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Changing Land Use in North East Lancashire during the Second World War

Dr Charles Rawding
Edge Hill University
Email: Rawdingc@edgehill.ac.uk

Abstract:

The demands for a rapid increase in domestic food production during the Second World War resulted in significant changes in agricultural land use from 1939. Government intervention through the activities of the County War Agricultural Executive Committees (CWAECs) had a major impact on agricultural practice.¹ This paper investigates how agricultural land use changed within the district of North East Lancashire, and by considering data over a twenty year period (1931-1951) assesses the extent to which the impact of these changes lasted beyond the end of the war.

Key words:

Agriculture, Land Use, Second World War, North East Lancashire.

Introduction

Pre-war farming

Agriculture during the first forty years of the twentieth century can be characterised in terms of the significant economic difficulties that farmers faced while experiencing low prices as a result of cheap foreign imports, particularly of grain crops. The only respite from this scenario came with the introduction of price support and farm intensification during the First World War. However, the repeal of support prices in 1921 led to a return to pre-war conditions. A series of initiatives in the 1930s including a wheat deficiency payment and marketing schemes for hops (1932), milk (1933), potatoes and bacon pigs (1934) helped stabilise farmers' incomes (Short *et al*, 2000: 15-16). To some extent the situation was less severe on farms with easy access to urban markets for milk and livestock sales which indeed benefited from lower feed prices, nevertheless the overall situation remained economically difficult and resulted in a significant reduction nationally (17.5%) in the farm workforce with consequent rural depopulation and associated social issues. In the case of hill farms, they were seldom able to provide more than a bare living for their operators in the 1930s (Perren, 1995).

'By 1939, British agriculture was deemed moribund after years of landed depression and subsequent lack of investment. Traditional methods, impoverished farms and derelict fields and buildings were the norm, and over much of England and Wales the countryside resembled a rabbit-

infested wilderness rather than a productive farming scene' (Short *et al*, 2000: 16-17). According to one contemporary account of the farming scene: 'sagging roofs, rotting thatch, broken walls beneath which the stones lay where they fell, unpainted gates, undrained and underformed pasture were in those days as eloquent and sad as the men who stood on the streets of Wigan' (cited in Martin, 2000: 9).

In the case of North East Lancashire, a lengthy article on the development of Downham Hall Farm which discussed the improvements being introduced by the landlords (the Assheton family), concludes: 'It is pleasing in these days of agricultural depression to encounter landowners with sufficient confidence to embark on an extensive scheme of development.' (Clitheroe Advertiser and Times (hereafter CAT) 10th March 1939)

As a result of the relatively impoverished and rundown state of agriculture, there was a real urgency about transforming agricultural productivity at the onset of war, when it became clear that an over-dependence on imports which could no longer be guaranteed might result in the very real threat of the nation being starved as a result of blockade by German U-boats. In 1939, British agriculture produced only 42% of the country's total food requirements (Martin, 2000: 10). It was in this context that increasing levels of state intervention to boost agricultural productivity and improve farming practices became apparent towards the end of the 1930s as war loomed. (Murray, 1955: 72; Short *et al*, 2000: 18-19)

Farming in the Second World War

The principal means for achieving the necessary increase in food output was the ploughing up of grassland. It was calculated that one acre of arable under wheat would produce 2 million calories, or under potatoes 4.1 million calories, whereas under pasture one acre would produce 120,000 calories from meat or 450,000 calories from dairying (Short *et al*, 2000: 32). Surveys also suggested that much of the existing grassland was relatively low yielding.

As preparations for war intensified, the Agriculture Development Act of 1939 enabled payment of £2 for every acre of permanent grass (grass that had been down for at least seven years) put under the plough with a first season target (1940) of an extra 2 million acres of arable land (about 10% of the pasture area in June 1939). The County War Agricultural Executive Committees (CWAECs) were each given a quota which broadly equated to 10% of the area of permanent grass (Murray, 1955: 72-3; Short *et al*, 2000: 33).

The aims of the government were spelt out clearly by the Minister of Agriculture in a broadcast on the day war broke out:

'For your immediate after-harvest plans most of you must think in terms of ploughing up more land, both for the supply of human feed and animal feedingstuffs. You should get on with the job by ploughing up at least 10 per cent of your present grassland. Newly ploughed land should be sown to wheat where it is likely to yield a satisfactory crop or, alternatively, should be used for potatoes, or such crops as oats, barley, beans, peas, rye or mixed corn for next year's harvest.' (cited in Murray, 1955: 73)

Another 2 million acres were scheduled to go under the plough in the autumn/winter of 1940/41 with price supports being promised until the end of the war. In 1942 a further 1.2m acres were required, a figure that was reached; while by 1943, an additional 1.5 million acres were ploughed although 300,000 acres reverted to temporary grass in order to retain soil fertility. This was to mark the peak of the plough-up campaign, in the following year (1943/4) another 500,000 acres were ploughed but almost the same amount was returned to temporary grassland (Short *et al*, 2000: 33-35).

Under the Defence of the Realm Act, the Minister of Agriculture was given sweeping powers:

'To preserve and maintain agricultural land solely for the production of food; to control by order, the cultivation, management and use of land in order to secure maximum production of food from the farms, to terminate any tenancy of agricultural land where it is considered that the land is being neglected or badly cultivated; to introduce special measures for the destruction of birds, rabbits, deer, vermin and pests.' (cited in Martin, 2000: 37)

The introduction of price support mechanisms and the lack of imports had a significant impact on agricultural prices during the war. However, guaranteed prices and

price controls for agricultural products were not introduced simultaneously, hence the rather wide variations shown in prices at the beginning of the period. The result was that by the spring of 1940 levels of profitability for agricultural commodities were as follows (in decreasing order): oats, eggs, pigs, fat cattle, wheat, sheep, milk, sugar beet and potatoes. The expansion of tillage by farmers during the ploughing-up campaign clearly reflected these economic realities rather than government aspirations for food production (Martin, 2000: 38).

