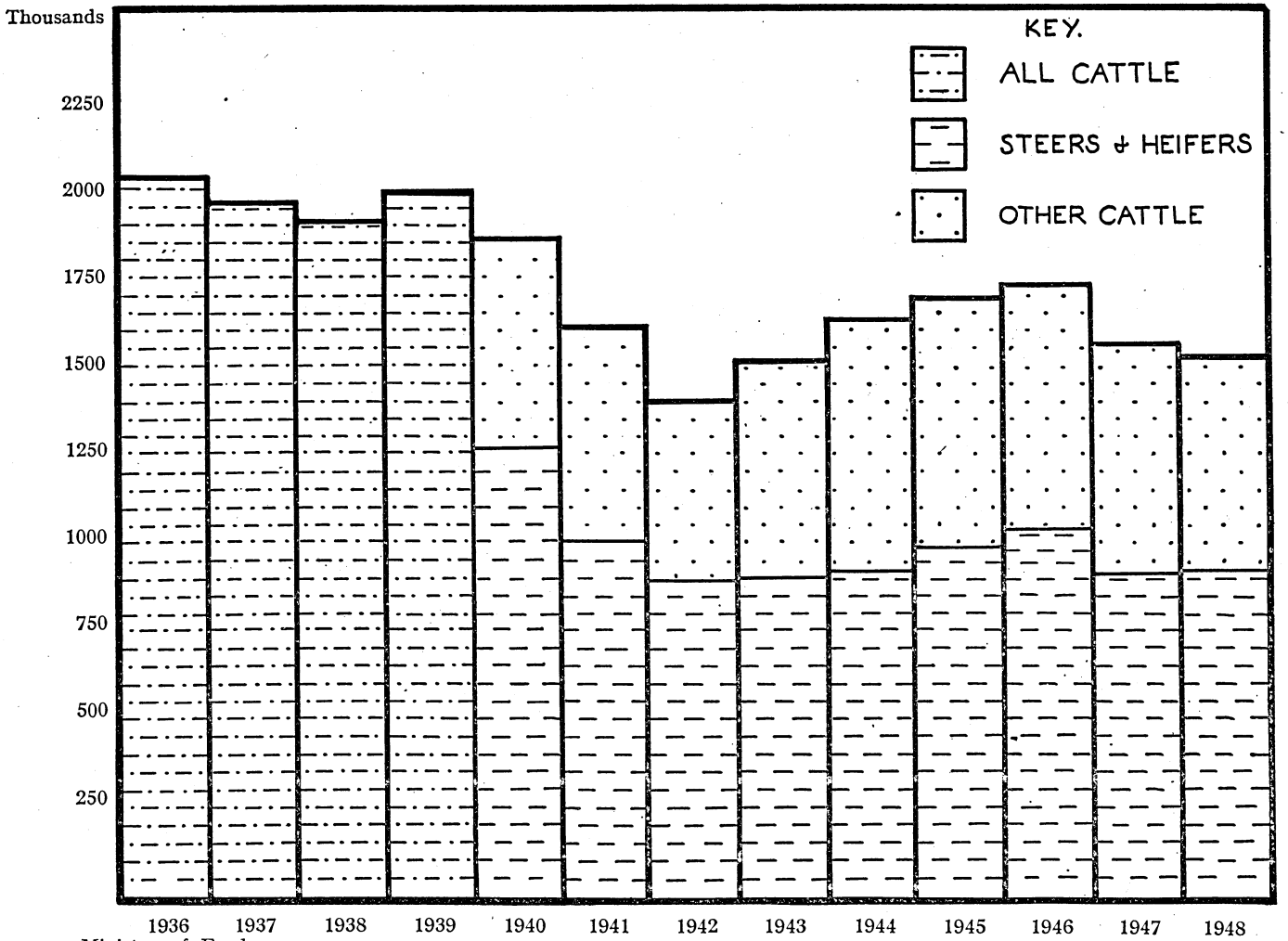
By 1941 the effects of the war were already becoming aparent. The expansion of milk production had begun, with the consequent diversion to the dairy herds of heifers which would normally have been fattened for beef. Another factor helped to make 1941 an abnormal year. For eight months the import of Irish cattle was stopped because of an outbreak of foot and mouth disease in Eire. The consequent loss in numbers of store cattle for fattening also influenced the numbers slaughtered in 1942, but from 1943 to 1946 there was a steady increase in the number slaughtered. Over the six years 1941 to 1946 fat steers and heifers accounted for between 57 per cent and

(1) The actual proportions were:

	1946	1947
	%	%
1st January to 30th June	36	35
1st July to 31st December	64	65

CHART 2.

YEARLY NUMBERS OF CATTLE SOLD FOR SLAUGHTER 1936 TO 1947 (EXCLUDING CALVES).



Source: Ministry of Food.

64 per cent of all cattle slaughtered (other than calves) and it would appear that prior to 1939, when the number of dairy cows was some seven per cent less and the number of cattle slaughtered was about 20 per cent greater, the corresponding figure would be around 68 per cent This figure is for *numbers* slaughtered. The output of beef from steers and heifers is probably proportionately greater than the numbers indicate since many of the fat cows sold for slaughter produce a relatively lighter carcase. Up to 1940 this difference was less marked than at present time as there was also a considerable output of "baby beef" and "young beef" from beef cattle slaughtered at weights which would now be considered uneconomic.

The size of the national beef herd and the numbers of cattle sold annually for slaughter are controlled by a number of factors. Cattle for fattening are from three distinct sources; home reared stores, imported (Irish) stores, and cows from dairy herds.

The supply of drape cows for fattening is largely independent of the economic position of beef producers. It depends primarily on the size of the national dairy herd and the level of replacement required to maintain it and to satisfy the economic demand for milk. The supply is very susceptible to changes in the demand for milk and will fall temporarily if there is an increased demand because cows which would otherwise have been culled from the herds will be retained on the dairy farms. Similarly a fall in the demand for milk will result in heavy culling and a temporary increase in the number of drape or store cows available for fattening. At the present time the average productive life of a dairy cow is probably not more than four years. However, disease and death take their toll and the annual supply of drape cows for fattening is between one fifth and one sixth of the total number of cows.

As far as both homebred, and to a lesser extent, Irish stores, are concerned supply depends on the decisions taken two or three years earlier by breeders. In the long term this will be dependent on the demand for beef stores as expressed through the prices offered, but because of the period of time involved, adjustments to changed economic conditions may be delayed by the fear that the change may only be temporary. There is frequently great difficulty in assessing the effect that will follow a change in farming practice. For example, the ploughing up campaign of 1940 to 1944 did not result in such a drastic reduction in numbers of cattle and sheep (particularly the former) as many competent observers thought would be necessary. The conclusion has since been drawn that much of the grassland of Great

Britain was very inefficiently utilised up to 1939. It would, however, have been very risky to forecast at that time that a much more effective utilisation would become a reality within three years.

An additional factor affecting the supply of beef stores is the period taken to fatten them. This period has, of course, lengthened considerably as a result of the shortage of imported feeding stuffs and particularly of oilcakes.

An extremely disturbing fact which comes out clearly in the Ministry of Food Statistics is the great numbers of calves which are slaughtered. The number of calves reared in the period 1940 to 1945 has been estimated at about 50 per cent of births [1]. The remaining 50 per cent of the calves born either die or are killed on the farms or sold for slaughter. There has not been any great change in the proportion of calves reared in recent years but the majority of those not reared are now sold for slaughter either as veal or for manufacture. The proportion of unmarketed calves, that is calves which either die or are killed on the farm, has been estimated at 13 per cent in 1945 compared with 40 per cent in 1940 [2].

It is clear that if beef production is to be expanded some means must be found of increasing the supply of beef stores by reducing the wastage and the slaughter of calves as well as by increased breeding. There are many reasons for the high level of wastage. Many dairy herds are not self contained and the bulls used have the single function of getting cows in calf. Many of the low grade bulls leave calves of little or no value either for milk or beef production. There is bound to be a considerable wastage, too, from the dairy breeds using dairy bulls, as only a few of the bull calves are required for breeding purposes and the remainder may be unsuitable for beef production.

On the dairy farm calf rearing provides additional weekend work and the calves are competing with the cows for home grown feeding stuffs. For these reasons it is disliked, and difficult to develop while expansion of milk production is proceeding. Finally there are difficulties associated with the transfer of young calves to farmers prepared to rear them. An expansion of store rearing depends to a considerable extent on ensuring that healthy well-bred calves are available, and this in turn involves proper breeding and the provision of facilities for the transfer of calves from breeder to rearer.

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(1) *Joan Marley.* Journal of the Royal Statistical Society. Vol. CX Part III, 1947.

(2) *Joan Marley* op.cit. p. 241.

The actual distribution of cattle rearing within the British Isles provides an important clue to understanding the extensive slaughter of calves which had become an established practice long before 1939. Cattle rearing is practised in Wales, Ireland and the remoter parts of Scotland. In these places, remote from or inaccessible from the consuming centres, the systems of farming practised are more rigidly confined than elsewhere. A switch over to milk production or to cattle fattening is not practicable, and the output of stores from these areas has been sufficiently high to keep down the price to a level at which large numbers of breeders and feeders in other districts are unwilling to compete, and prefer to concentrate either on milk production or on fattening.

With cattle it is, of course, far simpler to reduce numbers than to increase them. The agricultural statistics show that the number of cattle in the United Kingdom has increased by about 10 per cent since the years 1936 to 1939. This overall increase is accounted for firstly, by the increase in the number of dairy cows and the corresponding increase in young dairy stock, and secondly, by the increase in the average period required to fatten beef cattle. This explains why the total number of beef cattle on farms has increased while the output has declined, as shown in Chart 2.

The Agricultural Expansion Programme has been adopted by the Government as one of the measures by which it is intended to improve the economic position of our country and in particular to lessen our dependence on imported foods from the "dollar" countries. The objective is an increase in net agricultural output of about 20 per cent above the 1946-47 level, to be reached in 1952-53.

Increases in the output of livestock and livestock products are expected to produce more than half the net increase required and the output of beef and veal is expected to reach 10 per cent above the level of 1936 to 1939. However, the output at the start of expansion was considerably below the pre-war level. The number of cattle, other than calves, slaughtered in Great Britain in the three years ending October 1948 was only some 80 per cent of the corresponding number sold for slaughter in 1936 to 1939. If we assume that imported stores for fattening can be obtained in sufficient numbers to increase the output from this source in the same proportion as the increase which can be obtained from homebred cattle it follows that the output of homebred beef cattle must be increased by more than 37 per cent, (from 80 per cent to 110 per cent of pre-war). Since steers and heifers are only about 60 per cent of the number of cattle

(other than calves) slaughtered for beef (the remainder being mainly cows from dairy herds) and since we cannot expect any great increase in the output of cow beef, this expansion entails an increase in the number of homebred stores fattened of not 37 per cent but over 60 per cent. The required increase in calf numbers in order to provide the store cattle to fatten during 1952-53 can be estimated roughly as follows :—

The calves which will be returned at June 4th, 1950 in the age group "Under One Year" will include most of those to be reared to provide the stores for fattening during the period 1952-53. The average age of slaughter is estimated at 39 to 40 months.[1]. Miss Marley has estimated that during the period 1942 to 1945 approximately one half of the calves reared went into the milk herds and half to the beef herds [2] so that an increase in the number of calves reared of about 30 per cent will provide the 60 per cent increase in the number of beef stores available.

It is recognised that this calculation cannot be very accurate. We have assumed that an increase in numbers is required proportionate to the increase in output by weight. Beef cattle normally weigh more than drape cows but on the other hand no account has been taken of the loss of veal that will occur if more calves are reared, and it is probable that the figure of 30 per cent is somewhere near the actual increase required from rearers, provided an equal increase in the number of imported stores can be obtained. If Irish stores are not available the increase in home production must be even greater.

An increase of 30 per cent is by no means impossible. Up to 1947 about half the calves born were slaughtered or died. Subject to the general conditions that quality must not be reduced and that the necessary feeding stuffs can be obtained it will only be necessary to rear two calves out of every three which are born in order to exceed the objective for beef output set in the Agricultural Expansion Programme.

The Government has already taken several necessary steps towards increasing the output of store cattle. The calf subsidy is in operation, artificial insemination stations are being established in increasing numbers and the prices paid for beef cattle were substantially increased in 1947 and again increased in the spring of 1949. Already the effect of these measures can be seen in the increased number of cattle of under one year on the farms at June 4th, 1948. But the

(1) Op. cit. pp. 218-222
(2) Op. cit. p. 205.

increase is not yet sufficient. Numbers in Great Britain have gone up from a yearly average of 1,550,000 during 1941 to 1947 to 1,764,000 in 1948, an increase of about 14 per cent. Greater increases will be needed in 1949 and 1950 to reach the required level of output.[1]

The beef industry has a highly complex structure. Only about two out of every three animals slaughtered have been reared as beef stores, the greater part of the balance being cows culled, mainly from dairy herds. The supply of cow beef is therefore largely independent of the demand for meat and depends on the size of the national dairy herd and on the level of culling practised by dairy farmers. Fluctuations will occur in the output of cow beef as a result of changes in the relative profitableness of dairy farming and of other farm enterprises. The supply of beef from steers and heifers, on the other hand, depends very largely on decisions taken two or three years earlier by breeders, in the light of the economic conditions prevailing at the time. To a large extent the rearing of beef stores is localised in the more remote parts of the British Isles but there is, in addition, a considerable output of stores bred in the dairy herds. However, the nature of the farming industry in the main store-rearing districts, and the length of time required to produce a store are factors making for stability of output and a strong stimulus may be required before any important change in the level of output can be brought about. At the fattening stage stores may be fattened on pastures in summer or in yards in the winter. The yard feeder is usually as interested in the muck produced as he is in any direct profit on the cattle. Unless feeding stuffs are available at a suitable price the amount of yard fattening will be limited and most of the cattle from the yards will require finishing on grass.

Expansion of the national beef herd at the present time, when most systems of farming are profitable, will necessitate the provision of economic incentives for expansion at each stage of the process. At the outset the necessary calves for rearing must be secured, partly by breeding from beef cows and partly as a by-product of the dairy herds. The total number required in order to carry out the Agricultural Expansion Programme is in excess of the present output and breeders have to be persuaded to increase their production and to maintain it at a higher level. They will do so if they can secure what they regard as a reasonable return from the sale of their stores. At the other end the grazier requires to buy stores at a price which will allow him a reasonable margin between the purchase price of stores and the price he will receive for his fat cattle.

(1) A further increase in the number of cattle under one year old on the farms is shown in the returns at 4th June, 1949, the total for Great Britain being 1,898,000 (provisional figures only). This is an increase of 22% over the 1941 to 1947 average.

The amount of good grassland is limited and subject to the competitive demands of different kinds of livestock, and is one of the problems involved in the expansion of beef output. This is, fortunately, not difficult to overcome. Much grassland is still understocked and a large acreage is capable of improvement which will increase its stock carrying capacity. In addition the pressure on the grassland may be reduced by increasing the amount of yard feeding practised. Although it may appear paradoxical the experience of the period 1945 to 1948 has been that a decline in the tillage acreage has been accompanied by a decline in beef output and it may be necessary to plough up more grassland in order to maintain more beef cattle. This can be done by increasing the acreage under productive leys and at the same time increasing the output of feeding crops necessary for the winter keep of cattle.

CHAPTER 2.

THE PLACE OF BEEF CATTLE IN THE FARM ECONOMY.

The main purpose of carrying on a farming business is in order to secure the maximum profit from the whole farm enterprise. Organisation to this end involves the development and successful interlocking of enterprises in order to make full use of the resources of the farm, to maintain soil fertility and the health of the livestock, and to keep to a minimum the less profitable enterprises. A high standard of health of livestock and fertility of land are of course essential to the long term maintenance of profits under a stable economy. It is unlikely, for example, that those farmers whose farms have become derelict as a result of soil erosion in the dust bowls of the United States reaped sufficient additional profits from continuous white straw cropping to compensate them for their loss of livelihood, loss of homestead and consequential losses brought about by the destruction of the soil. This is quite apart from the national loss of assets which the destruction involved.

Farm enterprises interlock in a complicated fashion. Livestock produce dung which is used for the maintenance of fertility of both arable and grassland. They consume specially grown foodstuffs: corn, roots, hay and grass, and by-products that might otherwise be wasted such as straw and sugar beet tops. In addition, under present conditions, growers of sugar beet have the right to purchase some of the by-products of the manufacture of sugar, and growers of linseed may buy 12cwts. of cake for every ton of linseed sold. A very real economic advantage is secured in both cases; sugar beet pulp has been one of the cheapest feeds available and provides a useful supplement to available rations, and the linseed grower benefits by his right to a larger share of the limited supply of cake.

Perhaps the simplest organisation in the beef industry is the summer fattening of stores. In the simplest form strong stores are bought in the spring, fed on permanent pastures, or sometimes on leys, for up to six months and sold off fat. Normally the fattening pastures are permanent grass fields kept for the purpose. Fattening takes far less from the soil than either rearing or milk production. Growing stock require not only considerable quantities of protein for body building but also phosphorus for bone production and growth. The dairy cow retains both for milk production. The mature beef animal's requirements are less and the balance is returned to the land in the dung and urine. And since both dung and urine are automatic-

ally spread over the feeding pastures by the cattle the drain of nitrogen and phosphorus from the soil is not great. In fact many excellent feeding pastures never receive any artificial manuring (apart from liming) and continue to fatten cattle without any diminution of productivity.