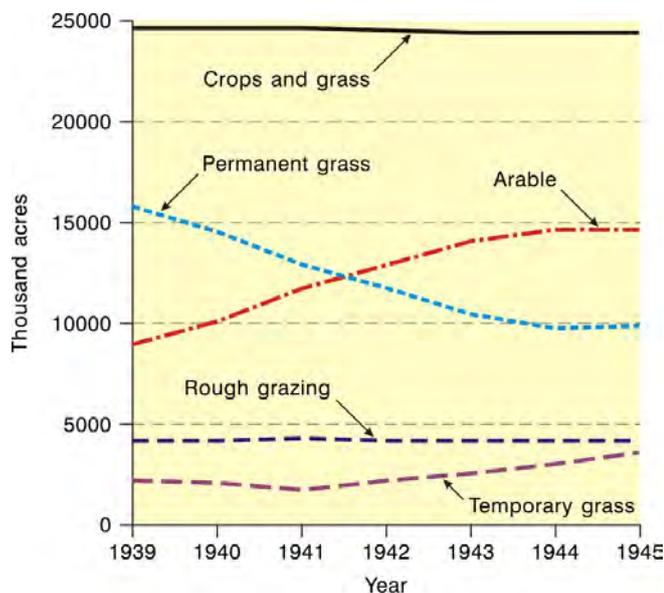
By the summer of 1941, the Ministry of Food's overriding aim was to maximise production of import-saving foods such as wheat, potatoes and sugar beet through the rationalisation and curtailment of livestock production. Throughout the war, farmers received a £4.93 per ha subsidy for ploughing up permanent pasture. In terms of livestock production nationally, dairy farming had priority to ensure milk output could be maintained, while beef, sheep and other forms of livestock production declined during this period (Martin, 2000: 39-40).

A separate policy was introduced for upland farmers, whose economic problems had been exacerbated by the Ministry of Supply fixing wool prices at very low levels in order to manufacture uniforms cheaply for the armed forces. As a result, the government provided a subsidy payment in 1940 equivalent to 12½ p per ewe for hardy hill breeds, which was subsequently raised to 40p per head in 1942. This was effectively a subsidy to keep hill farmers going when there was no normal outlet for their products (Martin, 2000: 40-41).

The policies introduced during the war have been considered a great success. Food production nationally increased by approximately 25%, and the population continued to be fed at a time when food imports fell by 55% (Murray, 1955: 340). However, the overall growth in production did conceal a number of variations between products. Nationally, between 1942 and 1945, cereal production rose by over 85%, while milk production fell marginally, and the output of beef and veal declined by over 12 per cent, mutton and lamb by nearly 23%, pigmeat by a huge 65%, and eggs by nearly 44% (Mingay, 1994: 246). Most of the increased production was achieved by bringing back into cultivation land that had reverted to grassland or scrub at times of low crop prices. Indeed, by the end of the war, arable acreages in England and Wales had almost reached a level last seen in the 'Golden Age' of British farming at the beginning of the 1870s (see Figure 1) (MAFF, 1968). In the context of more than 60 years of suburban expansion combined with the loss of over 800,000 acres (324,000ha)

of agricultural land for war purposes (much of which was good quality land) (Martin, 2000: 49), this was clearly a dramatic change. There is little doubt that the policies that were implemented achieved their aims. Indeed, in the difficult years following the war, import saving was equally urgent and the need to continue to raise output to ward off starvation in the later 1940s provided further vindication for the wartime policies. As Holderness states: 'Britain may have been hungry in 1947 but none died of starvation in that dire winter.' (Holderness, 1985: 11)

Figure 1: Agricultural land use in England and Wales, 1939–1945.



Source: MAFF 1968

These changes were not without a cost to agriculture. The output of foodstuffs had stalled by 1944-5 because, as Murray rightly states:

'Reserves of soil fertility built up before the war had been consumed; continuous cropping was leading not only to soil exhaustion but also to deterioration of the soil structure; and the disruption of normal relations in many parts of the country was bringing in its train serious trouble from weeds, diseases and pests. Ley farming was the remedy and more grass hay or ensilage entailed more livestock to consume it and, thereby, more milk and dairy produce, beef and mutton – a not unwelcome prospect to a starch-wearied people.' (Murray, 1955: 221)

While the national picture outlined above provides a clear framework for understanding agricultural change during the war, the impact of hostilities had very marked regional differences. In the arable areas of eastern England, there was little change beyond the ploughing-up of some pasture and the disposal of pigs and sheep. By contrast, the grazing

counties of the Midlands experienced 'a revolution, to be effected with machines that had still to be acquired, with men who had to be brought from elsewhere and housed, with farmers who had never set a plough or drilled a field of corn.' The dairy farmers of the north and west had real problems as a result of the absence of imported feedingstuffs, while hill farming generally lost its main markets in those lowland farmers who had previously bought livestock for fattening (Whetham, 1952: 108-117).

War-time farming in North East Lancashire²

The principal purpose of this paper is to assess the impact of the war years on one specific region within Lancashire, namely District No 5; North-East Lancashire (see Figures 2 & 3). By focusing on an area under the auspices of one district committee, it is hoped that the consistent application of policy within the district will allow a detailed consideration of how that policy resulted in land use change in the 66 parishes considered.

Figure 2: The districts of Lancashire.

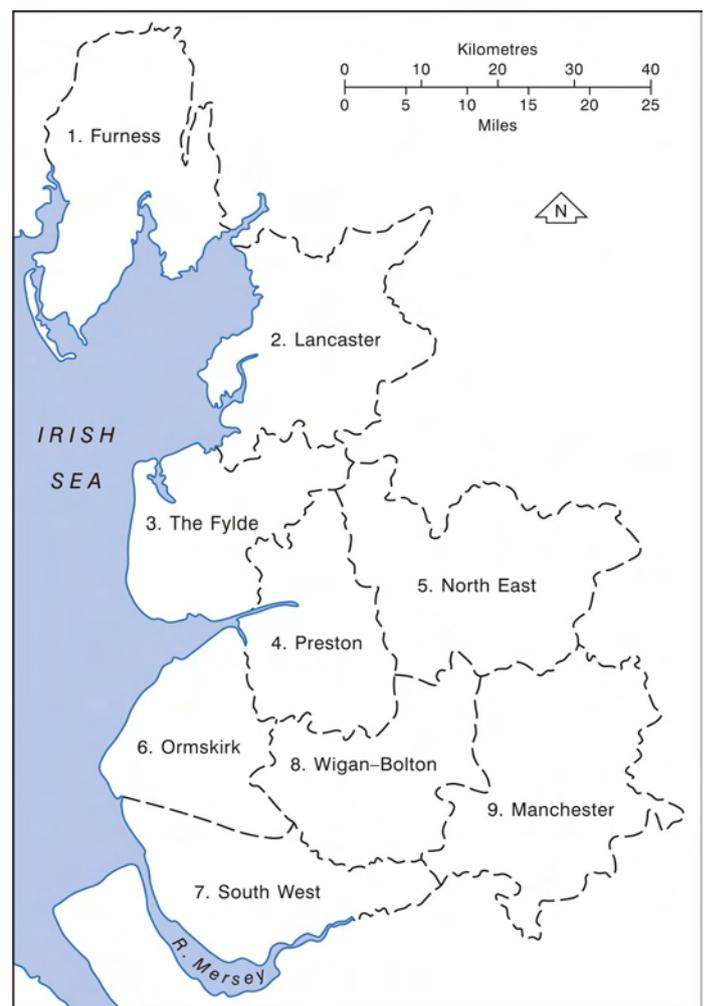


Figure 3: District No 5 – North East Lancashire.



The area under discussion comprises the grit uplands of Bowland, Rossendale and the Pennines. Carboniferous limestone occurs at the surface where fluvial erosion has cut through the uplands along the Ribble around Clitheroe and the Hodder near Slaidburn. The greater part of the surface is of Bowland shales, millstone grit and coal measures (Smith, 1941). It was an area regarded as being bleak and with an agriculture blighted by its altitude (TNA. MAF38/213). When comparing the uplands with the Lancashire plain, there are clearly some very real physical constraints. For instance, Darwen was approximately 2°F (1.7°C) cooler with a resultant shorter growing season and while this did not necessarily preclude arable cultivation, the lack of sunshine made ripening precarious. At the same time, rainfall was conspicuously heavier than on the lower land to the west at over 40 inches (1016 mm) rising to 70 inches (1778mm) in the higher valleys and on the summits (Smith, 1941: 53).

The pre-war situation

Smith commented in the early 1930s that: 'The grit uplands have the whole of their improved land in grass. There is an entire absence of arable fields and the plough is only used to break up deteriorated pasture and to re-seed with better grazing grasses. The unimproved land is mostly in grass. There is very little land in wood, only the steeper rockier slopes of the mountain cloughs. The sole object of farming on these uplands is stock. In the mid-Pennines in the watershed areas between the industrial towns of West Yorkshire and of East Lancashire many thousands of acres have been withdrawn entirely from farming by municipal water authorities. Almost every moorland valley has its reservoir and no stock, for fear of water pollution, is kept within the limits of its gathering ground. There is some planting of conifers on these gathering grounds, but it has not always been successful. Grass is the basis of stock

farming, but there is a great deal of variation in the quality of the grass. The best grass is in the limestone pastures of the valley floors of the Ribble and Hodder valleys and on the lower western flanks of the uplands where the local grit soils have been modified by drift.' (Smith, 1941: 61)

In the valleys and on the hillsides south of the Ribble in close proximity to the industrial towns and villages of East Lancashire, the primary object of grass farming was the local liquid milk market. But north of the Ribble at a greater distance from centres of consumption, dairying was for farm-house cheese-making, although the creation of the Milk Marketing Board in 1933 resulted in more milk being sold in liquid form than previously. Near the industrial towns many farms kept no sheep and their stock was limited to dairy cows and poultry, but north of the Ribble the sheep flock and often also young and fattening cattle formed integral parts of the farm economy. Near the industrial centres farmers concentrated on a few products which they sold retail, north of the Ribble they pursued a more varied live stock economy selling their products wholesale. (Smith, 1941: 62) This was a situation little changed since before the First World War, and Hall (1913) comments in very similar fashion about the area. In terms of the physical geography of the area, it is clear from the Land Utilisation Survey maps of 1931-2 that heath, moorland, commons and rough pasture dominated the fells, with meadowland and permanent grass found on the lower land. The minimal amounts of cropland were found in a few small areas along the Ribble Valley.

The effects of war

The outbreak of war resulted in dramatic changes to the landscape. In August 1940, the Clitheroe Advertiser and Times stated:

'Twelve months ago, nobody would have expected to see large areas of Clitheroe and district used for arable crops before harvest time came round again, and not many would have believed that big crops of oats would not only be grown but ripened in Ribblesdale in 1940 ... The Valley has taken on a new office. Furrows of good brown earth changed the traditional scene of meadow and pasture and these furrows have since produced their crops. Some have been gathered but much of the excellent grain crop is now waiting to be harvested.' (CAT 9th August 1940). The initial plough-up quota of 3,000 acres for 1940 was exceeded (CAT 1st March 1940).

To achieve this transformation and further ploughing up targets during the war years, the government combined with the farming community to produce a sustained programme to educate farmers about the best ways to introduce unfamiliar farming techniques. Since, farmers specialising in milk, pigs or poultry and relying on imported feeding-stuffs were ill-equipped with tools or knowledge for tillage

operations (Short, 2007: 225). The reports of the Lancashire Director of Education to the Agricultural Sub-Committee at the beginning of the war provide a range of examples of the approach being taken. Evening lectures were provided for farmers, along with ploughing demonstrations and advisory visits to farms. Here we can identify a marked contrast between the winter report pre-war (9th January 1939) and the winter report of 8th January 1940. In 1939:

'The Organiser for East Lancashire reports that as usual at this season of the year the majority of the adviser visits have been in response to requests for advice on grassland management and stock feeding problems.'