Prior to 1940 some farms produced little beside fat cattle and the whole management of the farm was directed towards the continuous production of grass. In other cases particular fields were reserved for feeding. In these cases there was little interlocking with the rest of the farm economy unless home reared stores were fattened. Cattle require little attention and normally receive only small amounts of supplementary foods. Stock-proof hedges or fences however, are essential and labour must be available for their maintenance. Equally important is proper drainage. Most of the best pastures are on heavy land and great damage to the pastures can result in a wet season if this is neglected.

The practice of summer fattening, on farms where cattle are not wintered is, of course, dependent on an outside supply of suitable store cattle, mature and capable of being fattened before the supply of grass is finished in the autumn. Since 1940 considerable modification has taken place. A great deal of grassland has been ploughed up and devoted to cash cropping. In addition some grassland has been ploughed and reseeded in order to increase the grass production. In spite of the reduction of the grass acreage nearly as much beef has been produced as before 1940 and the milk output has increased. This has been possible by better utilisation of grassland.

The evidence for the understocking of grassland prior to 1939 can be illustrated by some figures from the June 4th returns. The following table shows the total number of livestock and the acreage of grazing land in England and Wales in 1939 and 1944.

TABLE 1.
LIVESTOCK NUMBERS AND GRAZING ACREAGES IN 1939 AND 1944.

	1939	1944
	('000)	('000)
Total number of cattle at June 4th	6,770	7,198
,, ,, ,, sheep ,, ,, ,,	17,986	12,602
,, ,, ,, horses ,, ,, ,,	846	708
Total livestock units	8,400	7,933
Total grazing acreage	11,865	8,508
Acres per livestock unit	1.41	1.07

From the full returns the number of livestock units (cow equivalents) have been calculated for each year and the number of acres of grazing land per livestock unit is given. The contrast is striking and there can be little doubt that in fact the figures given underestimate the improvement. Much of the best grassland was ploughed up, and by 1944 very little reseeding had been carried out. The acreage cut for hay had also been reduced so that there was also relatively less aftermath for the livestock to graze.

In the pre-war years when consumers were able to exercise greater choice and were demanding small joints a considerable output of "baby beef" and "young beef" was maintained by more intensive feeding and a reduction or elimination of the store period, so that the cattle could be marketed at from 15 months old upwards. With the introduction of the rationing system, which directed available feeding stuffs into those enterprises which were considered more important, beef producers were left with virtually no supplies of purchased concentrates. In consequence the production of both "baby beef" and "young beef" ceased. This enforced reliance on grass and home grown feeding stuffs has resulted in a lower rate of fattening and a consequent increase in the age of slaughter. Of particular importance is the effect on the yard fed cattle.

Yard feeding was formerly practised extensively in arable districts. The main purpose of yarding was the conversion of by-products into muck and frequently the direct profit was low. The use of purchased oil-cakes greatly accelerated the fattening process and frequently two batches of cattle were fattened during the winter period. The additional advantage of yard feeding in providing employment for the regular farm workers during the slack period should not be overlooked in assessing the place of feeding in the farm economy, and, taken with the value of the manure produced, the utilisation of unsaleable by-products and any direct profit accruing from the cattle, provided sufficient incentive for the maintenance of yard feeding prior to 1940. On many of these farms store cattle are still bought for feeding in the yards. When supplies of home grown concentrates are adequate, and the temptation to sell them is not too great, fattening is still practised, but very many arable farmers now buy store cattle at about two years old and sell them in the spring as forward stores ready for finishing off on grass. In this way they achieve their objective of converting hay, roots and straw into farmyard manure with very little supplementary feeding.

On many mixed farms rearing and feeding are both practised. As has been mentioned above the rearing industry is of great importance in Wales and parts of Scotland, in districts where milk production and beef production are both impracticable by reason of the location of the farms and the rugged character of the land. But in addition very many stores are reared within or close to the fattening districts. The large numbers of Lincoln Red Cattle, and their wide distribution over Lincolnshire make it clear that here at least both rearing and fattening are practised.

The actual organisation of the individual farm depends on many factors. On any farm probably the most important is the proportion of arable land to grass and this in turn will depend on the type of soil, topography, climate and on the relative levels of prices of livestock and crops. Other factors affecting organisation are layout, the ease with which particular fields can be ploughed and the value placed on farmyard manure by the individual farmers.

At the present time the size of the livestock enterprise is limited by the necessity of growing sufficient feed for the winter and grazing for the summer, and frequently, too, by the accommodation available. Subject to an upper limit imposed by these factors a considerable degree of flexibility is possible, and the size of the livestock enterprises may be varied within fairly wide limits, by increasing or decreasing the acreage of feed grown. Considerable variation is found in the intensity of stocking on this type of farm, and it is frequently below the maximum set by accommodation and the quantities of feeding stuffs which are, or could be made, available. There are many reasons why farmers do not achieve this maximum. Traditional practices are very strong and many farmers hesitate to expand livestock enterprises to the point at which exceptional weather conditions (such as prolonged drought or crop failures) may expose them to exceptional risks. Under present conditions, too, labour shortages may impose a limit on expansion. Even where additional labour is available it may be that the existing farm staff is fully employed and an expansion of the cattle enterprise would not provide sufficient work to justify the employment of additional full-time workers. Finally it may be said that some farmers lack the initiative or the ability to reorganise their farm economy, and are content to go on in their old way, until they are compelled by circumstances to make a change.

Even when a change in livestock policy is made it may take a long time to carry it through on the individual farm. The feeder

who breeds and rears his own stores has the choice between buying extra breeding stock, in order to expand his output, or of diverting his heifer calves into the breeding herd. If he adopts the latter course it will probably be three to five years before he can achieve any considerable increase in his output of fat cattle.

This time-lag between breeding and rearing has an important effect on the whole beef industry. Beef stores may be bred in beef herds at home or in Ireland or in dairy herds at home. The total number coming forward is governed by the decisions taken by breeders two or three years earlier, but may be reduced by the competing demand of the dairy industry for heifers. Any change in policy by breeders will therefore depend on the anticipated demand at a future date and over such a period breeders will require a substantial reason for believing that adjustments in demand will be sufficiently lasting to justify a change of policy.

CHAPTER 3.

PRICES OF STORE AND FAT CATTLE.

While there are many farmers who both rear and fatten their cattle there are even more who are directly interested in only one of these enterprises and there is a very large trade in store cattle of two years old and upwards from the rearers to the feeders, the main trade being in the spring for grass feeding and in the autumn for yard feeding. Prior to 1940 there was an effective demand for small joints and in consequence an increasing output of "baby beef" and "young beef". This was achieved by the elimination or reduction of the store period, the animals being fattened with the aid of a plentiful supply of purchased concentrates. Even before 1940, however, the bulk of our home produced beef was from mature cattle, and since then, as a result of the rationing of concentrates and of the price policy of the government the early fattening of beef cattle has largely ceased.

Since 1940, too, the practice of yard fattening has declined. With the outbreak of war this country was faced with the problem of deciding on policies for food and agriculture which would provide an optimum diet under siege conditions. The food policy adopted can perhaps best be described as providing a "peasant diet" for the population; plentiful supplies of cereals, and vegetables, as much milk as possible and a small ration of meat and fats. Rationing ensured that the limited supplies of food were fairly distributed. Agricultural policy was integrated with trade policy in order to conserve shipping space. Liquid milk could only be home produced and some imported feeding stuffs had to be made available for its production. Meat, on the other hand, could be imported using fewer ships and less space than would have been required for the import of the feeding stuffs necessary to produce an equivalent weight of meat from homebred cattle.

Since the introduction of the rationing of feeding stuffs no rations have been issued for beef cattle. At the same time the prices paid for home grown concentrates have been sufficiently attractive to induce many farmers to sell their corn and beans and feed their cattle in the yards largely on bulky foods. In consequence there is today a far greater seasonal variation in the output of home-killed beef than was the case prior to 1940. The greatest output is in September, October and November and the lowest around May and June. The variations are clearly brought out in Table 2, and the figures

show the extent to which we are now dependent on grass for our home supplies of beef. This change in feeding practice has had the effect of lengthening the average period of fattening and of raising the average age of the cattle at slaughter. Many of the stores which, prior to 1939, would have been fattened in the yards now require to be finished on grass and the younger stores come out of the yards in a leaner condition, age for age, than they did formerly.

TABLE 2.

SEASONAL VARIATIONS IN THE SUPPLIES OF HOME-KILLED BEEF, 1927-31, 1935, 1946 AND 1947.

	Indices of supplies of home-killed beef			
	1927-31 (a)	1935 (b)	1946 (c)	1947 (c)
January	113	100	63	63
February	96	100	69	58
March	100	103	78	65
April	93	104	94	90
May	87	104	80	89
June	78	95	43	54
July	83	89	100	75
August	93	92	126	112
September	103	106	150	175
October	117	107	172	188
November	121	104	147	150
December	116	96	78	79
Monthly average	100	100	100	100

(a) Index of the seasonal variation in th e estimated supplies of home-killed beef and veal in Great Britain—Ministry of Agriculture, Economics Series No. 39.

(b) Cattle certified for subsidy in the United Kingdom, 1935. Quoted by E.Ll. Harry. Journal of Agricultural Economics Society. Vol. IV. p. 270.

(c) Index of seasonal variation of numbers of cattle, excluding calves purchased for slaughter in Great Britain. Calculated from the monthly figures in the Monthly Digest of Statistics.

It is with these facts in mind that figures for store and fat prices must be interpreted. The margin between these prices now covers a lengthier feeding period involving not only a greater expenditure of labour but also increased time-lag between expenditure and realisation.

Store Prices : 1936 *to* 1948.

Table 3 shows the prices of store cattle from 1936 to 1948. During the period immediately following the depression of the early 1930's the prices rose slowly helped by subsidy payments for fat cattle.

TABLE 3.

ANNUAL AVERAGE PRICE OF TWO YEAR OLD SHORTHORN STORES (PER HEAD)

	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948
	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.	£ s,	£ s.	£ s.	£ s.	£ s.	£ s.
First quality	14 6	16 2	16 8	17 1	20 11	24 17	26 4	27 12	28 11	28 13	30 15	33 11	38 14
Second quality	12 4	13 17	14 6	14 16	17 9	20 14	21 16	22 11	23 7	23 9	25 5	27 9	31 17

Source : Ministry of Agriculture and Fisheries.

TABLE 4.

ANNUAL AVERAGE PRICES OF FAT CATTLE PER LIVE CWT.

	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Price	35 9	40 5	41 2	48 0	60 0	62 7	67 8	69 3	70 9	72 10	77 0	89 11	98 8
Index (1927–29 =100)	73	82	84	97	122	127	137	141	144	148	156	183	201
Index including cattle subsidy.	83	92	95	—	—	—	—	—	—	—	—	—	—

Source : Ministry of Agriculture and Fisheries.

After 1939 there was a much more rapid rise corresponding to the general increase in farm prices and in particular to the increased prices offered for fat stock from 1940 onwards.

While the supply of store cattle coming forward at any given period is limited to the total which has actually been reared, the demand depends to a great extent upon the feeders' expectation of profit. Decision of feeders will be based upon anticipated margins, the available supplies of foods and the costs of feeding.

Grass is the cheapest available food and is also the least costly to feed. The supply is, however, seasonal and this has an important effect on the prices of store cattle. These are high in the spring and tend to fall over the grazing season. A flush of aftermath may cause them to rise temporarily, especially if, owing to a dry spring, they have been abnormally low, but the lowest point is usually reached in October. In November and December prices of stores usually rise in response to the demand for cattle for yard feeding.

The depression of the 1930's was particularly acute in its effect on agriculture. The general character of the depression, which affected the whole of the industry, provides a partial explanation of why store cattle were steadily being produced during that period. In many cases changes in the utilisation of farm resources did not appear likely to yield increased profits and traditional farming practices were continued in the hope that conditions would improve. Breeders and rearers were helped by plentiful supplies of cheap corn and feeding stuffs. Prices remained very low from 1930 to 1936 and after a rise in 1937 they fell again in the two succeeding years.

After 1939, in spite of an increased emphasis on arable cropping, the prices offered for fat cattle by the Ministry of Food were sufficiently high to prevent any large fall in the numbers of stores reared. Prices of fat cattle have been increased steadily and prices of store cattle have risen in sympathy up to 1947. In that year there was a drought and consequently shortages of all kinds of feeding stuffs. Although prices of fat cattle were greatly increased there was a less than corresponding rise in store prices but by the spring of 1948 they were approaching their previous relationship to one another. In the spring of 1949 store prices reached a record high level.

Prices of Fat Cattle: 1936 *to* 1948.

In the pre-war period the prices of fat cattle varied over the year. They were lowest in the autumn or early winter when

supplies of cheaply fattened grass fed cattle were greatest and tended to be at their highest in May or June, at the end of the winter feeding period. This variation was not always very marked and was sometimes altered either as a result of changes in the supply of cattle coming forward or as a result of external influences such as variations in the supply of imported meat.

From 1935 onwards average prices rose steadily year by year as the general economy slowly recovered from the crisis, but did not reach the 1927 to 1929 level until after the outbreak of war in 1939. From August to December 1939 prices rose by nearly 20 per cent and in January 1940 complete control was imposed by the Government and the Minister of Food became the sole buyer. Prices were fixed in advance, the schedule of prices varying according to the class and grade of animal, and the time of year at which the animal was sold.

Between 1940 and 1946 prices were allowed to rise fairly steadily. The Government had complete control over the prices paid to farmers for all of the major farm products. The price differentials between different products were so arranged as to secure a high output of milk, wheat and potatoes, and at the same time to raise the total agricultural production of the country. A certain measure of compulsion was used but the main incentive was provided by prices. Fat cattle, therefore, were bought at prices high enough to maintain output at a level not greatly below that of 1939, without interfering with the production of the more important commodities. After 1945 a change of emphasis was made in the agricultural programme but conditions were not ripe for any drastic change and it was not until August 1947 that a big increase in prices for fat cattle was introduced. The very bad weather conditions in the winter and spring of 1946-47 had adversely affected livestock production and difficulties were increased by the drought during the summer of 1947. In order therefore, to expand the output of beef a price increase of 14s. 4d. per cwt. was granted in August 1947 and the increased price was continued, with slight modification, in 1948.

Both before and during the period of controlled prices, cattle have been graded and paid for on the estimated killing out percentage. In early 1940 the top grade (SS) was 60 per cent or over but later in the year the highest grade was eliminated in order to prevent wastage of foods by too careful "finishing" and it was not until 1944 that the Super Special grade (SS) was again introduced for animals estimated to kill out at above 59 per cent. In the same year the quality premium

TABLE 5.

FEEDERS' MARGINS—ENGLAND AND WALES—SUMMER PERIOD—SHORTHORNS

YEAR	March and April Mean Prices	August, September & October Mean Prices		Differences		August, September & October Mean Prices and Subsidy	
	2 year old stores	Fat cattle per 10 cwts. live weight		Total	As percentage of store prices	Prices, fat cattle per live cwt.	Prices and Subsidy per live cwt.
	Per head	Mean price	Mean subsidy				
	£	£	£	£	%	shillings	shillings
1936	13.00	17.36	2.50	4.36	33	34.73	39.73
1937	14.93	20.21	2.55	5.28	35	40.42	45.52
1938	16.52	19.09	2.91	2.57	16	38.18	44.00
1939	15.58	21.19	2.91	5.61	36	42.39	48.41
1940	18.85	31.41	—	12.56	67	62.82	62.82
1941	22.06	30.17	—	8.11	37	60.33	—
1942	24.17	33.17	—	9.00	37	66.33	—
1943	24.02	33.17	—	9.15	38	66.33	—
1944	26.54	34.47	—	7.93	30	68.94	—
1945	26.06	35.81	—	9.75	37	71.61	—
1946	28.42	38.43	—	10.01	35	76.86	—
1947	29.06	45.83	—	16.77	58	91.67	—
1948	34.90	48.76	—	13.86	40	97.53	—

was introduced in order to encourage the production of good quality cattle. The premium is only paid for cattle between certain specified weights, graded at 55 per cent or above. In 1948 modifications were made in the price structure with the same aim in view. The flat increase of 14s. 4d. per cwt. was withdrawn in favour of a differential increase which ranged from 10s. 0d. in the lowest grades to 14s. 9d. in the highest, and had the effect of discouraging the sale of cattle which would only make the lower grades.

Feeders' Margins.

The margin between the prices paid for stores in the spring and the prices later realised for the same animals fat is of great importance to the feeder. Out of this margin all expenses must be paid and the balance represents profits. The following table has been constructed on the assumption that stores are bought during March and April at the average prevailing price and are sold during August to October, again at the average prevailing price for fat cattle, at a net live weight of 10 cwts.

It will be seen that up to 1939 the margin for a 10 cwts. fat animal amounted to about £4 10s. 0d. The great increase in the prices paid for fat cattle in 1940 gave feeders a very wide margin in that year but from 1941 to 1946 the margin was fairly steady between about £8 and £10 per beast. In 1947 the margin was again very wide, but it fell again in 1948 to a little under £14.

During the period under review prices have nearly trebled but in 10 out of the 13 years the feeders' margin has been approximately one third of the mean store price and it would appear that this can be regarded as the normal expectation under stable conditions.

Prices and Margins in 1946 *to* 1947.

The seasonal variations in prices of fat cattle have a considerable effect on the margins and it is useful to consider the actual changes which occurred in the two years dealt with in the main body of this enquiry. Several changes were made in the schedules of prices at various times during 1946 and 1947 and these are followed through from March to November in Table 6, for a single grade. In this table are listed the various price schedules as they were successively announced.

The series of prices announced in March 1946 shows the seasonal variation with a gradual fall from July to the end of September and a subsequent rise to June of the following year. The maximum

TABLE 6.

PRICE CHANGES FROM MARCH TO NOVEMBER IN 1946 AND 1947.

HOMEBRED STEERS AND HEIFERS GRADE A+(57%.).

1946				1947				
Period beginning	Price per live cwt. Date announced			Period beginning	Price per live cwt. Date announced			
	June 1945	March 1946	July 1946		March 1946	July 1946	March 1947	August 1947
	s. d.	s. d.	s. d.		s. d.	s. d.	s. d.	s. d.
March 18th	80 0			March 17th	83 0	86 0		
				March 31st			90 6	
April 8th	80 0			April 7th	83 6	86 6	91 0	
May 6th	81 0			May 5th	84 0	87 0	92 0	
June 3rd	81 6			June 2nd	84 6	87 6		
				June 16th			91 0	
				June 23rd			90 0	
July 1st		83 6		June 30th			89 0	
July 15th		83 0						
July 22nd		82 6						
July 29th		82 0						
Aug. 5th		81 6	82 0	Aug. 4th			87 0	
Aug. 12th		81 0	81 6					
Aug. 19th		80 6	81 0	Aug. 18th			86 0	
Aug. 26th		80 0	81 0	Aug. 25th				100 4
Sept. 2nd		79 6	80 6	Sept. 1st			85 0	99 4
Sept. 9th		79 0	80 0					
Sept. 16th		78 6	79 6	Sept. 15th			84 0	98 4
Sept. 23rd		77 6	78 6	Sept. 22nd			83 0	97 4
Sept. 30th		76 6	77 6					
				Oct. 6th			82 6	96 10
				Oct. 13th			82 0	96 4
Nov. 11th		77 0	78 6	Nov. 10th			83 0	97 4
Nov. 18th		78 0	79 6	Nov. 17th			84 0	98 4

Source: Ministry of Food.

fall of 7s. 0d. per cwt. represents a reduction of over £3 10s. 0d. on an average fat animal sold. When stores were being purchased in March and April of 1946 it was with this schedule in mind. In July, however, further increases were granted which added a varying amount to the schedule prices ranging from 6d. per cwt. in early August to 1s. 6d. in November and 3s. 0d. in March, 1947. These increases helped to increase the margin which feeders received by about £1 per beast above previous expectations. The increases were granted to meet the increase in farm workers' wages which came into operation in July 1946, and which had not been included in the owners' expectations.

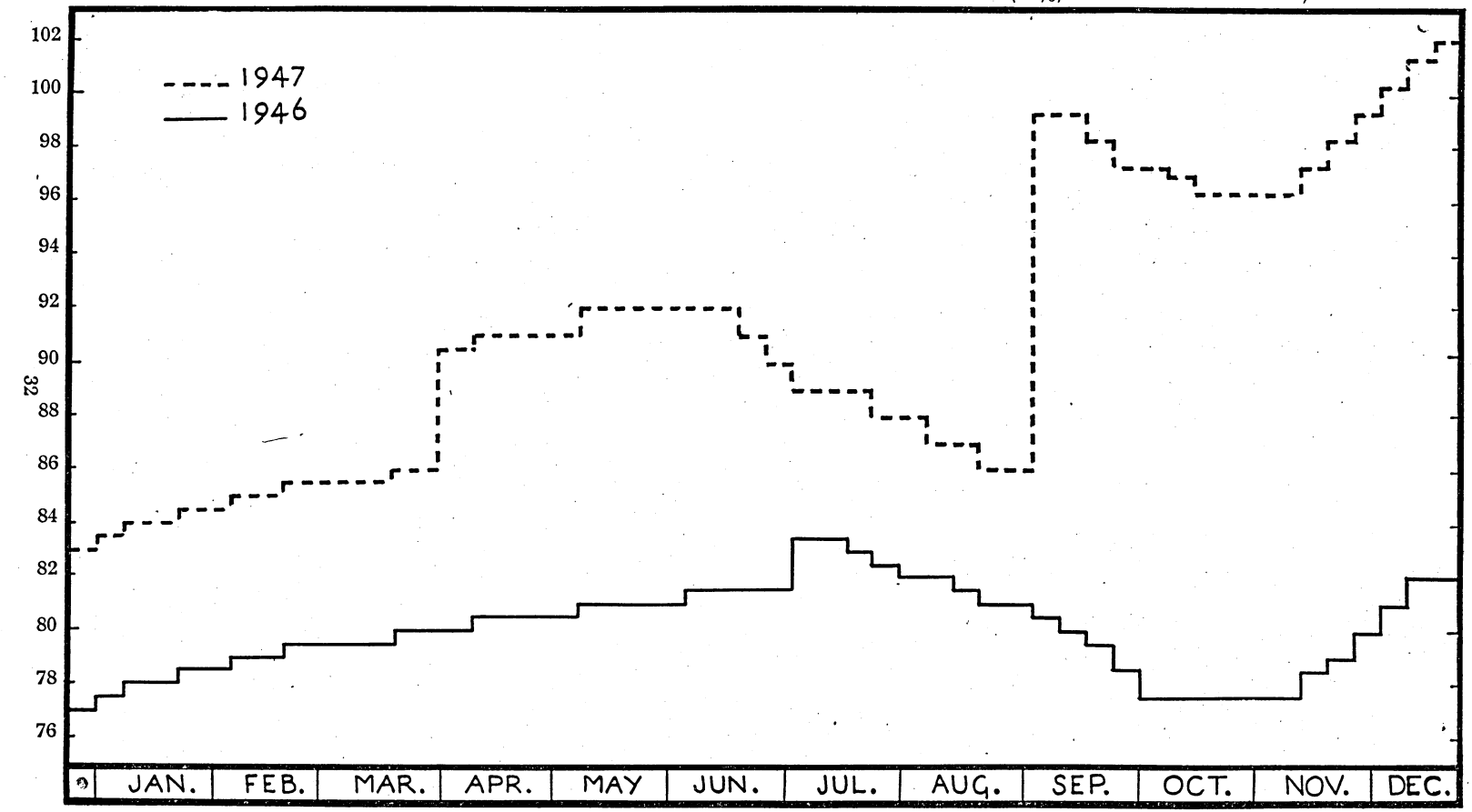
In March 1947 a further increase in fat cattle prices was granted, as a result of negotiations between the farmers' Unions and the Departments of Agriculture at the annual Price Review in the the previous month. By then the changing emphasis of Government policy was becoming apparent and a further very substantial price increase was granted in the following August, to meet not only the increased costs of higher wages, but in addition to provide an added incentive towards increased beef production.

In addition, as a result of the very difficult season which feeders experienced, it was decided to give the whole increase immediately instead of spreading it over a period of months. This increase undoubtedly prevented heavy losses but the effect was uneven. Feeders who had sold out their cattle early because of the drought suffered heavily as compared with those who had kept their cattle and thus benefited from the increase.

Prices of stores moved in sympathy with feeders' expectations of profit. There was a steady rise from January to May 1946 and then a slow decline until early November followed by a rise during November and December. In 1947, on the other hand, although prices were higher in January than a year previously they did not rise until mid-April. The reason is to be found in the severe winter weather and late spring experienced during that year which was accompanied by a shortage of keep on many farms. The normal competition by buyers was therefore absent and it was not until after the announcement of the new prices for fat cattle which had been agreed at the February 1947 Price Review that the prices of stores began to rise. Prices continued to rise until the middle of June, by which time grass keep was already becoming scarce. A rapid decline followed and the lowest prices of the summer were reached in

CHART 3.

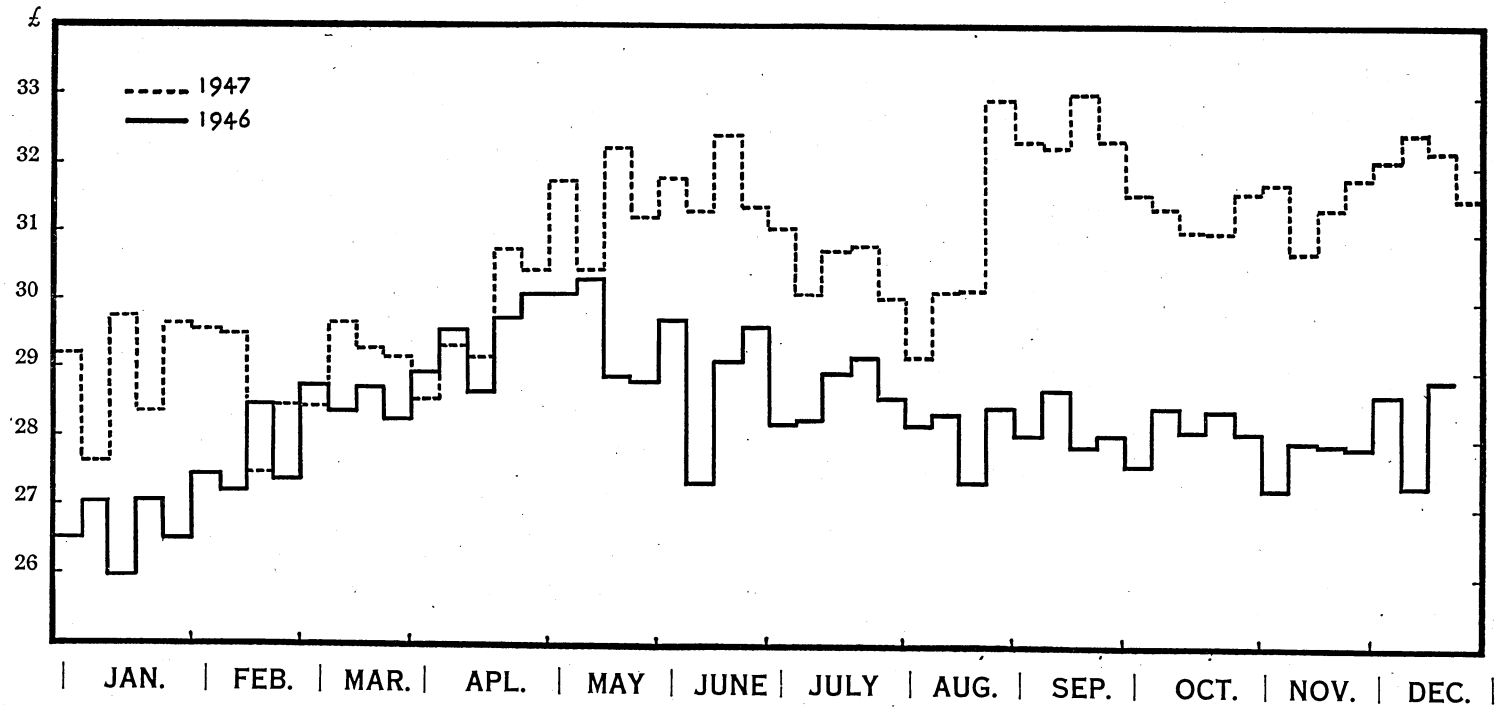
PRICES OF HOMEBRED STEERS AND HEIFERS PER CWT. GRADE A (57%) IN 1946 AND 1947)



Source: Ministry of Food.

CHART 4.

WEEKLY AVERAGE PRICES OF TWO YEAR OLD STORE CATTLE IN 1946 AND 1947.



the middle of July. Prices remained low until the middle of August when the increase of 14s. 4d. per cwt. for fat cattle was announced. An immediate rise in the price of stores followed, and the new level was maintained until the latter half of September, when a further sharp fall occurred. This fall is explained by the fact that by then farmers had realised that there would be a shortage of feeding stuffs during the winter as a result of the poor harvest. From the middle of October to the end of the year, however, the normal seasonal rise took place.

CHAPTER 4.

BEEF CATTLE IN THE EAST MIDLANDS.

As mentioned earlier the home produced beef supplies of this country come from three sources; cattle reared specifically for beef production at home, stores imported for feeding, and cows and heifers transferred out of the dairy herds. The bulk of home produced beef is from bullocks and a fair idea of the importance of fattening in any county can be derived from a study of the numbers of male cattle other than bulls over two years of age which are returned by farmers in their quarterly returns. For this purpose the best figures are from the June 4th Returns as at that time the spring sales are over and the biggest transfers from store rearers to feeders are completed. It should be noted, however, that these figures are only indicative. They are not exclusively fattening stock and at least a proportion will be stores for fattening the following winter or summer.

In England and Wales the number of male cattle over two years old has fluctuated in recent years between the low level of 380,000 in 1941 and the high level of 469,000 in 1946. Since 1946 there has been a decline of 20,000 in 1947 and a further decline of 11,000 in 1948. Over the four years 1945 to 1948 the average has been about 450,000 or 19 for every 1,000 acres of crops and grass and 50 for every 1,000 acres of grazing land, (permanent and temporary

TABLE 7.

MALE CATTLE OVER TWO YEARS OLD IN THE EAST MIDLAND COUNTIES (AVERAGE OF YEARS 1945 TO 1948)

County	Average numbers of Two Year Old Male Cattle		
	Total No.	Per 1,000 acres of crops and grass	Per 1,000 acres of grazing land
Derbyshire	1,300	3	7
Leicestershire	18,326	42	99
Lincs. (Kesteven)	10,198	25	109
Lincs. (Lindsey)	19,461	24	82
Nottinghamshire	12,055	30	91
Rutland	4,468	53	144
England & Wales	451,000	19	50

Source : Ministry of Agriculture & Fisheries.

pastures used for grazing, but excluding rough grazings). The East Midland Province had, during these years, an average of nearly 66,000 of these cattle on the farms at June 4th. This is about 14½ per cent of the total number on a area of some 10½ per cent of the area of England and Wales (excluding rough grazings). If we exclude Derbyshire, in which county beef production is relatively unimportant, we find that the proportions become 14¼ per cent of the two year old male cattle on about 8¾ per cent of the total area of crops and grass.

The East Midlands is undoubtedly an important beef producing area, and, apart from Derbyshire, all the counties contribute considerably towards the total output.

From the Table it will be seen that in all the counties of the East Midlands except Derbyshire the numbers of cattle, both per thousand acres of crops and grass and also per thousand acres of grazing, are well above the national average. In each of the six counties the distribution is uneven, of course, and the high concentrations are found on the best pastures.

The recent downward trend in numbers is marked in most of the counties and numbers in the province as a whole have decreased in both 1947 and 1948. In 1946 there were 68,476 of these cattle returned at June 4th. By June 1948 there were only 60,977, a drop of almost 11 per cent. This is nearly double that which took place in England and Wales over the same period.

The background of the industry also varies from county to county and it is interesting to compare the numbers of male cattle of different ages (Table 8). Taking England and Wales as the basis for comparison the figures are as follows.

TABLE 8.

NUMBERS OF MALE CATTLE IN ENGLAND AND WALES.

Class	Numbers at June 4th in each year.					
	1942	1944	1945	1946	1947	1948
	('000)	('000)	('000)	('000)	('000)	('000)
Two years and above	442	428	450	469	449	438
One to two years	367	304	315	301	292	276
Under one year	370	320	296	284	279	356

Source: Ministry of Agriculture and Fisheries.

The explanation of the higher numbers in the two year old class than in either of the other classes is twofold; on the one hand this class covers more than a twelve month range of ages, some of the cattle being over three years of age, and on the other, this class includes cattle imported from Scotland and Ireland for fattening in England. The serious decline in rearing bullocks is brought out very clearly here and 1948 is the first year which shows a reversal of trend. Even in 1948, supported by the calf subsidy, the number of bullocks under one year is far below its possible maximum. At the same date there were over 1,100,000 heifer calves returned in the same age group and approximately that number of bull calves had been born in the previous twelve months, of which only 356,000 had survived. This increase will not begin to show itself in the two year old class until 1950.

The pattern of the bullock population follows a different trend in the different counties. In Derbyshire, where in any case the number is small, there has been a decline in all age groups between 1942 and 1947. Over this period the number of bullocks in this county between one and two years of age has been consistently lower than the number under one year and also those over two years, indicating that there has been either a steady export of yearlings from the county or that many of the calves are sold for veal, and a steady, but smaller, import of two year old bullocks for fattening in those areas where this is possible. Most of the county is devoted to milk production and beef production is negligible over most of the area.

Kesteven, Lindsey and Nottinghamshire are arable counties with a considerable output of beef and similar tendencies have been apparent in all three in recent years. In each the number of bullocks over two years increased between 1942 and 1946 or 1947 and then declined. In these three counties there has been a steady decline in bullock rearing, as reflected in the numbers under one year and of yearlings, although this has been least marked in Lindsey. The figures also show that in nearly every case yearlings are brought in from outside and the farmers are even more dependent upon outside supplies of two year old bullocks for fattening, this being most marked in Nottinghamshire.

Leicestershire and Rutland stand together as traditional grass feeding counties dependent to a very large extent on external supplies of stores. In both counties the numbers of two year old bullocks had already declined considerably by 1942 and fell still further in 1943 and 1944. Numbers rose in 1945 and were maintained in 1946 and 1947 only to decline again in 1948 to more than 20 per cent

below the 1942 level. Rearing on the other hand, although very much below the level required to make the counties self-supporting in stores for feeding, declined until 1945 but has begun to show an upward trend during the last two years.