In 1940, however the emphasis was very different:

'The Organiser for East Lancashire reports that during the quarter, 204 advisory visits have been paid. In addition a large number of farms have been visited in the course of the ploughing survey. To enable farmers to become more familiar with ploughing in the purely grassland districts, ploughing demonstrations by horse and tractor teams have been held at eight centres and details regarding appropriate cropping, manuring etc have been discussed with farmers on each occasion.' (Lancashire Record Office CC/EAM/10)

In a similar vein, from a newspaper with farming stories dominated by livestock issues prior to the outbreak of war, the Clitheroe Advertiser and Times becomes a fertile source of information on a range of newly topical issues including; two articles on 'Practical farming' by A Lancaster Smith discussing the effective handling of turnip crops and 'modern methods of spraying potatoes', and the autumn and spring sowing of oats along with a detailed discussion of the merits of ploughing with tractors (see figure 4) (CAT 20th & 27th October 1939). 'The Ferguson tractor plough illustrated has been purchased by Messrs Robinson and Spensley, egg and produce merchants, of Clitheroe with the object of assisting local farmers desirous of taking advantage of the Government subsidy.' A tractor and ploughing demonstration was held for farmers (CAT 27th Oct 1939).

At the Annual General Meeting of the Clitheroe and Bowland branch of the National Farmers Union,³ the invited speaker, Mr E Glover from Leyland, gave detailed advice on the subject of ploughing and the types of crops to grow (CAT 5th Jan 1940), while three months later the Clitheroe Advertiser and Times carried the article: 'Making the most of ploughed land: suitable crops and how to grow them.' Practical hints from Mr G B Wells (CAT 1st March 1940).

By May 1940, the educational emphasis had shifted to effective production of silage with a Ministry of Agriculture advert 'Plan for silage now' appearing prominently in the paper (CAT 10th May 1940).⁴ This was followed up by a further advert 'Make silage now' which appeared above an article entitled 'Making silage: demonstration at Chatburn Farm' where a group of local farmers were shown how to

Figure 4: Bowland coming under the plough.



Photo. Advertiser and Times.

This photograph, taken on Wednesday afternoon at Stunness field, Grindleton, attached to Townley House Farm, tenanted by Mr. T. Holgate, illustrates the ease and efficiency with which land, hitherto devoted exclusively to grazing, can be turned up to play its part in the home defence by increased food production.

Mechanised machines now turn up the good brown earth with all the old-time skill—and infinitely greater speed—than the horse-drawn implement. The Ferguson tractor plough illustrated has been purchased by Messrs. Robinson and Spensley, egg and produce merchants, of Clitheroe, with the object of assisting local farmers desirous of taking advantage of the Government subsidy.

A demonstration was given on Wednesday by Mr. Richard Dalton, a youthful instructor trained at the Westmorland and Cumberland Agricultural School, to an interested assembly of agriculturalists and in about an hour's time an acre of

land had been ploughed in long straight furrows.

It is claimed that the tractor will do as much work in 1½ hours as would a horse-drawn implement in a day. Two 10in. furrows, 4½in. deep, are made at one cutting, and the tractor calls for no more attention than a motor-car. Not only so, but running expenses are altogether disproportionate to the maintenance of a horse, while the tractor-plough is also fully equipped for mowing, the attachment for which can be fitted without any difficulty.

It is anticipated that by the beginning of next year the four-acre field at Townley House will be sown with oats. Mr. Holgate expressed satisfaction with the demonstration, and Messrs. Robinson and Spensley, who are letting the tractor-plough on hire, are to be complimented on their enterprise in securing for local farmers such an efficient mechanical implement for which, having realised its great value and speedy efficiency, there should be a widespread demand.

produce silage by the 'silage organiser' for the district, Mr E G Chapman (CAT 16th August 1940).

The paper continued to promote the virtues of mechanisation with an article discussing the acquisition of a reaper-binder by Mr Geo Waddington of Salt Hill Villa Clitheroe, the paper urged: 'farmers with corn to bind should get in touch with Mr Waddington straight away.' (CAT 9th August 1940). By the final months of the year, the Clitheroe Advertiser was carrying a significant number of advertisements for agricultural implements, reaping and binding services and threshing equipment. However supply of equipment was far from adequate in many instances. In July 1939, the Organiser for East Lancashire reported that: 'Unfortunately many farmers do not have the necessary equipment to deal with their land in this manner and there are very few contractors in the district who undertake this class of work.' Nine months later, he similarly reported that: 'On many of the small farms undertaking ploughing for the first time very few implements are available and contractors with tractor outfits have been busily engaged' (Lancashire Record Office CC/EAM/10).

In October 1940, the Clitheroe Advertiser reported on a demonstration entitled: 'Ploughing for grass, profitable

reseeding on Waddington Fell' as part of the campaign to enable farmers to improve their pastures and thereby become more self-sufficient in feedstuffs (CAT 4th October 1940). The Advertiser continued to reflect the changes in agriculture and the priorities of government during 1941. By May 1941, George Waddington was advertising himself as a 'Farmers' Tractor Service' while a June issue discussed at length a demonstration: 'Silage is essential: practical hints at Low Moor' the explicit aim of which was to produce 'self-supporting farms' (CAT 2nd May 1941, 13th June 1941).