The figures for the different counties show the great importance of beef production in the East Midlands. Beef production is supported by a large scale store rearing industry within the province supplemented by imports of stores from outside, including large consignments of Irish Cattle. Lincolnshire, the main centre of rearing, supports its own breed of beef cattle, the Lincoln Red Shorthorn. The cattle are found mainly on the heavier soils capable of growing good grass. Many of the farmers on these soils breed, rear and fatten their own cattle. On the other hand the arable farms on the fens and on the warp soils of the lower Trent provide a market for store cattle to produce in yards the manure needed for the maintenance of soil fertility. In Nottinghamshire much of the rearing and fattening is done on the same farms on the clay soils in the eastern half of the county. By way of contrast the typical Leicestershire grazier does not rear his stores, but buys them in to feed on the luxuriant growth of grass which his pastures produce. This type of farming has become localised in the Welland Valley and the area around Market Harborough, where, prior to 1939, hardly a field was ploughed and almost the only livestock to be seen were mature feeding cattle and sheep. The ploughing up campaign has restricted the system rather than modified it. The grass is unsuitable for younger stock and buildings for wintering the stock are non-existent so that the old system has continued side by side with the production of arable crops from the ploughed up pastures. Some fattening is of course carried out in other parts of the county, particularly along the river valleys. Store rearing may be associated with milk production from dual purpose cattle but is secondary to the needs of dairy farmers, and quite insufficient to meet the needs of the graziers. In Rutland the position is similar to that in Leicestershire, with grass feeding in the Welland Valley area which runs across from Market Harborough. Most of the cattle are found in the western half of the county while in the eastern arable part sheep are more important.

Derbyshire is unimportant either as a beef store raising or fattening area.

TABLE 9.

NUMBERS OF MALE CATTLE IN THE EAST MIDLANDS COUNTIES.

NOTTINGHAMSHIRE.

Class	Numbers at June 4th in each year.					
	1942	1944	1945	1946	1947	1948
Two years and above	11,750	11,733	12,068	12,722	12,296	11,135
One to two years old	6,317	5,949	6,143	5,769	5,400	5,228
Under one year	5,954	6,064	5,243	5,456	5,233	5,662

LEICESTERSHIRE.

Class	Numbers at June 4th in each year.					
	1942	1944	1945	1946	1947	1948
Two years and above	22,243	16,735	18,706	19,046	18,182	17,370
One to two years old	6,984	5,693	6,544	5,901	5,976	6,261
Under one year	6,583	6,166	5,992	6,053	6,018	7,048

RUTLAND.

Class	Numbers at June 4th in each year					
	1942	1944	1945	1946	1947	1948
Two years and above	5,095	4,438	4,627	4,584	4,645	4,015
One to two years old	2,329	2,100	2,288	2,204	2,064	2,126
Under one year	1,649	1,691	1,663	1,564	1,631	1,843

KESTEVEN.

Class	Numbers at June 4th in each year.					
	1942	1944	1945	1946	1947	1948
Two years and above	8,973	9,862	10,136	10,502	10,605	9,548
One to two years old	7,366	7,555	7,486	7,330	6,614	6,097
Under one year	6,801	6,557	6,269	6,036	6,001	6,252

TABLE 9 (Continued).

LINDSEY.

Class	Numbers at June 4th in each year.					
	1942	1944	1945	1946	1947	1948
Two years and above	16,580	19,509	20,403	20,212	19,552	17,676
One to two years old	14,436	14,462	14,984	14,975	13,838	12,600
Under one year	13,637	14,262	13,578	12,462	12,524	12,975

DERBYSHIRE.

Class	Numbers at June 4th in each year.					
	1942	1944	1945	1946	1947	1948
Two years and above	2,011	1,376	1,485	1,359	1,124	1,233
One to two years old	1,284	953	1,047	941	592	576
Under one year.	2,172	2,053	1,389	1,313	1,198	1,461

Source : Ministry of Agriculture and Fisheries.

CHAPTER 5.

THE SUMMER FATTENING OF CATTLE IN THE EAST MIDLANDS IN 1946 AND 1947.

The fattening of cattle falls into two distinct, although interrelated, compartments. Winter fattening is practised largely in the arable districts where the dung is required for maintaining soil fertility under systems of intensive cash cropping. Summer fattening on the other hand is found mainly on heavy land capable of maintaining good grassland in high productivity. Although the two systems are largely complementary the bulk of the beef output at the present time is from grass fattening, and, because of the shortage of feeding stuffs, many cattle which up to 1940 would have been finished in yards are kept as stores to be finished on grass in the following year.

In 1944-45 an enquiry [1] was conducted into yard feeding the East Midlands and this was followed by enquiries into grass feeding in in 1946 and 1947. In 1946 there were 37 farmers occupying farms widely scattered over Leicestershire, Rutland, Kesteven, and Lindsey who provided records of 55 separate groups of cattle. In 1947, under more difficult conditions, 30 records were completed on 22 farms. The location of the individual farms is shown on the map (page 5). Most of the farms were on the lower land of the river valleys on soils capable of producing heavy yields of grass from the permanent pastures. Reseeded fields were less frequently used for fattening but out of the 55 records completed in the first year 16 include a charge under this heading for a part of the grazing land used.

The Costs of Grazing and the Period of Feeding.

The main item in the cost of fattening on grass is rent and other expenditure on pastures. Both in 1946 and 1947 the cost of grazing accounted for over 75 per cent of the total cost. Considerable care was taken in arriving at the grazing costs of each field or group of fields grazed by the cattle. Just over 1,600 and 965 acres were costed in 1946 and 1947 respectively.

Records were kept of all grazing on the fields by each class of livestock. The grazing periods of each of the different classes were converted to units of grazing and the costs of the pastures allocated to each. In most cases the bulk of the costs of grazing had to be

(1) *Bond & Makings.* The Economics of Yard Cattle Feeding 1946. Midland Agricultural College, Sutton Bonington.

TABLE 10

AVERAGE GRAZING COSTS IN 1946 AND 1947. (Costs per acre.)

	1946	1947
	s. d.	s. d.
Rent	43 0	44 6
Lime and manure (less residues)	8 0	10 0
Hedge and ditch maintenance	7 0	7 6
Reseeding charges	3 6	2 6
Cultivations	4 6	5 6
Sundries	—	—
TOTAL COST	66 0	70 0
Number of grazing units per acre	148	124
Cost per unit	5¼d.	6¾d.

charged to the fattening cattle. In 1946 the average output of grass per acre was sufficient to provide 148 units of grazing, that is to feed a bullock for 148 days or approximately five months at a cost of 66s. 0d. or at a cost of 5¼d. per day. In 1947 the summer drought seriously affected grass production and the average output fell to 124 units at a cost of 6¾d. Because of the drought in 1947, a smaller proportion of the cattle were successfully fattened than in 1946.

Grazing costs on the separate farms varied considerably in both years, depending on the actual rent or rental value of the land, the work done on the fields and the manures applied. Detailed tables of costs per acre are given in the appendix. Rent varied between 16s. 6d. and 120s. 0d. per acre in 1946 and between 20s. 0d. and 120s. 0d. in 1947. The range in total costs of grazing was from 33s. 6d. to 146s. 0d. per acre in 1946 and from 40s. 0d. to 145s. 6d. in 1947. The corresponding range in the costs per unit of grazing were from 2d. to 1s. 3d. in 1946 and from 3d. to 1s. 3½d. in 1947. In 1946 however, 80 per cent of the costs were between 3d. and 6¾d. per unit, while in 1947 two thirds were between 4d. and 8½d.

TABLE 11.

OUTPUT OF GRASS AND GRAZING COSTS IN 1946.

Range of output	Average output	Average cost of grazing	Average rent	Average cost of grazing
Grazing units per acre	Grazing units per acre	Shillings per acre	Shillings per acre	Pence per unit
Up to 140	116	70	47½	7½
141 to 160	150	60½	44	4¾
161 to 200	180	68½	41	4½
Over 200	226	58	36	3

TABLE 12.

OUTPUT OF GRASS AND GRAZING COSTS IN 1947.

Range of ouput	Average output	Average cost of grazing	Average rent	Average cost of grazing
Grazing units per acre	Grazing units per acre	Shillings per acre	Shillings per acre	Pence per unit
Up to 120	104	73	45½	8½
121 to 140	126	78	54	7½
Over 140	160	58	40	4½

Tables 11 and 12 show the average output measured in grazing units, and the average cost of grazing for different ranges of output. Not unexpectedly, low cost per grazing unit is associated with high output in both years, and similarly high cost per unit goes with with low output. Rents and costs of grazing, however, tended to be low on the most productive pastures. This illustrates the point, dealt with later, that productivity is only one of many factors influencing the level of rent. Nor can it be assumed that it was uneconomic for those farmers who incurred high costs of grazing to have done so. A full analysis of the whole farm economy would be necessary before it could be stated with safety that any particular costs were too high in relation to the other factors affecting the farm organisation.

The feeding period also varied between wide limits. In 1946 the average period was 139 days or about four and half months, but seven groups of cattle were on grass for an average period of three months or less and only five groups were grazed for an average period of more than six months. In 1947 the average grazing period was 130 days or just over four months. In this year, however, only 60 per cent of the cattle were sold fat compared with 86 per cent in the preceding year.

Rent.

It might be thought that, as a result of the important place taken by the cost of grazing in the total costs, there would be some correspondence between rents or grass cost and liveweight increase or profit. In fact careful analysis shows that there is *no* correspondence. For the purpose of this analysis the figures for 1946 were taken because that year was more normal than 1947 and the sample was larger. The records were arranged in four groups according to the average rent or rental value of the land grazed. With just over 1,600 acres of grass a good sample was obtained for each range of rents, the small-

est being 276 acres rented or valued at between 25s. 0d. and 35s. 0d. per acre.

TABLE 13.

ANALYSIS ACCORDING TO RENT OR RENTAL VALUE

	Rents or Rental Values.			
	I Up to 25s. 0d.	II 25s. 0d. to 35s. 0d.	III 35s. to to 45s. 0d.	IV Over 45s. 0d.
Total acres costed	291½	283	375½	661½
Rent per acre	21s. 0d.	30s. 0d.	40s. 6d.	58s. 3d.
Total grazing cost per acre.	50s. 3d.	55s. 0d.	61s. 0d.	77s. 6d.
Grazing units per acre	136	161	157	140
Grazing units per £1 rent	127	107	78	48
Grazing units per £1 grazing costs	54	59	51	36
Liveweight increase per 100 grazing units.	1.42cwts.	1.47cwts.	1.19cwts.	1.26cwts.
Liveweight increase per acre	1.93cwts.	2.36cwts.	1.87cwts.	1.76cwts.
Liveweight increase per £1 total grazing cost	0.77cwts.	0.86cwts.	0.61cwts.	0.45cwts.
Profit per acre (no allowance for overheads)	80s. 0d.	149s. 0d.	88s. 0d.	78s. 0d.

From the table it will be seen that the additional expenditure other than the rent incurred in maintaining the pastures diminished as rent increased. Rents ranged from 21s. 0d. average in Group I to 58s. 3d. average in Group IV and the total grazing cost showed a much smaller range from 50s. 3d. to 77s. 6d. Grazing units per acre do not show the expected upward trend except from Group I to Group II, and the number of units per acre provided by the highest rented land is scarcely greater than for the cheapest land. Grazing units per £1 of total grazing cost do, however, show some uniformity as between Groups I, II and III but Group IV was well below the other Groups. The explanation is not that the grazing units provided by the more highly rented grass were equivalent to a greater increase in liveweight. On the contrary 100 units of grazing provided on the farms in Groups I and II an average liveweight increase of 1.42 cwts. and 1.47 cwts. respectively and on the farms in Groups III and IV only 1.19 cwts. and 1.26 cwts. The average liveweight gain per £1 grazing cost is in fact highest in Group II and lowest in Group IV and it is not surprising that the profit per acre is also highest for Group II and lowest for IV. This table again brings out the importance of securing cattle of a type that will rapidly convert grass into beef and

show a rapid increase in liveweight as well as grading well when they are ready for slaughter. A further conclusion is that much of the grass which was rented or valued at more than 35s. 0d. per acre was in fact no better than grass on other farms for which a much lower rent was paid. Rents are greatly affected by personal and social factors and are therefore unreliable as indicators of quality of land or pasture, and these factors to some extent account for the high rents paid in certain cases. A further point which should not be overlooked is the effect of the weather in 1946. The summer was wet and it may well be that much of the poorer grass area in the sample benefited most from the rain. It is also true that the cattle fed on the more costly grass graded better than the others. This explains why it is that the cattle in Group IV show a profit per acre not far below that for Groups I and III in spite of a smaller liveweight increase per £1 grass cost.

Other Costs.

Apart from the cost of grazing the main costs associated with grass feeding are labour and supplementary foods. In addition a number of minor costs may be incurred such as medicines and dressings, veterinary attention and the transport of the cattle. These items have been grouped together in the summaries under the heading of sundries.

Costs of labour varied considerably. Normally the cattle are looked at daily and the time taken depends largely on the number of cattle being fattened, the distance of the grazing fields from the farmstead and the ease with which the daily shepherding can be fitted in with other work. The most economical arrangement is to have the cattle near at hand, that is, either near the farmstead or near where the men are generally working during the summer months. If this can be done much time can be saved by the elimination of unnecessary journeys and the shepherding can be done at any convenient time. Where a large number of cattle are involved distance is less important, and under any comparable conditions the costs per head of shepherding will be less. The average labour cost was about 8s. 0d. per beast during the whole grazing period in 1946 and 11s. 0d. in 1947. The higher cost in the latter year can be accounted for by the smaller bunches of cattle fed, the need for greater care in grazing as a result of the drought, the need for more frequent movement of the cattle to fresh pastures and the increased level of supplementary feeding practised. In addition wage rates rose by 10s. 0d. per week in July,

1946 and again in August, 1947. The effect of these changes was to increase costs by about 1s. 0d. per head in 1947 over the corresponding costs in 1946.

Costs of labour exceeded 20s. 0d. per head in only two cases in 1946 and in eight cases in 1947. These comparatively high costs were all incurred on small bunches of cattle. On the other hand about 60 per cent of the records in both years show costs of labour at or below the average and it is clear that these could not be reduced greatly below their present level which represents about six hours work per beast during the grazing period. In 1946 three records gave no separate statement of costs of labour; in one case the grazing was hired at an inclusive charge which included shepherding and in the other cases it was not possible from the records to separate shepherding from other work being done in the fields and the cost is included in the grazing charge. In these cases the amount of shepherding done was small.

In 1946 some hand feeding was done in 18 out of 55 cases. The average cost over the whole of the cattle was about 5s. 0d. per head, or, averaged over those receiving the extra feed, 22s. 0d. per head. Generally speaking it was the less profitable cattle that had the supplementary feeding. In many cases extra feed was given to bunches of cattle which were not making satisfactory progress on grass alone. However these cattle failed to fatten quickly enough even with extra feed. Careful consideration of the results points to the conclusion that, at any rate while feeding stuffs are both expensive and in short supply, it is not sound policy to use them in an attempt to secure good grading results from such animals. Better results could be obtained by cutting the losses on the cattle and using the feed for other more profitable purposes.

In 1947 the drought made supplementary feeding necessary on many more farms than in 1946 and out of 30 groups of cattle no less than 13 received extra feed. The average cost over the sample was about 9s. 0d. per head, nearly double the corresponding figure for 1946. The average cost of the supplement to those cattle receiving it was 26s. 0d. Again the extra feed went mainly to the less profitable cattle but this tendency was not so strong as in the previous year.

The total of those items of cost comprised under the heading of "Sundries" was small and only in two cases exceeded 10s. 0d. per head. Transport was, on most farms, the most important single item and varied according to the distance to the collecting centre and the proportion of the cattle sold fat.

Liveweight Increases in 1946 *and* 1947.

In 1946 full information of the estimated weight of the cattle at the commencement of grazing was available for 1,195 stores and these averaged almost exactly 10 cwts. per head. During the grazing period the cattle put on approximately 197 lbs. in weight per head. In 1947 cattle weighing just under 10 cwts. each put on an average of 185 lbs. These are overall figures which include the estimated gains in weight of those cattle which were not sent to the collecting centres for slaughter. The weights of the cattle actually graded in 1946 averaged 11.9 cwts. and in 1947 the average weight was 12.2 cwts.

TABLE 14.

SUMMARY OF INCREASES IN LIVEWEIGHT AND VALUE IN 1946 AND 1947.

	1946	1947
Total number of stores (1)	1,195	617
	per head	per head
Ingoing weight	10.0 cwts	9.9 cwts
Outgoing weight	11.8 ,,	11.5 ,,
Weight increase	198 lbs.	185 lbs.
Ingoing value	£39	£43
Outgoing value	£47	£51
Value increase	£8	£8

(1) Total numbers for which full information was available of ingoing and outgoing weights.

The liveweight gain of the cattle in each of the two years provides an interesting comparison. In 1946 the grazing of one acre of grass resulted, on average, in a liveweight gain of 211 lbs. In 1947 the corresponding figure was 176 lbs.

The profit accruing to the feeders depends on the price difference between the ingoing and outgoing cattle. It used to be said that the grazier could show a reasonable profit if he bought in cattle at a price per cwt. not greater than the price at which he sold his finished product. Judged on this standard the average results were on the right side, with the average store price per cwt. below the average fat price in each year. It should be noted, however, that in 1946 grass was plentiful and that in consequence good grading results were obtained, while in 1947 ingoing values were strongly

affected by the abnormal weather conditions in the spring and outgoing values were affected both by the weather and by price changes.

TABLE 15.

AVERAGE INGOING AND OUTGOING VALUES PER CWT.

	1946	1947
Number of stores	1,195	617
Ingoing value per cwt.	78s. 0d.	87s. 6d.
Outgoing value per cwt.	79s. 9d.	89s. 0d.

Types of Cattle and Grading Results.

(a) 1946. In 1946 over four fifths of the cattle were steers. Out of a total of 1,348 animals only 135 were heifers and 61 were drape cows. Nearly a third of all cattle were Irish and of these only seven were cows or heifers.

TABLE 16.

CLASSIFICATION OF THE CATTLE IN 1946

Class	Steers	Heifers	Others	Total
Numbers :				
Homebred	728	132	57	917
Irish	424	3	4	431
Total	1,152	135	61	1,348
Percentages :				
Homebred	54	9¾	4¼	68
Irish	31½	¼	¼	32
Total	85½	10	4½	100

Out of the total of 1,348 beast no less than 1,154 (nearly 86 per cent) were graded. Casualties and deaths were low at 10 and six respectively, and 178, or 13 per cent, were sold as stores during the summer or taken into yards in the autumn. Table 17 gives an analysis of these results.

The grading results in 1946 can be regarded as very good. There were 76 per cent of the cattle in the top four grades and 10 per cent were placed in lower grades. Deaths and casualties accounted for one per cent and only 13 per cent were not sold for slaughter by the end of the grazing season.

TABLE 17.

GRADING ANALYSIS IN 1946.

Grade	Numbers			Percentage.
	Steers and Heifers	Others	Total	
SS	35	—	35	3
S	348	16	364	27
A +	376	4	380	28
A	226	16	242	18
A −	80	14	94	7
B +	20	2	22	2
B	12	1	13	1
B −	2	2	4	—
C +	—	—	—	—
Total graded	1,099	55	1,154	86
Casualties	10	—	10)	1
Deaths	6	—	6)	
Stores	172	6	178	13
Total not graded	188	6	194	14
Grand total	1,287	61	1,348	100

(b) 1947. In 1947 the majority of the cattle were again steers. The proportion of heifers was down to only 2½ per cent of the total while the proportion of the other cattle rose slightly to 7½ per cent. The proportion of Irish cattle was higher at 35 per cent and all were steers.

TABLE 18.

CLASSIFICATION OF CATTLE IN 1947.

Class	Steers	Heifers	Others	Total
Numbers :				
Homebred	414	20	55	489
Irish	269	—	—	269
Total	683	20	55	758
Percentages :				
Homebred	54½	2½	7½	64½
Irish	35½	—	—	35½
Total	90	2½	7½	100

Fattening results were not so good in 1947. Just under 60 per cent of all cattle were sold fat for slaughter, deaths and casualties accounted for under two per cent and the remaining 38 per cent

remained as stores. Nor were grading results up to the level of

TABLE 19.

GRADING ANALYSIS IN 1947.

Grade	Numbers			Percentage
	Steers and heifers	Others	Total	
SS	18	—	18	2
S	127	7	134	18
A +	117	—	117	15
A	77	3	80	11
A −	48	5	53	7
B +	13	1	14	2
B	11	1	12	2
B −	9	—	9	1
C	1	—	1	—
Not known	—	15	15	2
Total graded	421	32	453	60
Casualties	10	—	10)	2
Deaths	2	—	2)	
Stores	270	23	293	38
Total not graded	282	23	305	40
Grand total	703	55	758	100

1946. There was a small increase in the number of cattle in the Super-Special grade but the general tendency, as shown in table 20, was for the grading to be lower.

TABLE 20.

COMPARISON OF GRADING RESULTS IN 1946 AND 1947.

Grade		Percentage of cattle in each grade.	
Symbol	Killing-out Percentage	1946	1947
	%		
SS	59 or over	3	4
S	58	32	31
A +	57	33	27
A	56	21	18
A −	55	8	12
B +	54	2	3
B	53	1	3
B −	52	—	2
C +	51	—	—
C	50	—	—
		100	100

Prices, Margins and Returns.

There was considerable variation in the initial values placed on the cattle both in 1946 and 1947. All the cattle in both years were either on the farm or purchased early in the season to graze the first flush of grass, and these cattle were followed through to the end of the grazing season, or until they were sold. The intention in all cases was to fatten the majority of the cattle before the winter and values were determind by the type and class of animal. Homebred steers and heifers were valued highest, followed by Irish cattle, and drape cows were lowest. Generally steers were valued above heifers of the same class. Apart from these differences there was a considerable range in values according to the type of animal, that is to say, depending largely on size. Some steers valued as low as £25 in 1946 were fattened during the summer while others were valued in as high as £50 per head. Generally, the bunches of cattle in the highest groups showed the lowest proportion of stores left at the end of the summer. For example, in 1946 there were 197 cattle valued at £45 per head or above. By the end of the grazing season 184 had been sold and the remaining 13 were estimated to weigh on average 12cwts. each. However, there is no evidence that either the lower or the more highly valued cattle were more profitable than the rest. In both years there is a wide scatter of opening values and the outgoing values which is quite independent of the level of profitableness.

TABLE 21.

NUMBERS OF BUNCHES OF CATTLE IN DIFFERENT VALUE RANGES IN 1946 AND 1947.

	Range of values							
	Up to £30	£ 35-30	£ 40-35	£ 45-40	£ 50-45	£ 55-50	£ 60-55	Over £60
1946 :								
Opening values	7	11	14	15	7	1	—	—
Closing values	2	2	4	14	16	10	5	2
1947 :								
Opening values	3	5	3	8	7	3	1	—
Closing values	1	1	4	1	7	7	4	5

There is, however, a relationship between profitableness and the opening value per cwt. In 1946 there were 27 bunches of homebred steers costed of which five bunches averaged under 78s. 0d. per cwt., 18 averaged between 78s. 0d. and 84s. 0d. and four averaged over 84s. 0d. per cwt.

TABLE 22.

RANGE IN OPENING VALUES PER CWT.

ESTIMATED LIVEWEIGHT IN 1946

	Average Opening Value per cwt		
	62s. 0d. to 78s. 0d.	78s. 0d. to 84s. 0d.	84s. 0d. to 94s. 0d.
Number of bunches	5	18	4

The five low value bunches were all sold or valued out at a price per cwt. more than 2s. 0d. above the opening value and four of these bunches showed a profit which was above average. The 18 bunches of medium ingoing values showed a fairly even distribution of profits about the mean. Of these, 13 bunches were sold at prices within 2s. 0d. per cwt. of the opening values and the remaining five were sold at more than 2s. 0d. per cwt. above the opening values. Each of these latter made a profit which was above average. On the other hand the four bunches with high ingoing values returned profits which were below average and three of them were sold at prices more than 2s. 0d. per cwt. less than their respective opening values.

There were in addition 12 bunches of Irish steers in 1946 and these showed great variation in the opening values and not nearly such a marked relationship between opening value, change in value per cwt., and profitableness. Four bunches sold at prices within 2s. 0d. per cwt. of their opening values, four at a price at least 2s. 0d. greater, and four at a price at least 2s. 0d. less. On the whole it was the stores with the lowest ingoing values that made least profit in this case but there was no correlation between changes in value per cwt. and profitableness.

The number of bunches of heifers or drape cows were not sufficient for analysis in either year and in 1947 the price changes which occurred make a similar analysis for the steers of little value.

Margins between the ingoing and outgoing values showed a wide range, depending on the opening value per cwt., the weight increase and the grading of the cattle. By grouping the different bunches of cattle according to the profit per head it is possible to show a close relationship between margins and profits.

TABLE 23.

MARGINS AND PROFITABLENESS OF THE CATTLE IN 1946 AND 1947.

Margin per Head	Number of Bunches of Cattle.					
	1946			1947		
	Least profitable	Medium	Most profitable	Least profitable	Medium	Most profitable
Nil to £6.	12	—	—	10	—	—
£6 to £10	8	19	3	1	6	—
Over £10	1	1	11	2	—	11

This close relationship between feeders' margins and profits of grass fed cattle is directly related to the increase in liveweight, relative to the cost of grazings. Unfortunately the available data on weight increase is less complete than that for value increase, particularly in 1947 in which year a considerable proportion of the cattle had not been finished and sold for slaughter by the end of the grazing season. Table 24 has been constructed for those cases where full information is available.

TABLE 24.

WEIGHT INCREASE AND PROFITABLENESS OF CATTLE.

Average weight increase per head	Number of Bunches of Cattle.					
	1946			1947		
	Least profitable	Medium	Most profitable	Least profitable	Medium	Most profitable
Cwts.						
0.0—1.0	6	—	1	2	—	—
1.0—1.6	7	6	3	5	3	2
1.6—2.2	4	9	3	3	1	8
Over 2.2	3	1	7	—	—	1

Returns and Profits in 1946.

The financial results in 1946 can only be regarded as moderate. There was a gross profit of nearly £11,000 on the 1,348 stores included in the sample representing about £8 per head. After charging the direct expenses of grazing, labour, supplementary foods and sundries the net profit was £5,745, or about £4 5s. 0d. per head. But in arriving at this figure no charges for overhead costs, management expenses or interest on capital have been allowed.

The results for the individual groups of cattle show that only a minority of feeders had good reason to be satisfied with their results. In Tables 27 to 32 all the statements have been calculated on a comparable basis. The individual cases have been arranged in order of profitableness and divided into three sections. Section (a) includes all groups showing a profit of less than £3 per beast, Section (b) includes those with from £3 to £6 profit and Section (c) those with a profit of £6 and over. Only the cattle in Section (c) can be regarded as returning a reasonable profit and this section comprises only 14 out of the 55 bunches. There were 20 bunches of cattle showing profits of between £3 and £6 per head and 21 showing profits of less than £3 per head.

Returns and Profits in 1947.

The financial results for 1947 were similar to those of the previous year, 758 stores showing a gross profit of nearly £8 per head as in 1946. After charging the direct costs the net profit was just over £3 per head. This is only about 70 per cent of the average profit returned in 1946. The reduced profit is accounted for largely by the increased cost of grazing, of labour and of supplementary feeding, which resulted from the drought. Prices of stores in the spring were considerably higher than in 1946 following the severe winter but the average prices received for the fat cattle were also considerably above those received in the previous year so that the margin remained the same. A further factor which should be noted is the high proportion of animals unfinished at the end of the grazing period. Many farmers had their plans upset and their cash resources depleted as a consequence of failure to sell the cattle fat as had been intended. These difficulties must be reckoned as a debit item in assessing the results of the enterprise. Plans had to be altered as the season progressed and much time and worry were involved in planning the use of available resources so as to avoid the worst consequences of the drought, particularly as the drought continued and the prospects of a good harvest declined. Obviously it is difficult to put a cash value on this item. Normally livestock enterprises involve considerable planning but it can be safely said that in 1947 the managerial time occupied in attempting to make the best of a very difficult season was well above normal.

The information for 1947 shows no relationship between rents, costs of grazing and profitableness, although there is evidence that some of the rents paid are too high in relation to the output of beef secured. The more costly grazing certainly produces cattle with a better "finish" as shown in the grading results but the higher

TABLE 25.

GRASS FED CATTLE IN 1946.

	£		No.	£
Value of 1,348 ingoing stores	51,372	Fat cattle sold	1,156	54,564
		Casualties	10	444
		Deaths	6	4
Gross profit	10,795	Stores sold or valued out	176	7,155
	£62,167			£62,167
Cost of grazing	3,976	Gross profit		10,795
Labour	524			
Supplementary foods	334			
Sundry expenses	216			
Net profit	5,745			
	£10,795			£10,795

TABLE 26

GRASS FED CATTLE IN 1947.

	£		No.	£
Value of 758 ingoing stores	31,805	Fat cattle sold	453	24,882
		Casualties	10	323
		Deaths	2	4
Gross profit	6,024	Stores sold or valued out	293	12,620
	£37,829			£37,829
Cost of grazing	2,856	Gross profit		6,024
Labour	416			
Supplementary foods	345			
Sundry expenses	122			
Net profit	2,285			
	£6,024			£6,024

price received does not, on average, compensate for the greater costs incurred. Nor is there any correspondence, in either year, between profitableness and supplementary feeding. The main factor determining profit, in both years was the ability of the individual farmer to select cattle which would fatten easily and quickly. The demand for stores has in recent years been sufficiently strong to keep the price per cwt. very near to the corresponding fat price and unless a reasonable increase in weight is achieved as well as a good "finish" there is not likely to be much profit at the end of the grazing season.

TABLE 27.

COSTS AND RETURNS PER 10 BEASTS IN 1946

SECTION (a) Cases in which the gross profit was below £3 per head

Farm No.	Ingoing value	Ingoing weight	Grazing costs	Labour costs	Supplementary foods	Sundries	Total costs	Returns	Gross balance		Weight increase	Average grazing period
									Surplus	Deficit		
	£	cwts.	£	£	£	£	£	£	£	£	cwts.	days
19	466	111½	21	3	21	2	513	500	—	13	9½	131
37	400	100	13	4	—	1	418	412	—	6	1¼	60
32E	345	80	10	5	17	10	387	387	—	—	12½	126
20A	390	95	40	5	5	5	445	446	1	—	10¾	159
32A	450	110	17	4	33	3	507	510	3	—	21	125
34A	394	98¾	11	3	2	3	413	418	5	—	¼	68
34C	401	95	21	7	—	2	431	439	8	—	16	91
33	410	106	34	4	—	—	448	460	12	—	17¼	122
31B	424	116½	38	6	4	—	472	485	13	—	11¼	204
36A	470	105	29	—	—	1	500	515	15	—	15¼	147
9	370	80	26	6	20	2	424	441	17	—	29¾	154
28	291	82½	29	8	—	1	329	350	21	—	6	126
31A	450	125	23	7	2	1	483	504	21	—	6½	173
24	400	100	35	7	52	3	497	518	21	—	29¾	156
23	222	*	29	7	—	3	261	286	25	—	*	139
13	440	110	17	1	—	—	458	484	26	—	12½	82
41	390	100	40	3	—	1	434	460	26	—	16	172
32B	450	113	8	3	20	3	484	511	27	—	17	87
32D	340	95	15	5	32	3	395	422	27	—	5	152
30A	385	95	46	5	—	3	439	467	28	—	30¾	203
34B	320	92½	48	6	—	3	377	406	29	—	17	183
Average.	391	(100½)	26	5	10	2	434	449	15	—	(14¼)	136

* Figures not recorded.

TABLE 28.

COSTS AND RETURNS PER 10 BEASTS IN 1946.

SECTION (b) Cases in which gross profit was between £3 and £6 per head.

Farm No.	Ingoing value	Ingoing weight	Grazing costs	Labour costs	Supplementary foods	Sundries	Total costs	Returns	Gross balance		Weight increase	Average grazing period
									Surplus	Deficit		
	£	cwts.	£	£	£	£	£	£	£	£	cwts.	days
36B	422	103¾	30	—	—	1	453	483	30	—	14	159
14	499	122	42	2	—	—	543	573	30	—	14	111
44	450	110	42	3	—	1	496	528	32	—	13¾	108
46	237	98½	67	9	—	4	317	353	36	—	12	107
27A	400	100	23	—	1	1	425	464	39	—	13¾	144
7	410	102½	22	5	23	3	464	502	39	—	16½	91
17	400	100	42	2	—	2	446	490	44	—	20¼	95
31C	330	*	33	11	5	—	379	424	45	—	*	214
12	370	92½	38	4	—	1	413	460	47	—	19½	153
1	333	91¼	23	4	—	1	361	409	48	—	20¾	129
39A	340	85	19	3	—	1	363	413	50	—	19	128
25	400	100	21	6	—	3	430	480	50	—	19	114
15	500	115	26	8	—	2	536	587	51	—	26¼	122
6	349	*	31	3	—	2	385	437	52	—	*	134
4	230	65	25	11	4	2	272	326	54	—	17¾	160
45	500	120	17	3	—	1	521	577	56	—	15½	97
35	416	96¾	21	7	—	1	445	501	56	—	19¾	114
30D	380	90	17	3	—	2	402	460	58	—	17½	98
39C	199	*	23	2	—	1	225	284	59	—	*	151
42	391	97¾	24	4	—	3	422	481	59	—	*	112
Average	378	(99½)	29	5	1	2	415	462	47	—	(17½)	127

* Figures not recorded.

TABLE 29.

COSTS AND RETURNS PER 10 BEASTS IN 1946

SECTION (c). Cases in which gross profit exceeds £6 per head.

Farm No.	Ingoing value	Ingoing weight	Grazing costs	Labour costs	Supplementary foods	Sundries	Total costs	Returns	Gross balance		Weight increase	Average grazing period
									Surplus	Deficit		
	£	cwts.	£	£	£	£	£	£	£	£	cwts.	days
38	410	105¼	13	2	3	—	428	488	60	—	19½	102
30E	510	125	33	4	—	2	549	611	62	—	21½	139
26	380	92¾	22	4	—	2	408	471	63	—	23	131
30C	420	100	34	4	—	3	461	524	63	—	34½	144
32F	297	81	19	4	—	2	322	388	66	—	12½	208
18B	480	120	36	3	—	1	520	586	66	—	21¾	145
20C	265	85	35	7	—	—	307	375	68	—	9¾	179
5	426	106½	44	6	—	2	478	547	69	—	24½	117
18A	500	130	28	3	—	1	532	617	85	—	13¼	91
32C	303	84¾	19	5	15	3	345	435	90	—	24½	137
20B	305	96¾	35	6	1	1	348	443	95	—	14¼	178
3A	329	95½	35	4	—	2	370	475	105	—	23½	169
30B	443	105	31	4	—	2	480	589	109	—	38¼	160
39B	310	77¾	21	4	—	1	336	448	112	—	27½	145
Average	384	100½	29	4	1	2	420	500	80	—	22	146

TABLE 30.

COSTS AND RETURNS PER 10 BEASTS IN 1947

SECTION (a) Cases in which the gross profit was below £3 per head.