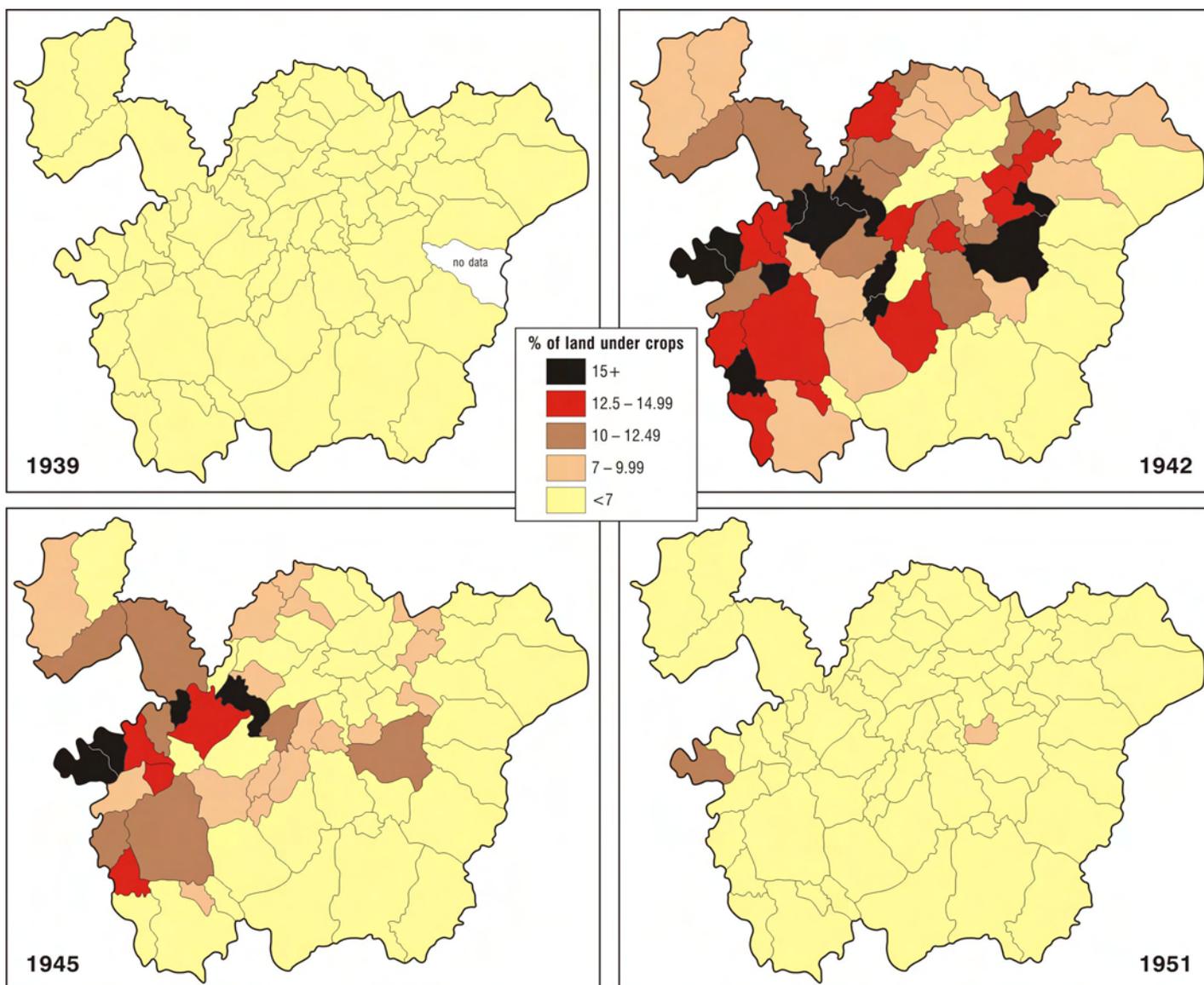
In July, the Ministry of Agriculture advert demanded to know 'How will you produce your winter's milk?' directing farmers to order their silos, molasses, sulphate or ammonia (CAT 18th July 1941). By October 1941, the paper is reporting the first fines given to farmers for failing to comply with ploughing orders, and at the same time comments on the 8,000 ploughing orders signed by the Lancashire War Agricultural Committee in its attempt to meet the government plough-up target of not less than 35,000 acres of grassland (CAT 24th October 1941).

If we now turn our attention to the annual agricultural returns (TNA. MAF68) for the period, it is possible to identify the actual changes in land use that occurred through the period under consideration.⁵ The impact of these developments on land use can be seen clearly in Figure 5 when comparing the 1939 and 1942 maps.⁶

Throughout the 1930s, crop production comprised a very small percentage (0.33% in 1931) of the total agricultural land in all of the parishes under consideration. In 1931, only two parishes, Brierfield, a small, largely urban parish, and Billington, on the south bank of the Rivers Calder and Ribble, had more than two percent of their total farm area under crops. Interestingly, these two parishes were also the only parishes to experience significant increases in crop acreage by June 1939. By contrast the first three years of the war show a big leap in crop production across almost all of the parishes. In 1942, only two small upland parishes, Dunnockshaw and Yate and Pick Up Bank, have less than 2 per cent of their land under crops and the average across the whole area rose to 9.11%. 10 parishes had 15 per cent or more of their land under crops. Overall totals of land under crops then fell back slightly by 1945 before falling more steeply to 1951, although it is worth noting that significantly more land (1.8%) remained under crops than had been the case in 1939 (0.31%).

If we now turn our attention to the nature of the parishes that had most land under crops during the war, several factors can be identified (see Table 1 column 2). All of the parishes are on the lower land, with six of the ten

Figure 5: Percentage of land under crops in North East Lancashire, 1939–51.



parishes to be found in the west of the district along the valleys of the Ribble and Calder, including the two parishes with the greatest proportion of their land under crops, Osbaldeston and Balderstone.

By the beginning of 1942, labour shortages had become an issue. At the AGM of the Clitheroe and Bowland NFU, one farmer is quoted as saying: ‘We have had a lot of extra work to do in ploughing up, and if they take any more men, I don’t know how we shall manage.’ (CAT 2nd January 1942). Later in the same month, it was announced that the children of Bowland would be given longer school holidays to assist with the harvest (CAT 30th January 1942).

By the end of 1942, criticisms of the plough-up policy began to be aired. The NFU protested strongly against any further increases in arable acreages, arguing that after the Lake District, ‘Bowland is the wettest part of the country’

Table 1: Parishes with more than 15% of land under crops, 1942–45.