Farm No.	Ingoing value	Ingoing weight	Grazing costs	Labour costs	Supplementary foods	Sundries	Total costs	Returns	Gross balance		Weight increase	Average grazing period
									Surplus	Deficit		
	£	cwts.	£	£	£	£	£	£	£	£	cwts.	days
37	500	97½	65	8	24	3	600	478	—	122	6	147
32G	500	90	20	10	40	4	574	468	—	106	12½	97
14	552	123¼	54	2	—	1	609	577	—	32	4½	127
32H	510	103¾	29	4	20	4	567	551	—	16	16½	125
31C	335	80½	30	20	7	1	393	382	—	11	11	202
46	280	*	73	6	—	6	365	366	1	—	*	*
1	344	81	32	6	—	1	383	387	4	—	15¾	149
12	520	105	37	6	—	—	563	574	11	—	20½	104
16	225	90	20	14	—	—	259	278	19	—	*	146
39D	461	100	19	3	—	—	483	507	24	—	*	79
24	491	110	36	17	35	4	583	607	24	—	19½	109
44	311	90	26	2	—	2	341	366	25	—	11	68
40	490	115	93	4	14	2	603	628	25	—	15	143
Average	424	(99)	41	8	11	2	486	474	—	12	(12¼)	125

* Figures not recorded.

TABLE 31.

COSTS AND RETURNS PER 10 BEASTS IN 1947.

SECTION (b) Cases in which the gross profit was between £3 and £6 per head.

Farm No.	Ingoing value	Ingoing weight	Grazing costs	Labour costs	Supplementary foods	Sundries	Total costs	Returns	Gross balance		Weight increase	Average grazing period
									Surplus	Deficit		
	£	cwts.	£	£	£	£	£	£	£	£	cwts.	days
26	440	100	39	4	—	—	483	516	33	—	14½	113
6	383	*	40	4	—	2	429	466	37	—	*	113
27B	404	92	31	1	—	1	437	474	37	—	10¼	135
36B	420	90	34	3	—	—	457	500	43	—	20	193
31B	423	99	44	8	4	—	479	523	44	—	13¾	182
39A	314	70	21	12	1	—	349	409	60	—	*	167
Average	397	(90)	35	5	1	1	439	481	42	—	(14½)	150

* Figures not recorded.

TABLE 32.

COSTS AND RETURNS PER 10 BEASTS IN 1947.

SECTION (c) Cases in which the gross profit exceeds £6 per head.

Farm No.	Ingoing value	Ingoing weight	Grazing costs	Labour costs	Supplementary foods	Sundries	Total costs	Returns	Gross balance		Weight increase	Average grazing period
									Surplus	Deficit		
	£	cwts.	£	£	£	£	£	£	£	£	cwts.	days
30AB												
CE	430	105	33	4	—	3	470	531	61	—	16¾	129
25	420	105	37	11	—	2	470	537	67	—	10½	134
39BC	360	87½	33	6	3	2	404	475	71	—	19½	118
4	380	92½	34	10	18	2	444	516	72	—	19½	132
36A	428	94	32	3	—	—	463	536	73	—	20¼	90
9	350	78	32	7	26	1	416	490	74	—	22	147
30D	200	90	26	3	—	3	232	308	76	—	17½	112
18A	520	125	34	5	—	1	560	638	78	—	15¼	95
31A	469	107	33	13	3	—	518	604	86	—	17¾	169
45	445	97¼	30	4	2	1	482	572	90	—	30¾	135
18B	500	120	25	4	—	1	530	631	101	—	19¼	95
Average	409	100	32	6	5	2	454	531	77	—	19	123

CHAPTER 6.

BEEF PRODUCTION PROSPECTS.

At the present time grass is cheap and feeding stuffs are scarce and expensive. Under these conditions the greater part of our beef output is likely to come from grass feeding. Arable farmers who keep store cattle in yards during the winter for the production of farmyard manure are unlikely to make any special efforts to produce prime fat animals unless the prices of concentrates are reduced or unless the relation between the prices of stores and the prices of fat cattle in the spring change in such a way as to provide them with a strong incentive to fatten their stock. The prices of concentrates in Britain are closely related to world prices but are also affected by the dollar shortage. The only considerable stocks of animal feeding stuffs are in America where prices are already falling. Most of the rest of the world is still suffering from a shortage and is fairly effectively insulated from price changes in the U.S.A. by the shortage of dollars which makes it impossible for them to buy American stocks on any large scale. In addition the price support policy of the U.S. government has kept prices within the U.S.A. at a higher level than could have been maintained without support.

It is notoriously difficult to forecast future trends when they are so dependent on political factors. It must be remembered that the U.S.A. has already granted extensive loans and that these have been followed by further aid under the European Recovery Programme. During the first half of 1949 unmistakable signs of approaching slump have appeared in the U.S.A. and it seems unlikely that, under slump conditions, and with large scale unemployment at home, the U.S. government will be able to make any further loans either to Britain or to other European countries which would enable the latter to purchase feeding stuffs on any large scale. The prospects of obtaining increased supplies from non-dollar sources in the next few years are not bright either, and are also complicated by political problems. It can be said, however, with reasonable certainty, that cheap concentrates will not be available to British farmers for some years to come, and that therefore the production of beef will have to depend very largely, if not entirely, on home produced foods.

Within the framework of the British farm economy there are many conflicting claims on the use of land and the use to which its products are put. The Minister of Agriculture has, however, given the guiding lines of future policy and effect is being given to this

policy through the guaranteed prices which are offered for the main farm products. The main aim is increased production with special emphasis on livestock and livestock products. Within this programme dairy cattle may be in direct competition with beef cattle both for grassland and for feeding stuffs. In practice some division is made according to the type of farm and the quality of the grassland but there can be no doubt that one of the factors limiting the expansion of the beef output is the great demand made on both grassland and arable land by dairy herds and their followers. This situation provides an interesting example of the difficulties which lie in the way of control of farm production through price fixing policies. It is national policy to continue the expansion of milk production and this will involve not only an increase in the number of cows, but also an increase in the number of replacements being reared. At the same time it is policy to expand the beef herd much more rapidly than the dairy herd and the economic incentives for this increase have to be supplied largely through prices. However, it is always a sound policy to put first things first and one danger to be guarded against is that the higher profits from beef may tempt dairy farmers to switch their programme. It is necessary to safeguard the milk industry at all stages: suitable heifer calves must be reared for replacement and expansion of dairy herds, and feeding stuffs, largely home grown, must be available both for calf rearing and for the maintenance and production rations of the cows. In addition to direct price incentives two subsidiary measures have been taken by the government in order to support their policy of expansion of milk production. The price of milk has been increased and the calf rearing subsidy has been introduced for all calves of reasonable standard which are reared. On the feeding side the control of the arable acreage is an insurance against a reduction in crop production.

The actual increases in prices of fat cattle granted since 1946 provide a powerful incentive for increased production. That granted in 1947 was substantial and has been supplemented by a further increase of 4s. 6d. per cwt. in 1949 and these together represent a sum considerably above what would have been required to meet the rise in costs over the period. As was inevitable the effect of the price increases was an immediate increase in store prices. The reaction of breeders to this increase and to the calf subsidy can be seen in the increased number of calves now being reared. In March 1949 there were 230,000 more cattle under one year old on farms in the United Kingdom than twelve months earlier, an increase of about 12 per cent. These calves, however, are not sufficient to satisfy the

needs of the Agricultural Expansion Programme, and in any case it will be at least a year before these animals can have much effect on the store market, and the full effect will not be seen until 1951. In the spring of 1949 it was evident from the high prices being paid for store cattle, and in particular for forward stores suitable for summer fattening, that demand was greatly in excess of supply. The result was that many feeders either had to buy at prices which are likely to give them a small margin to work on or they had to risk deterioration of their grazing land through undergrazing. Until 1951 we can expect that store prices will remain high and there is likely to be a continued expansion of breeding and rearing for the store market, and probably, too, a diversion of heifers of dual purpose type from dairy herds to beef herds. The increased number of stores which will be available in 1951 will result, if other conditions remain the same, in a relative reduction in store prices compared with fat cattle prices. It is safe to say that until then store rearing will be more profitable than fattening. This does not, of course, mean that no profits can be expected from the fattening of cattle. Some farmers, no doubt, value a fine herd of beef cattle so highly that they are prepared to forego any direct profit, but for the majority there is a limit beyond which they will not go, preferring to modify their farming system rather than lose money on their cattle.

Beginning in 1951 store prices can be expected to come down and feeders' margins to increase. The effect of this on feeders and potential feeders will be to increase their demand. More buyers will appear in the markets as prices become more attractive. The effect on rearers will, of course, be in the opposite direction. As store prices fall the incentive to increase breeding will diminish and finally a new equilibrium will be established.

There can be little doubt that a close watch is being kept on the development of store raising. The position of our meat supply is insecure and difficulties have arisen, and may arise again, in obtaining even limited quantities of Argentine beef. We can, therefore, expect that prices will be adjusted, if this is found necessary, in order to establish the national beef output at the level envisaged in the Agricultural Expansion Programme. Present indications are that upward adjustment may be necessary and there would appear to be little danger, in the absence of major changes in world trade and exchange relationships, of any price reductions.

It is always claimed that livestock industries require stable conditions if maximum output is to be achieved. There is little

reason to doubt that these conditions will prevail during the next few years, and, although feeders may have to wait a year or two before they can expect increased profits the general outlook for both breeders and feeders is undoubtedly good.

CHAPTER 7.

SUMMARY AND CONCLUSIONS.

(1) In 1946, 37 farmers completed records covering the costs of grazing 1,348 store cattle in 55 separate bunches. In 1947, 758 store cattle were recorded in 30 bunches on 22 farms.

(2) In both years about two thirds of the cattle were home-bred and the remainder were Irish. In 1946 85 per cent were steers and in 1947 the percentage was 90.

(3) Costs of fattening averaged £3 15s. 0d. per head in 1946 and £4 18s. 0d. per head in 1947. In each year over 75 per cent of these costs were for grazing, the balance being for labour, hand feeding and minor expenses.

(4) The increase in value averaged £8 per head in both years. The profit per head, before making allowance for overhead costs, was £4 5s. 0d. in 1946 and £3 1s. 0d. in 1947.

(5) The results were considerably affected by the prevailing weather conditions. While in 1946 conditions were good and grass was plentiful, in 1947 the spring growth of grass was delayed by cold weather and during the summer, drought and hot sunshine resulted in bare pastures. In consequence the output of grass was much below the level of the preceding year, and, in spite of the greater acreage grazed per beast in 1947, the average liveweight increase was lower.

(6) In 1946 by the end of the grazing season, 86 per cent of the cattle had been sold for slaughter, while in 1947 the figure was 60 per cent. Grading results were better in 1946 than in 1947.

(7) Cattle of different types and weights were found among the profitable and unprofitable groups of cattle. There was a definite correlation between weight, gross margin and profitableness but no

correlation between either rent or cost of grazing and profit. Generally the cattle which were bought or valued at prices per cwt. below the average showed higher profits, while those bought in at relatively high prices showed profits which were below the average.

(8) Hand feeding was practised in a minority of cases in both years. In the more normal season of 1946 the extra foods went mainly to cattle which were making unsatisfactory progress. These cattle gave profits which were below the average. At the present time when feeding stuffs are in short supply and expensive to buy it is unlikely that supplementary feeding of cattle on grass is an economic proposition. The alternatives are to sell those cattle which are slow to fatten either as stores or for slaughter. In the former case, from the national viewpoint, nothing is gained. The problem is merely passed on to the buyer of the cattle. The latter solution is probably better. The cattle will not grade well but by cutting his losses at this stage the feeder not only saves valuable food but also make room for replacements which can make better use of his grass.

(9) The final results were not very satisfactory. In 1946 21 bunches of cattle showed profits (before charging overhead costs) of up to £3 per head. There were 20 bunches showing profits of from £3 to £6 and only 14 showing profits of over £6 per head. In 1947, in spite of the great increase in prices granted in mid-season, 13 bunches showed profits of not more than £3, six showed profits of between £3 and £6 and 11 bunches had profits of more than £6 per head.

(10) The future prospects of beef production are good. The international food supply position and the economic situation of this country are such that there is no immediate threat of cheap food imports from abroad to undercut the home producer. Perhaps of more serious import is the danger that livestock expansion may be hampered by a shortage of home grown feeding stuffs. Production in 1949 is well below the target set by the government. The effect of this may be to limit store rearing and to prolong the period in which the number of stores available for fattening is below the number required by grass feeders. However, the number of calves being reared at present is much greater than the number reared in the previous years. As a result we can expect a fall in store prices relative to fat prices in 1951 and 1952 which will give greater profits to feeders.

APPENDIX.

Detailed tables of costs and returns.

Table 1 Grazing Costs in 1946 : Costs per acre.

2 Grazing Costs in 1947 : Costs per acre.

3 Total Ingoings 1946.

4 Disposals 1946.

5 Type and Grading Analysis 1946.

6 Grazing Costs 1946.

7 Financial Summary 1946.

8 Total Ingoings 1947.

9 Disposals 1947.

10 Type and Grading Analysis 1947.

11 Grazing Costs 1947.

12 Financial Summary 1947.

TABLE 1.

GRAZING COSTS IN 1946 ON 1,604½ ACRES (SHILLINGS PER ACRE).

Farm No.	Number of acres costed	Rent	Lime & manures (net)	Hedge & ditch mainten-ance	Reseed-ing charges	Culti-vations	Sun-dries	Total	No. of grazing units per acre	Cost per unit
		s.	s.	s.	s.	s.	s.	s.		pence
32E	5	32	—	—	—	4	—	36	215	2
32F	33	30	4	—	—	5½	—	39½	215	2¼
32D	4	30	5	—	—	5	—	40	210	2¼
32B	6	30	7	—	—	3	—	40	201	2½
38	50	30	2	—	—	4½	—	36½	150	3
31A	17	60	6	—	—	9½	—	75½	278	3¼
32A	19	30½	8½	—	—	3	—	42	149	3¼
32C	19	30½	5½	—	—	5	—	41	148	3¼
39A	6	30	7	3	—	10	—	50	168	3½
39C	11	31	—	9	25½	—	—	65½	219	3½
39B	7	31½	11½	5½	25½	8½	—	82½	268	3¾
31C	23	40	—	4½	—	7	—	51½	168	3¾
4	7	34	3	8½	—	11½	—	57	183	3¾
27A	40	40	—	—	—	—	—	40	123	4
30D	11	45½	7	2	—	3½	—	58	177	4
26	26	41	4½	11	9	2	—	67½	205	4
19	61	16½	6½	2	4½	4	—	33½	100	4
34B	9	40	—	9	20	4½	—	73½	219	4
9	10	48	—	4	—	14	—	66	194	4
25	55½	21	8½	5	14	2½	—	51	152	4
45	42	40	—	7	—	1	2	50	142	4¼
1	114	25	20½	16	—	5½	—	67	187	4½
35	23	40	—	8½	—	8	—	56½	155	4½
31B	44	40	6	4½	8	14½	—	73	195	4½
36B	22	40	—	5½	—	7	—	52½	137	4½
30B	10	45	—	1	—	14	—	60	155	4¾
36A	16	50	—	5	—	7½	—	62½	156	4¾
13	23	53	—	5	—	2½	—	60½	148	5
3A	22	50	5½	2½	—	3	—	61	146	5
15	14½	41½	—	12½	—	8	—	62	146	5
18B	22	54½	2	5½	—	5½	—	67½	159	5
6	92	60	11	11	—	—	—	82	175	5¼
30A	16	45	5	2½	16	12½	—	81	188	5¼
24	12	60	—	13	—	3½	—	76½	169	5½
30E	20	45	8	2	—	10	—	65	141	5½
23	31	65	—	1½	—	—	—	66½	143	5½
28	53	20	12	8	8½	2	—	50½	108	5½
34A	15	40	—	1½	20	—	—	61½	130	5¾
20A	19	36	20	7½	7½	4	3	78	164	5¾
30C	30	45	14	3	—	4½	—	66½	140	5¾
42	19	30½	36	8½	—	7	—	82	187	5¾
20C	30	35½	13	7	—	5½	—	61	122	6
12	33	57½	—	9	—	8	—	74½	148	6
34C	24	30	—	7½	20	2½	—	60	114	6¼
44	12	40	26½	12	—	5	—	83½	155	6½
7	8	20	7½	20	17½	2½	—	67½	121	6¾
20B	15	35	6½	8	6½	5½	—	61½	110	6¾
33	19	58	14½	6½	—	4	4½	87½	152	6¾
18A	12½	64	—	1½	—	5	—	70½	114	7½
41	240	46	10	9½	4½	1½	—	71½	114	7½
37	20	33	—	8	—	—	—	41	65	7½
14	36	80	—	11	—	3½	—	94½	126	9
5	38	25	23	10½	17½	10	—	86	113	9¼
17	30	120	5½	4½	—	16	—	146	133	13
46	15	120	—	5½	—	—	—	125½	100	15
Average	29	43	8	7	3½	4½	—	66	148	5¼

TABLE 2

GRAZING COSTS IN 1947 ON 965½ ACRES (SHILLINGS PER ACRE.)