Parish	% of land under crops (1942)	% of land under crops (1945)
Osbaldeston	21.53	16.77
Balderstone	21.45	19.5
Brierfield	17.59	9.72
Church	16.98	8.14
Whalley	16.48	15.94
Livesey	16.29	13.22
Burnley	16.25	11.45
Ramsgreave	16.11	13.77
Dinckley	15.95	15.86
Billington	15.73	14.63

where 'a lot of the land was sod drained and the drains would break immediately the tractor touched it and in a few years time the land would be rendered useless' (CAT 20th November 1942). There were also other problems relating to the increase in arable acreages, with one farmer observing: 'I know of a man who still has 50 acres of oats because the War Agricultural Committee could not send harvesters at the proper time.' (CAT 20th November 1942)

Indeed, 1942 was the high water mark in terms of arable acreages, with clear reductions in acreages by 1945 (Figure 5 iii & Table 2 column 3). Crop acreages fell from 11,734 in 1942 to 7,724 in 1945. As the maps for 1942 and 1945 show, there was an overall reduction in acreages across the district, with only nine parishes out of the 54 in the four upper quintiles remaining in the same quintile, while 44 of the remaining 45 dropped into a lower category. The only parish to increase its acreage of crops into a higher quintile was Altham (6.2% in 1942, 7.8% in 1945). By 1951, these

Figure 6: Advert for the Preston Guardian, 1942.



Source: Royal Lancashire Agricultural Society Journal, 1942.

crop acreages had fallen further still, to 2230. However compared to pre-war figures, this still marked a significant increase as only 367 acres of crops had been grown in the district in 1939.

Changes in livestock⁷

The prominence given to the plough-up campaign and the determination to maximise production had significant implications for livestock husbandry. By 1942, there was a noticeable shift in emphasis in the pages of the Clitheroe Advertiser and Times as articles appeared designed to increase output from livestock. Mr J J Green, Principal of the Hutton Institute of Agriculture, Preston⁸ and Secretary of the Lancashire CWAEC was given a column in the paper designed to pass on relevant information to the farmers. In April 1942, he discussed dairy production:

'Many cows were being kept which did not give an adequate return in milk for the food consumed. The limited supplies of available food must be fed to animals that would fully earn their keep and inefficient producers should be ruthlessly culled. It was evident that rations would depend on milk yield and dairy farmers could not afford to pull their average down by retaining poor milkers.' (CAT 24th April 1942)

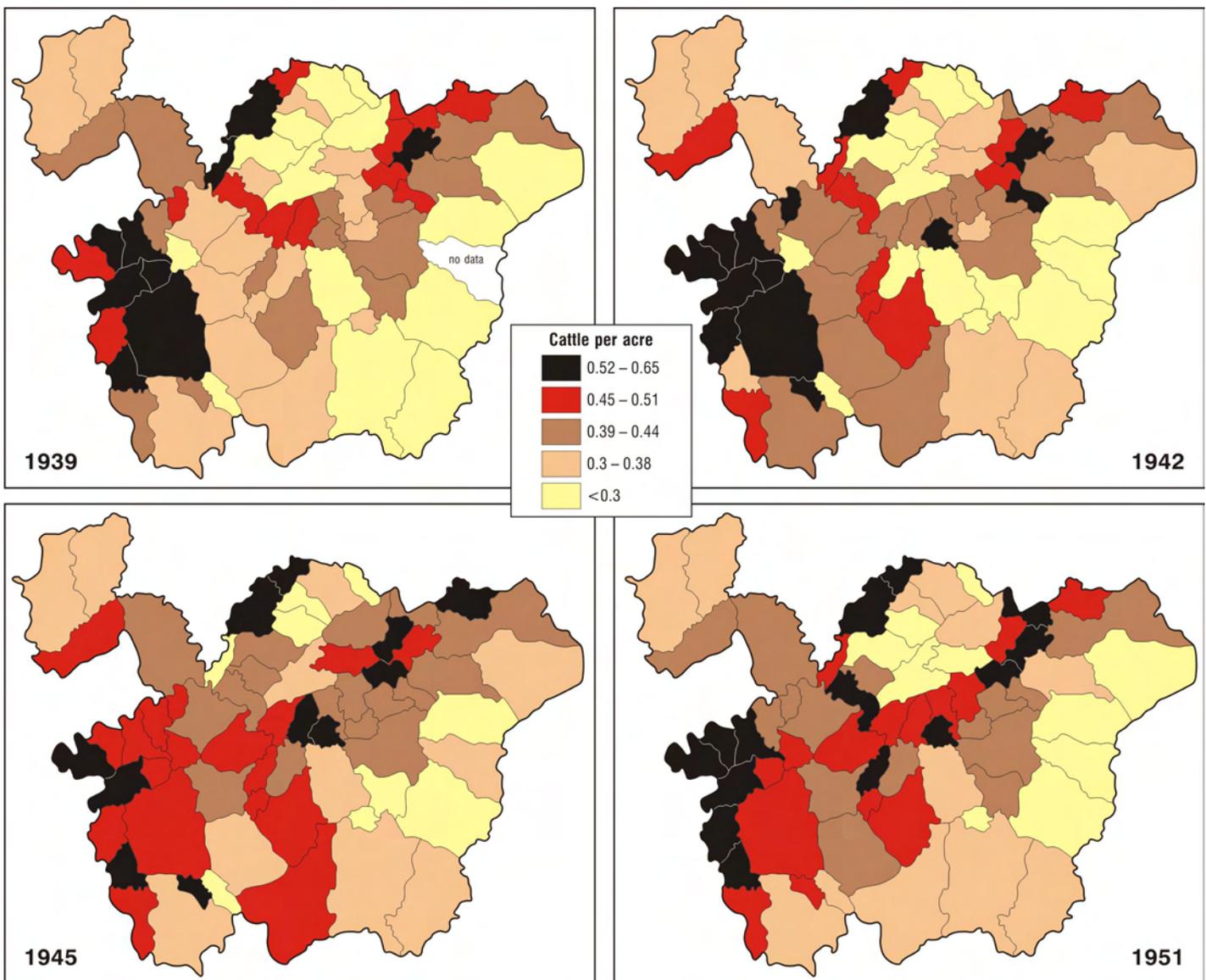
In 1943, there was a series of articles on improving the quality of cattle herds through selective breeding (see especially CAT 10th September 1943). Articles by Green continue through into 1944. Such articles were clearly aimed at the whole of Lancashire as Green also wrote for the Preston Guardian, and his reputation was such that the Preston Guardian chose to highlight the articles in an advert for the paper on the back cover of the Journal of the Royal Lancashire Society in 1942 (see figure 6).