Farm No.	Number of acres costed	Rent	Lime & manures (net)	Hedge & ditch mainten-ance	Reseed-ing charges	Culti-vations	Sund-ries	Total	No. of grazing units per acre	Cost per unit
		s.	s.	s.	s.	s.	s.	s.		pence
39A	6	30	6½	3	—	3½	—	43	180	3
16	10	30	—	10	—	—	—	40	146	3¼
31C	23	40	—	2½	—	2½	—	45	150	3¾
36B	22	40	—	9	—	6½	—	55½	163	4
31A	17	60	—	7	—	3½	2½	73	180	4¾
1	114	30	18	7	6	8	—	69	159	5¼
9	10	48	8	8	—	6	—	70	160	5¼
27B	26	54½	—	—	—	3	—	57½	124	5½
30D	11	45½	—	2	—	9	—	56½	123	5½
32G	3½	28½	—	23	—	11½	—	63	138	5½
32H	128	30	4	2	—	10	1½	47½	104	5½
31B	55	40	4½	2	6½	5	—	58	121	5¾
36A	16	50	—	5	—	5	—	60	124	5¾
30*	70½	45	5½	3	—	7½	—	61	120	6
45	42	40	22	6½	—	—	2	70½	143	6
39D	14	37	11½	3	—	7	—	58½	117	6
18B	22	65	—	14½	—	2½	—	82	128	6½
25	49	20	8½	9½	16	1	—	55	99	6¾
39BC	18	31	10	6½	25½	3½	—	76½	137	6¾
12	33	57½	—	13½	—	2½	—	73½	116	7½
24	12	60	—	18½	—	5	—	83½	130	7¾
26	26	41	15½	14½	9	3	—	83	123	8
44	12	40	15	20	—	3½	—	78½	111	8½
18A	12½	64	—	11	—	2	—	77	106	8¾
6	92	60	18½	11	—	3	—	92½	121	9¼
4	7	34	23	25½	—	6	—	88½	114	9¼
14	36	80	—	15½	—	5	—	100½	118	10¼
37	19	35	—	6	—	—	—	41	46	10¾
46	15	120	—	16	—	9½	—	145½	121	14½
40	44	60	44	10½	—	4	—	118½	91	15½
Average	32	44½	10	7½	2½	5½	—	70	124	6¾

*Entry for Farm 30 covers 4 bunches of cattle, A B C E.

TABLE 3.

TOTAL INGOINGS 1946.

Farm No.	No. of stores	Ingoing value	Ingoing weights	Grazing charges	Labour	Supplementary feeding	Sundries	Total Ingoing
		£	cwts.	£	£	£	£	£
1	141	4696	1286½	322	51	—	13	5082
3A	19	626	181½	66	8	—	3	703
4	8	184	52	20	9	3	2	218
5	38	1620	405	167	21	—	9	1817
6	95	3318	*	291	32	—	22	3663
7	8	328	82	18	4	18	2	370
9	11	407	88	28	7	22	2	466
12	32	1184	296	123	14	—	2	1323
13	21	924	231	36	1	—	1	962
14	32	1596	390¾	134	7	—	1	1738
15	12	600	138	31	10	—	3	644
17	43	1720	430	179	9	—	11	1919
18A	10	500	130	28	3	—	1	532
18B	20	960	240	72	5	—	2	1039
19	30	1398	335	65	9	62	5	1539
20A	10	390	95	40	5	5	5	445
20B	15	458	145	52	9	2	1	522
20C	19	504	161½	66	13	—	—	583
23	29	644	*	85	19	—	10	758
24	11	440	110	39	8	57	3	547
25	22	880	220	46	13	—	6	945
26	20	760	185½	44	8	—	4	816
27A	35	1400	350	80	—	4	3	1487
28	14	408	115½	41	11	—	1	461
30A	16	616	152	74	8	—	4	702
30B	8	354	84	25	3	—	2	384
30C	20	840	200	69	7	—	5	921
30D	12	456	108	20	3	—	3	482
30E	17	867	212½	56	6	—	4	933
31A	18	810	225	42	13	3	2	870
31B	30	1271	349½	115	18	12	1	1417
31C	13	429	*	43	15	6	—	493
32A	18	810	198	30	8	59	6	913
32B	7	315	79	6	2	14	2	339
32C	17	515	144	32	8	26	5	586
32D	4	136	38	6	2	13	1	158
32E	6	207	48	6	3	10	6	232
32F	34	1009	275¾	64	15	—	6	1094
33	19	779	201½	65	7	—	1	852
34A	12	481	114	25	8	—	3	517
34B	13	512	128½	15	4	2	4	537
34C	13	416	120¼	62	8	—	4	490
35	17	707	164½	35	12	—	2	756
36A	15	705	157½	44	—	—	1	750
36B	19	802	197	58	—	—	1	861
37	16	640	160	30	6	—	1	677
38	51	2091	536½	64	11	16	3	2185
39A	7	238	59½	13	2	—	1	254
39B	13	403	101	27	5	—	1	436
39C	16	318	*	36	4	—	2	360
41	158	6169	1580	625	41	—	18	6853
42	22	859	215	53	9	—	6	927
44	12	540	132	50	4	—	1	595
45	16	800	192	28	4	—	2	834
46	14	332	138	94	12	—	6	444

*Not available.

TABLE 4.

DISPOSALS 1946.

Farm No.	Numbers					Weights				Values				
	Fat	Stores	Casualties	Deaths	Total	Fat	Stores	Casualties	Total	Fat	Stores	Casualties	Deaths	Total
						cwts.	cwts.	cwts.	cwts.	£	£	£	£	£
1	115	24	1	1	141	1326	243	10	1579	4933	798	27	—	5758
3A	14	5	—	—	19	166¼	60	—	226¼	647	256	—	—	903
4	5	3	—	—	8	41¼	25	—	66¼	156	105	—	—	261
5	31	6	1	—	38	411	75	12	498	1731	302	45	—	2078
6	94	—	1	—	95	1056¾	—	10½	1067¼	4134	—	21	—	4155
7	8	—	—	—	8	95¼	—	—	95¼	401	—	—	—	401
9	7	4	—	—	11	80¾	40	—	120¾	333	152	—	—	485
12	26	5	1	—	32	303½	47½	7	358	1265	195	14	—	1474
13	21	—	—	—	21	257½	—	—	257½	1016	—	—	—	1016
14	32	—	—	—	32	446	—	—	446	1834	—	—	—	1834
15	12	—	—	—	12	169½	—	—	169½	705	—	—	—	705
17	43	—	—	—	43	516¾	—	—	516¾	2107	—	—	—	2107
18A	10	—	—	—	10	143¼	—	—	143¼	617	—	—	—	617
18B	20	—	—	—	20	282½	—	—	282½	1171	—	—	—	1171
19	24	5	1	—	30	290¾	60	13	363¾	1233	225	43	—	1501
20A	10	—	—	—	10	105¾	—	—	105¾	446	—	—	—	446
20B	5	10	—	—	15	56½	110	—	166½	229	435	—	—	664
20C	—	18	—	1	19	—	180	—	180	—	713	—	—	713
23	28	1	—	—	29	270	10	—	280	814	15	—	—	829
24	10	—	1	—	11	131¾	—	11	142¾	540	—	30	—	570
25	21	—	1	—	22	250½	—	11	261½	1034	—	22	—	1056
26	16	4	—	—	20	189¼	42	—	231¼	792	—	150	—	942
27A	35	—	—	—	35	398	—	—	398	1623	—	—	—	1623
28	14	—	—	—	14	124	—	—	124	490	—	—	—	490
30A	16	—	—	—	16	201¼	—	—	201¼	747	—	—	—	747
30B	8	—	—	—	8	114½	—	—	114½	471	—	—	—	471
30C	20	—	—	—	20	268¾	—	—	268¾	1048	—	—	—	1048
30D	12	—	—	—	12	129	—	—	129	552	—	—	—	552
30E	17	—	—	—	17	249	—	—	249	1038	—	—	—	1038
31A	18	—	—	—	18	236½	—	—	236½	907	—	—	—	907
31B	29	1	—	—	30	370½	12½	—	383	1409	48	—	—	1457
31C	11	2	—	—	13	123	17	—	140	487	64	—	—	551
32A	18	—	—	—	18	236	—	—	236	919	—	—	—	919
32B	7	—	—	—	7	91	—	—	91	358	—	—	—	358
32C	17	—	—	—	17	183¾	—	—	183¾	740	—	—	—	740
32D	4	—	—	—	4	40	—	—	40	169	—	—	—	169
32E	6	—	—	—	6	55½	—	—	55½	232	—	—	—	232
32F	31	2	—	1	34	298¼	20	—	318¼	1245	71	—	1	1317
33	18	—	1	—	19	224¼	—	10¼	234½	837	—	38	—	875
34A	11	—	1	—	12	124¼	—	10	134¼	490	—	36	—	526
34B	12	—	—	1	13	128¼	—	—	128¼	542	—	—	2	544
34C	13	—	—	—	13	142¼	—	—	142¼	528	—	—	—	528
35	17	—	—	—	17	198	—	—	198	851	—	—	—	851
36A	7	8	—	—	15	84½	96	—	180½	348	424	—	—	772
36B	3	16	—	—	19	33¾	190	—	223¾	140	778	—	—	918
37	14	—	1	1	16	153	—	9	162	640	—	18	1	659
38	51	—	—	—	51	635½	—	—	635½	2491	—	—	—	2491
39A	4	3	—	—	7	44¼	28½	—	72¾	184	105	—	—	289
39B	4	9	—	—	13	42¼	94½	—	136¾	179	403	—	—	582
39C	11	5	—	—	16	112½	42½	—	155	338	117	—	—	455
41	114	43	—	1	158	1380¾	451½	—	1832¼	5375	1889	—	—	7264
42	20	2	—	—	22	235	16	—	251	998	60	—	—	1058
44	12	—	—	—	12	148½	—	—	148½	633	—	—	—	633
45	16	—	—	—	16	216¾	—	—	216¾	923	—	—	—	923
46	14	—	—	—	14	154¾	—	—	154¾	494	—	—	—	494

TABLE 5.

TYPE AND GRADING ANALYSIS 1946.

Farm No.	Steers	Heifers	Others	Total	Homebred	Irish	Total	SS	S	A+	A	A-	B+	B	B-	C+	Casualties	Deaths	Stores	Total
1	141	—	—	141	16	125	141	—	13	19	44	20	12	5	—	—	1	1	26	141
3A	19	—	—	19	19	—	19	—	—	5	3	6	—	—	—	—	—	—	5	19
4	4	4	—	8	8	—	8	—	—	—	—	2	—	2	1	—	—	—	3	8
5	38	—	—	38	38	—	38	—	20	11	—	—	—	—	—	—	1	—	6	38
6	92	—	3	95	95	—	95	—	2	45	1c 31	2c 13	—	—	—	—	1	—	—	95
7	8	—	—	8	—	8	8	—	1	2	4	1	—	—	—	—	—	—	—	8
9	11	—	—	11	11	—	11	—	—	2	4	1	—	—	—	—	—	—	4	11
12	32	—	—	32	32	—	32	2	8	14	2	—	—	—	—	—	1	—	5	32
13	21	—	—	21	—	21	21	—	7	11	2	1	—	—	—	—	—	—	—	21
14	32	—	—	32	32	—	32	—	22	6	4	—	—	—	—	—	—	—	—	32
15	12	—	—	12	12	—	12	—	8	2	1	—	1	—	—	—	—	—	—	12
17	43	—	—	43	43	—	43	1	9	9	13	7	2	2	—	—	—	—	—	43
18A	10	—	—	10	10	—	10	1	9	—	—	—	—	—	—	—	—	—	—	10
18B	20	—	—	20	20	—	20	—	19	1	—	—	—	—	—	—	—	—	—	20
19	30	—	—	30	30	—	30	—	8	11	4	1	—	—	—	—	1	—	5	30
20A	10	—	—	10	10	—	10	4	6	—	—	—	—	—	—	—	—	—	—	10
20B	15	—	—	15	15	—	15	—	1	4	—	—	—	—	—	—	—	—	10	15
20C	19	—	—	19	19	—	19	—	—	—	—	—	—	—	—	—	—	1	18	19
23	—	—	29	29	28	1	29	—	7c	1c	9c	8c	1c	—	2c	—	—	—	1c	29
24	11	—	—	11	11	—	11	—	7	2	—	—	—	—	1	—	1	—	—	11
25	22	—	—	22	22	—	22	—	2	6	8	4	1	—	—	—	1	—	—	22
26	20	—	—	20	20	—	20	—	2	8	5	1	—	—	—	—	—	—	4	20
27A	35	—	—	35	35	—	35	—	5	13	10	5	—	2	—	—	—	—	—	35
28	14	—	—	14	—	14	14	1	8	2	1	1	1	—	—	—	—	—	—	14
30A	16	—	—	16	—	16	16	2	13	1	—	—	—	—	—	—	—	—	—	16
30B	8	—	—	8	6	2	8	—	7	1	—	—	—	—	—	—	—	—	—	8
30C	20	—	—	20	—	20	20	3	17	—	—	—	—	—	—	—	—	—	—	20
30D	—	12	—	12	12	—	12	1	7	2	1	1	—	—	—	—	—	—	—	12
30E	17	—	—	17	17	—	17	—	16	—	1	—	—	—	—	—	—	—	—	17
31A	18	—	—	18	—	18	18	—	12	4	2	—	—	—	—	—	—	—	—	18
31B	30	—	—	30	—	30	30	—	5	14	9	1	—	—	—	—	—	—	1	30
31C	—	12	1	13	10	3	13	—	1c 1	6	2	1	—	—	—	—	—	—	2	13
32A	18	—	—	18	—	18	18	—	9	7	2	—	—	—	—	—	—	—	—	18
32B	7	—	—	7	—	7	7	—	1	6	—	—	—	—	—	—	—	—	—	7
32C	—	17	—	17	17	—	17	—	3	9	5	—	—	—	—	—	—	—	—	17
32D	—	4	—	4	4	—	4	—	1	3	—	—	—	—	—	—	—	—	—	4
32E	—	6	—	6	6	—	6	—	—	5	1	—	—	—	—	—	—	—	—	6
32F	—	34	—	34	34	—	34	—	6	17	7	1	—	—	—	—	—	1	2	34
33	19	—	—	19	—	19	19	—	5	11	1	—	—	1	—	—	1	—	—	19
34A	12	—	—	12	12	—	12	—	3	7	1	—	—	—	—	—	1	—	—	12
34B	13	—	—	13	13	—	13	—	—	1	5	4	2	—	—	—	—	1	—	13
34C	13	—	—	13	—	13	13	—	—	8	5	—	—	—	—	—	—	—	—	13
35	17	—	—	17	17	—	17	6	9	2	—	—	—	—	—	—	—	—	—	17
36A	15	—	—	15	15	—	15	—	—	1	4	1	1	—	—	—	—	—	8	15
36B	19	—	—	19	19	—	19	—	—	1	2	—	—	—	—	—	—	—	16	19
37	10	6	—	16	14	2	16	5	8	1	—	—	—	—	—	—	1	1	—	16
38	51	—	—	51	—	51	51	3	20	26	2	—	—	—	—	—	—	—	—	51
39A	7	—	—	7	7	—	7	—	—	2	2	—	—	—	—	—	—	—	3	7
39B	13	—	—	13	13	—	13	—	—	3	1	—	—	—	—	—	—	—	9	13
39C	—	—	16	16	13	3	16	—	3c	2c	4c	2c	—	—	—	—	—	—	5c	16
41	133	25	—	158	98	60	158	6	26	44	31	7	—	—	—	—	—	1	43	158
42	9	13	—	22	22	—	22	—	10	7	3	—	—	—	—	—	—	—	2	22
44	12	—	—	12	12	—	12	—	1	9	2	—	—	—	—	—	—	—	—	12
45	16	—	—	16	16	—	16	—	11	4	1	—	—	—	—	—	—	—	—	16
46	—	2	12	14	14	—	14	—	5c	1c 1	2c	2c 1	1c	1c	—	—	—	—	—	14

c=cows.—

TABLE 6.

GRAZING COSTS 1946.

Farm No.	No. of acres	Rent	Lime & manures (net)	Hedge & ditch mainten-ance	Charge for reseed-ing	Culti-vations	Sundries	Total	No. of units	Cost per unit
		£	£	£	£	£	£	£		pence
1	114	143	116	91	—	32	—	382	21342	4¼
3A	22	55	6	3	—	3	—	67	3220	5
4	7	12	1	3	—	4	—	20	1282	4
5	38	48	43	20	33	19	—	163	4285	9
6	92	276	52	50	—	—	—	378	16062	5½
7	8	8	3	8	7	1	—	27	971	6½
9	10	24	—	2	—	7	—	33	1942	4
12	33	95	—	15	—	13	—	123	4885	6
13	23	61	—	6	—	3	—	70	3402	5
14	36	144	—	20	—	6	—	170	4546	9
15	14½	30	—	9	—	6	—	45	2116	5
17	30	180	8	7	—	24	—	219	4000	13¼
18A	12½	40	—	1	—	3	—	44	1420	7½
18B	22	60	2	6	—	6	—	74	3466	5
19	61	50	20	7	13	12	—	102	6109	4
20A	19	34	19	7	7	4	3	74	3124	5½
20B	15	26	5	6	5	4	—	46	1645	6¾
20C	30	53	20	10	—	8	—	91	3655	6
23	31	101	—	2	—	—	—	103	4444	5½
24	12	36	—	8	—	2	—	46	2022	5½
25	55½	58	24	14	39	7	—	142	8425	4
26	26	53	6	14	12	3	—	88	5344	4
27A	40	80	—	—	—	—	—	80	4932	4
28	53	53	32	21	23	5	—	134	5740	5½
30A	16	36	4	2	13	10	—	65	3014	5¼
30B	10	23	—	—	—	7	—	30	1551	4¾
30C	30	68	21	4	—	7	—	100	4192	5¾
30D	11	25	4	1	—	2	—	32	1950	4
30E	20	45	8	2	—	10	—	65	2820	5½
31A	17	51	—	5	—	8	—	64	4728	3¼
31B	44	88	13	10	18	32	—	161	8574	4½
31C	23	46	—	5	—	8	—	59	3856	3¾
32A	19	29	8	—	—	3	—	40	2839	3¼
32B	6	9	2	—	—	1	—	12	1204	2½
32C	19	29	5	—	—	5	—	39	2818	3¼
32D	4	6	1	—	—	1	—	8	840	2¼
32E	5	8	—	—	—	1	—	9	1074	2
32F	33	50	6	—	—	9	—	65	7088	2¼
33	19	55	14	6	—	4	4	83	2895	6¾
34A	15	30	—	1	15	—	—	46	1955	5½
34B	9	18	—	4	9	2	—	33	1970	4
34C	24	36	—	9	24	3	—	72	2725	6¼
35	23	46	—	10	—	9	—	65	3555	4¼
36A	16	40	—	4	—	6	—	50	2498	4¾
36B	22	44	—	6	—	8	—	58	3018	4½
37	20	33	—	8	—	—	—	41	1290	7½
38	50	75	—	5	—	11	—	91	7510	3
39A	6	9	2	1	—	3	—	15	1078	3½
39B	7	11	4	2	9	3	—	29	1879	3½
39C	11	17	—	5	14	—	—	36	2409	3½
41	240	552	118	116	56	15	—	857	27274	7½
42	19	29	34	8	—	7	—	78	3562	5¾
44	12	24	16	7	—	3	—	50	1857	6½
45	42	84	—	15	—	2	4	105	5963	4¼
46	15	90	—	4	—	—	—	94	1498	15

TABLE 7.