Cattle

As has already been discussed, the area was dominated by livestock production, however numbers of livestock and the relative importance of different types of livestock vary significantly during the period in question. The numbers of cattle grew steadily from a low of 36,425 in 1931, reaching a peak of 50,125 in 1945 before falling back slightly to 48,636 in 1951. Within this total however, there was a shift in terms of the proportions of dairy cattle. At the beginning of the 1930s, 57.6% of cattle were in milk. While absolute numbers of dairy cattle increased slowly during the 1930s reaching a peak in 1942, the proportion of dairy cattle dropped steadily throughout the war, a decline which continued to 1951 when only 42.7% of cattle were in milk.

The overall trend in cattle numbers can be seen in Figure 7. The parishes with the greater numbers of cattle/acre were found in the west of the district along the south bank

Figure 7: Cattle per acre in North East Lancashire, 1939–51.



of the River Ribble and around the town of Blackburn, along with a group of urbanised parishes along the valley of the Calder running through east Lancashire. Upland parishes on Pendle Hill and to the east of Burnley had the lowest stocking densities.

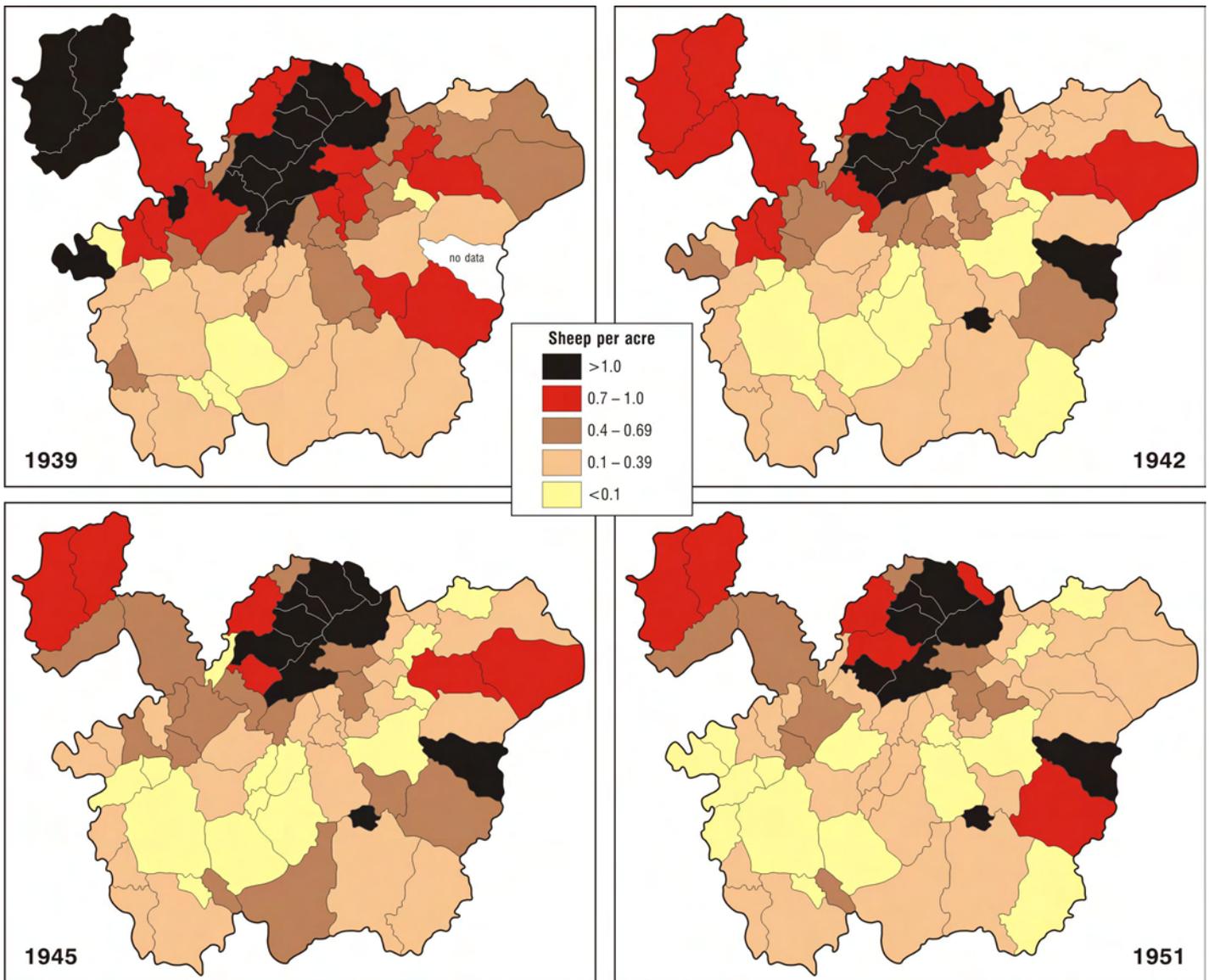
For milk producers, the early years of the war presented significant difficulties. In 1940, the Milk Marketing Board kept the price of milk at the same level as 1939, while increases in the price of feedstuffs combined with reduced quantities and quality of feeding stuff led to lower yields. At the same time, the price of dairy cattle rose by 30%. At the Annual General Meeting of the Clitheroe and Bowland National Farmers Union in 1940, Mr E J Smith complained: 'It's no good shouting 'Produce farmers, produce' when you've taken away his men and rationed his provender.' (CAT 5th January 1940) Such complaints were frequently voiced during the early part of the war.

If anything the plight of the stock rearer was even worse with one farmer, Mr T Robinson of Dale Head stating categorically that: 'unless the stock-rearer got better treatment there would soon be a serious shortage of young animals for the dairy farmers (CAT 5th January 1940). After an initial increase in stocking densities between 1939 and 1942, with 22 parishes appearing in a higher quintile and only six dropping to a lower category, there was something of a levelling off between 1942 and 1945, with 20 parishes showing an increase and 13 showing a decrease.