FINANCIAL SUMMARY 1946

Farm No.	No. of stores	Total ingoing	Total outgoing	Gross balance		Balance per head		Total weight increase	Total grazing days	Grazing days per head
				Surplus	Deficit	Surplus	Deficit			
		£	£	£	£	£	£	cwts.		
1	141	5082	5758	676	—	4.79	—	292½	18172	129
3A	19	703	903	200	—	10.53	—	44¾	3220	169
4	8	218	261	43	—	5.38	—	14¼	1282	160
5	38	1817	2078	261	—	6.87	—	93	4445	117
6	95	3663	4155	492	—	5.18	—	*	12716	134
7	8	370	401	31	—	3.87	—	13½	728	91
9	11	466	485	19	—	1.73	—	32¾	1696	154
12	32	1323	1474	151	—	4.72	—	62	4885	153
13	21	962	1016	54	—	2.57	—	26½	1722	82
14	32	1738	1834	96	—	3.00	—	55½	3560	111
15	12	644	705	61	—	5.08	—	31½	1464	122
17	43	1919	2107	188	—	4.37	—	86¾	4074	95
18A	10	532	617	85	—	8.50	—	13¼	910	91
18B	20	1039	1171	132	—	6.60	—	43½	2900	145
19	30	1539	1501	—	38	—	1.27	28¾	3927	131
20A	10	445	446	1	—	0.10	—	10¾	1589	159
20B	15	522	664	142	—	9.47	—	21½	2674	178
20C	19	583	713	130	—	6.84	—	18½	3402	179
23	29	758	829	71	—	2.45	—	*	4024	139
24	11	547	570	23	—	2.09	—	32¾	1719	156
25	22	945	1056	111	—	5.05	—	41¼	2500	114
26	20	816	942	126	—	6.30	—	45¾	2628	131
27A	35	1487	1623	136	—	3.89	—	48	4932	144
28	14	461	490	29	—	2.07	—	8½	1764	126
30A	16	702	747	45	—	2.81	—	49½	3250	203
30B	8	384	471	87	—	10.87	—	30½	1281	160
30C	20	921	1048	127	—	6.35	—	68¾	2884	144
30D	12	482	552	70	—	5.83	—	21	1170	98
30E	17	933	1038	105	—	6.18	—	36½	2370	139
31A	18	870	907	37	—	2.06	—	11½	3108	173
31B	30	1417	1457	40	—	1.33	—	33½	6134	204
31C	13	493	551	58	—	4.46	—	*	2786	214
32A	18	913	919	6	—	0.33	—	38	2250	125
32B	7	339	358	19	—	2.71	—	12	609	87
32C	17	586	740	154	—	9.06	—	39¾	2328	137
32D	4	158	169	11	—	2.75	—	2	609	152
32E	6	232	232	—	—	—	—	7½	732	126
32F	34	1094	1317	223	—	6.56	—	42½	7088	208
33	19	852	875	23	—	1.21	—	33	2315	122
34A	12	517	526	9	—	0.75	—	20¼	1095	91
34B	13	537	544	7	—	0.54	—	oss ¼	887	68
34C	13	490	528	38	—	2.92	—	22	2374	183
35	17	756	851	95	—	5.59	—	33½	1939	114
36A	15	750	772	22	—	1.47	—	23	2210	147
36B	19	861	918	57	—	3.00	—	26¾	3018	159
37	17	677	659	—	18	—	1.06	2	955	60
38	51	2185	2491	306	—	6.00	—	99	5180	102
39A	7	254	289	35	—	5.00	—	13¼	898	128
39B	13	436	582	146	—	11.23	—	35¾	1879	145
39C	16	360	455	95	—	5.94	—	*	2409	151
41	158	6853	7264	411	—	2.60	—	252¼	27274	172
42	22	927	1058	131	—	5.95	—	36	2463	112
44	12	595	633	38	—	3.17	—	16½	1297	108
45	16	834	923	89	—	5.56	—	24¾	1556	97
46	14	444	494	50	—	3.57	—	16¾	1498	107

*Not available.

TABLE 8.

TOTAL INGOINGS 1947

Farm No.	Number of stores	Ingoing value	Ingoing weights	Grazing charges	Labour	Supplementary feeding	Sundries	Total ingoing
		£	cwts.	£	£	£	£	£
1	101	3479	818	329	58	—	7	3873
4	5	190	46¼	17	5	9	1	222
6	97	3716	*	391	37	—	19	4163
9	10	350	78	32	7	26	1	416
12	31	1612	325½	115	20	—	—	1747
14	30	1656	370	163	6	—	2	1827
16	10	225	90	20	14	—	—	259
18A	10	520	125	34	5	—	1	560
18B	15	750	180	38	6	—	1	795
24	14	688	154	50	24	48	6	816
25	16	672	168	59	17	—	4	752
26	18	792	180	70	8	—	—	870
27B	24	969	221	75	3	—	2	1049
30†	56	2408	588	186	24	—	14	2632
30D	12	240	108	31	4	—	3	278
31A	17	797	182	56	22	5	—	880
31B	30	1268	297½	131	24	14	1	1438
31C	10	335	80½	30	20	7	1	393
32G	5	250	45	10	5	20	2	287
32H	72	3723	757	214	29	146	30	4142
36A	15	643	141	48	4	—	—	695
36B	18	756	162	61	6	—	—	823
37	6	300	58½	39	5	14	2	360
39A	7	220	49	15	8	1	—	244
39BC	20	720	175	66	11	7	4	808
39D	12	552	120	23	4	—	—	579
40	28	1372	322	261	12	39	4	1688
44	13	404	117	34	3	—	3	444
45	40	1778	389	120	16	9	5	1928
46	15	420	*	109	9	—	9	547

*Not available. †Entry for Farm 30 covers 4 bunches of cattle, A B C E.

TABLE 9.

DISPOSALS 1947

Farm No.	Numbers					Weights				Values				
	Fat	Stores	Casualties	Died	Total	Fat	Stores	Casualties	Total	Fat	Stores	Casualties	Died	Total
						cwts.	cwts.	cwts.	cwts.	£	£	£	£	£
1	22	76	2	1	101	238¾	716	21½	976¼	982	2850	82	—	3914
4	5	—	—	—	5	56	—	—	56	258	—	—	—	258
6	57	39	1	—	97	691¾	*	9½	*	3169	1309	45	—	4523
9	2	8	—	—	10	24	76	—	100	110	380	—	—	490
12	28	3	—	—	31	345¾	34½	—	380¼	1620	162	—	—	1782
14	30	—	—	—	30	384	—	—	384	1732	—	—	—	1732
16	—	10	—	—	10	—	*	—	*	—	278	—	—	278
18A	10	—	—	—	10	140¼	—	—	140¼	638	—	—	—	638
18B	15	—	—	—	15	208¾	—	—	208¾	947	—	—	—	947
24	14	—	—	—	14	181½	—	—	181½	850	—	—	—	850
25	8	8	—	—	16	97	88	—	185	461	399	—	—	860
26	—	18	—	—	18	—	206	—	206	—	930	—	—	930
27B	10	14	—	—	24	113¾	132	—	245¾	529	610	—	—	1139
30AB CE	41	15	—	—	56	509¼	172½	—	681¾	2254	720	—	—	2974
30D	—	12	—	—	12	—	129	—	129	—	370	—	—	370
31A	16	1	—	—	17	201	11	—	212	977	50	—	—	1027
31B	21	8	—	1	30	252	86	—	338	1196	370	—	4	1570
31C	7	2	1	—	10	64¾	17½	9¼	91½	295	68	19	—	382
32G	5	—	—	—	5	51¼	—	—	51¼	234	—	—	—	234
32H	73	—	—	—	73	876¼	—	—	876¼	4026	—	—	—	4026
36A	9	6	—	—	15	104¾	66½	—	171¼	505	299	—	—	804
36B	—	18	—	—	18	—	198	—	198	—	900	—	—	900
37	6	—	—	—	6	62	—	—	62	287	—	—	—	287
39A	—	7	—	—	7	—	*	—	*	—	286	—	—	286
39 BC	12	6	2	—	20	133½	63	17½	214	597	288	65	—	950
39D	—	12	—	—	12	—	*	—	*	—	608	—	—	608
40	22	5	1	—	28	291¼	61½	11	363¾	1457	274	26	—	1757
44	13	—	—	—	13	131¼	—	—	131¼	476	—	—	—	476
45	12	25	3	—	40	159¾	324	28	511¾	733	1469	86	—	2288
46	15	—	—	—	15	*	—	—	*	549	—	—	—	549

*Not available.

TABLE 10

TYPE AND GRADING ANALYSIS 1947.

Farm No.	Steers	Heifers	Other	Total	Homebred	Irish	Total	SS	S	A+	A	A—	B+	B	B—	C	Casualties	Died	Stores	Total
1	101	—	—	101	7	94	101	—	2	7	6	4	—	1	1	1	2	1	76	101
4	—	5	—	5	5	—	5	—	3	2	—	—	—	—	—	—	—	—	—	5
6	93	—	4	97	74	23	97	—	(2c (5	16	(1c (12	13	(1c (3	3	1	—	1	—	39	97
9	10	—	—	10	10	—	10	—	—	2	—	—	—	—	—	—	—	—	8	10
12	31	—	—	31	31	—	31	10	12	6	—	—	—	—	—	—	—	—	3	31
14	30	—	—	30	30	—	30	—	12	11	4	3	—	—	—	—	—	—	—	30
16	—	—	10	10	10	—	10	—	—	—	—	—	—	—	—	—	—	—	10	10
18A	10	—	—	10	10	—	10	—	10	—	—	—	—	—	—	—	—	—	—	10
18B	15	—	—	15	15	—	15	—	14	1	—	—	—	—	—	—	—	—	—	15
24	14	—	—	14	14	—	14	—	3	4	6	—	—	1	—	—	—	—	—	14
25	16	—	—	16	16	—	16	—	—	1	6	1	—	—	—	—	—	—	8	16
26	18	—	—	18	18	—	18	—	—	—	—	—	—	—	—	—	—	—	18	18
27B	24	—	—	24	24	—	24	—	—	5	4	1	—	—	—	—	—	—	14	24
30AB CE	56	—	—	56	—	56	56	2	14	8	5	5	7	—	—	—	—	—	15	56
30D	—	—	12	12	12	—	12	—	—	—	—	—	—	—	—	—	—	—	12	12
31A	17	—	—	17	5	12	17	—	4	5	1	1	—	3	2	—	—	—	1	17
31B	30	—	—	30	19	11	30	—	—	3	6	7	2	2	1	—	—	1	8	30
31C	—	9	1	10	10	—	10	2	—	—	—	1	—	1	3	—	1	—	2	10
32G	5	—	—	5	5	—	5	—	3	1	1	—	—	—	—	—	—	—	—	5
32H	73	—	—	73	—	73	73	1	34	29	8	1	—	—	—	—	—	—	—	73
36A	15	—	—	15	15	—	15	—	—	2	1	5	1	—	—	—	—	—	6	15
36B	18	—	—	18	18	—	18	—	—	—	—	—	—	—	—	—	—	—	18	18
37	—	6	—	6	6	—	6	—	—	1	4	—	—	—	1	—	—	—	—	6
39A	7	—	—	7	7	—	7	—	—	—	—	—	—	—	—	—	—	—	7	7
39 BC	20	—	—	20	20	—	20	—	—	5	5	2	—	—	—	—	2	—	6	20
39D	12	—	—	12	12	—	12	—	—	—	—	—	—	—	—	—	—	—	12	12
40	28	—	—	28	28	—	28	—	4	7	6	5	—	—	—	—	1	—	5	28
44	—	—	13	13	13	—	13	—	5c	—	2c	5c	—	1c	—	—	—	—	—	13
45	40	—	—	40	40	—	40	3	7	—	2	—	—	—	—	—	3	—	25	40
46	—	—	15	15	15	—	15	*	*	*	*	*	*	*	*	*	—	—	—	15

*Not available.

c—cows.

TABLE 11

GRAZING COSTS 1947

Farm No.	Rent	Lime and Manures (net)	Hedge and ditch maintenance	Charge for reseeding	Cultivations	Sundries	Total	No. of units	Cost per unit	Acres costed
	£	£	£	£	£	£	£		pence	
1	171	104	39	34	46	—	394	18126	5¼	114
4	12	8	9	—	2	—	31	800	9¼	7
6	276	84	50	—	15	—	425	11078	9¼	92
9	24	4	4	—	3	—	35	1604	5¼	10
12	95	—	22	—	4	—	121	3824	7¼	33
14	144	—	28	—	9	—	181	4237	10¼	36
16	15	—	5	—	—	—	20	1460	3¼	10
18A	40	—	7	—	1	—	48	1325	8¾	12½
18B	60	—	13	—	2	—	75	2810	6¼	22
24	36	—	11	—	3	—	50	1553	7¾	12
25	49	21	23	39	3	—	135	4872	6¾	49
26	53	20	19	12	4	—	108	3201	8	26
27B	71	—	—	—	4	—	75	3237	5½	26
30*	159	19	11	—	27	—	216	8440	6	70½
30D	25	—	1	—	5	—	31	1349	5½	11
31A	51	—	6	—	3	2	62	3060	4¾	17
31B	110	13	5	18	14	—	160	6670	5¾	55
31C	46	—	3	—	3	—	52	3450	3¾	23
32G	5	—	4	—	2	—	11	485	5½	3½
32H	192	25	12	—	66	10	305	13272	5½	128
36A	40	—	4	—	4	—	48	1988	5¾	16
36B	44	—	10	—	7	—	61	3576	4	22
37	33	—	6	—	—	—	39	876	10½	19
39A	9	2	1	—	1	—	13	1083	3	6
39BC	27	10	6	23	3	—	69	2467	6¾	18
39D	26	8	2	—	5	—	41	1641	6	14
40	132	97	23	—	9	—	261	4014	15½	44
44	24	9	12	—	2	—	47	1338	8½	12
45	84	46	14	—	—	4	148	6008	6	42
46	90	—	12	—	7	—	109	1810	14½	15

*Entry for Farm 30 covers 4 bunches of cattle, ABCE

TABLE 12.

FINANCIAL SUMMARY 1947.

Farm No.	No. of stores	Total ingoing	Total outgoing	Gross balance		Balance per head		Total weight increase	Total grazing days	Grazing days per head
				Surplus	Deficit	Surplus	Deficit			
		£	£	£	£	£	£	cwts.		
1	101	3873	3914	41	—	4.1	—	158	15055	149
4	5	222	258	36	—	7.20	—	9¾	450	90
6	97	4163	4523	360	—	3.71	—	*	10966	113
9	10	416	490	74	—	7.40	—	22	1466	147
12	31	1747	1782	35	—	1.13	—	63¾	3236	104
14	30	1827	1732	—	95	—	3.17	14	3823	127
16	10	259	278	19	—	1.90	—	*	1460	146
18A	10	560	638	78	—	7.80	—	15½	950	95
18B	15	795	947	152	—	10.13	—	28¾	1425	95
24	14	816	850	34	—	2.43	—	27½	1533	109
25	16	752	860	108	—	6.75	—	17	2149	134
26	18	870	930	60	—	3.33	—	26	2034	113
27B	24	1049	1139	90	—	3.75	—	24¾	3237	135
30†	56	2632	2974	342	—	6.11	—	93¾	7245	129
30D	12	278	370	92	—	7.66	—	21	1349	112
31A	17	880	1027	147	—	8.65	—	30	2880	169
31B	30	1438	1570	132	—	4.40	—	41	5472	182
31C	10	393	382	—	11	—	1.10	11	2016	202
32G	5	287	234	—	53	—	10.60	6¼	485	97
32H	73	4142	4026	—	116	—	1.59	119¼	9152	125
36A	15	695	804	109	—	7.23	—	30¼	1988	132
36B	18	823	900	77	—	4.28	—	36	3576	193
37	6	360	287	—	73	—	12.16	3½	885	147
39A	7	244	286	42	—	6.00	—	*	1169	167
39BC	20	808	950	142	—	7.10	—	39	2354	118
39D	12	579	608	29	—	2.42	—	*	948	79
40	28	1688	1757	69	—	2.46	—	41¾	4016	143
44	13	444	476	32	—	2.46	—	14¼	881	68
45	40	1928	2288	360	—	9.00	—	122¾	5408	135
46	15	547	549	2	—	0.13	—	*	1810	121

*Not available. †Entry for Farm 30 covers 4 bunches of cattle, A.B.C.E.