Sheep

As Figure 8 shows, sheep stocks were highest in the north of the region around Pendle Hill and the Forest of Bowland with lower stocking levels around the main urban areas and on the hills of the West Pennine Moors.

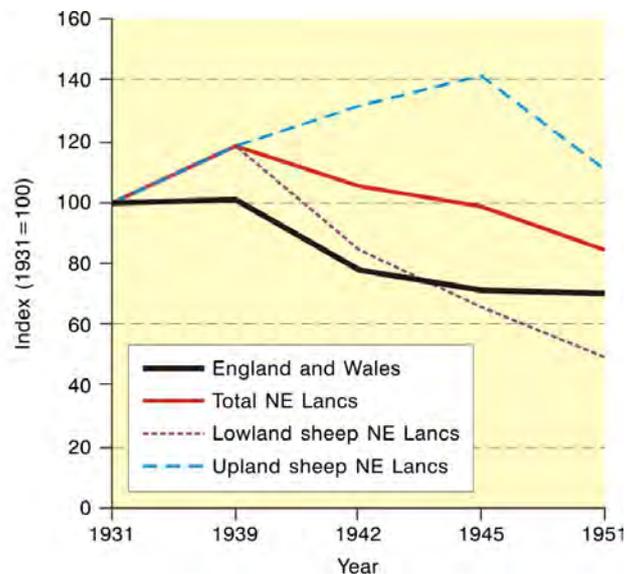
Figure 8: Sheep per acre in North East Lancashire, 1939–51.



During the depressed years of the 1930s, the numbers of sheep in the district grew significantly, from 62,056 in 1931 to 73,565 in 1939, before falling back dramatically over the following 12 years to only 52,317 in 1951. In the period 1939-1942, 33 parishes dropped into a lower quintile with five showing an increase. Decline continued between 1942 and 1945 with 17 parishes showing a decline against six parishes with an increase.

The drop in sheep numbers was not a uniform one across the region. In common with national trends, the reduction in flocks was most marked in those lowland parishes where more land was being ploughed up and converted to arable. In North East Lancashire, the parishes along the banks of the rivers Ribble and Calder experienced much sharper drops in sheep numbers than the rest of the district (see Figure 9).

Figure 9: Changes in sheep numbers, 1931-51.

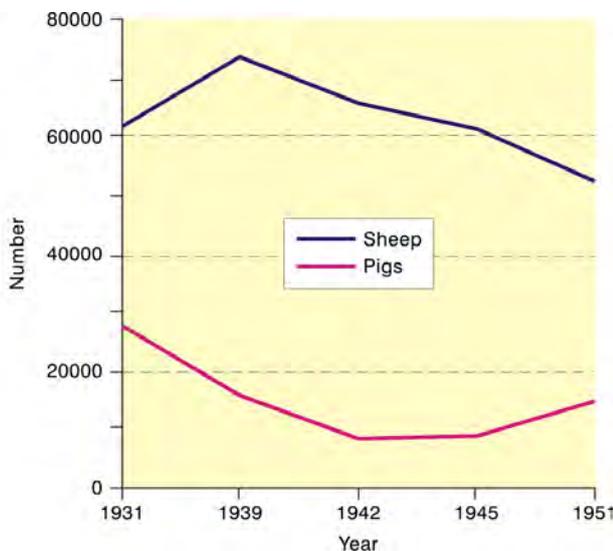


Source: TNA MAF68, MAAF, 1968:124.

Pigs

Pig numbers experienced something of a collapse through to the middle of the war. From a high of 27,957 in 1931, numbers had fallen to 15,694 by the start of the war, almost halving over the next three years to 8385 before recovering slightly by 1945 and then increasing significantly by 1951 (see Figure 10). This dramatic decrease seems linked most closely to the difficulties of obtaining feed at a time when foodstuffs were being diverted for human consumption. Howkins (1998: 85) provides evidence for this for both pigs and poultry from a Mass Observation respondent in Sussex.

Figure 10: Sheep and pigs in North East Lancashire, 1931–51.

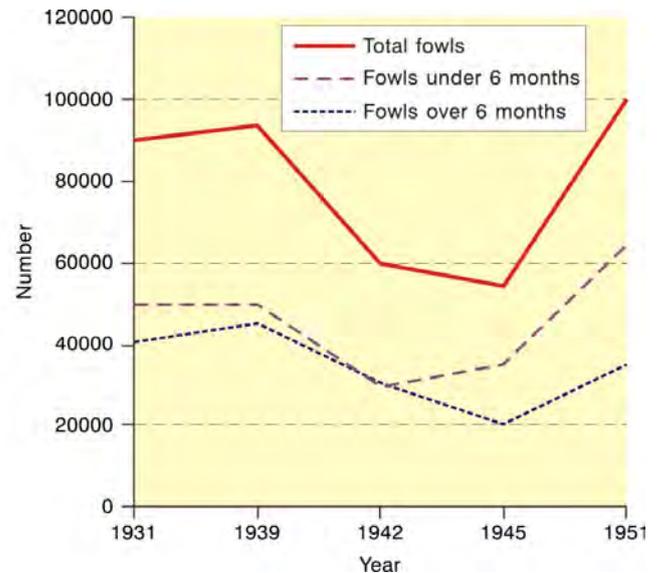


Poultry

In terms of the national picture, poultry production was very important in Lancashire as a whole, a feature which applied equally in the NE District. The total number of poultry dropped dramatically during the war before significant increases in the immediate post war period (see Figure 11). In February 1940, the Clitheroe Advertiser and Times carried the somewhat hysterical headline 'Threatened with extinction: poultry industry condemns government policy.' The principal problem was the lack of feedstuffs which was forcing poultry producers to reduce their stocks; an option which was not straightforward:

'To tell poultry keepers that they would have to reduce their flocks meant that many would be unable to make a living, as many one-man poultry farms carried just enough stock to keep the household together.' (CAT 16th February 1940).

Figure 11: Fowls in North East Lancashire, 1931–51.



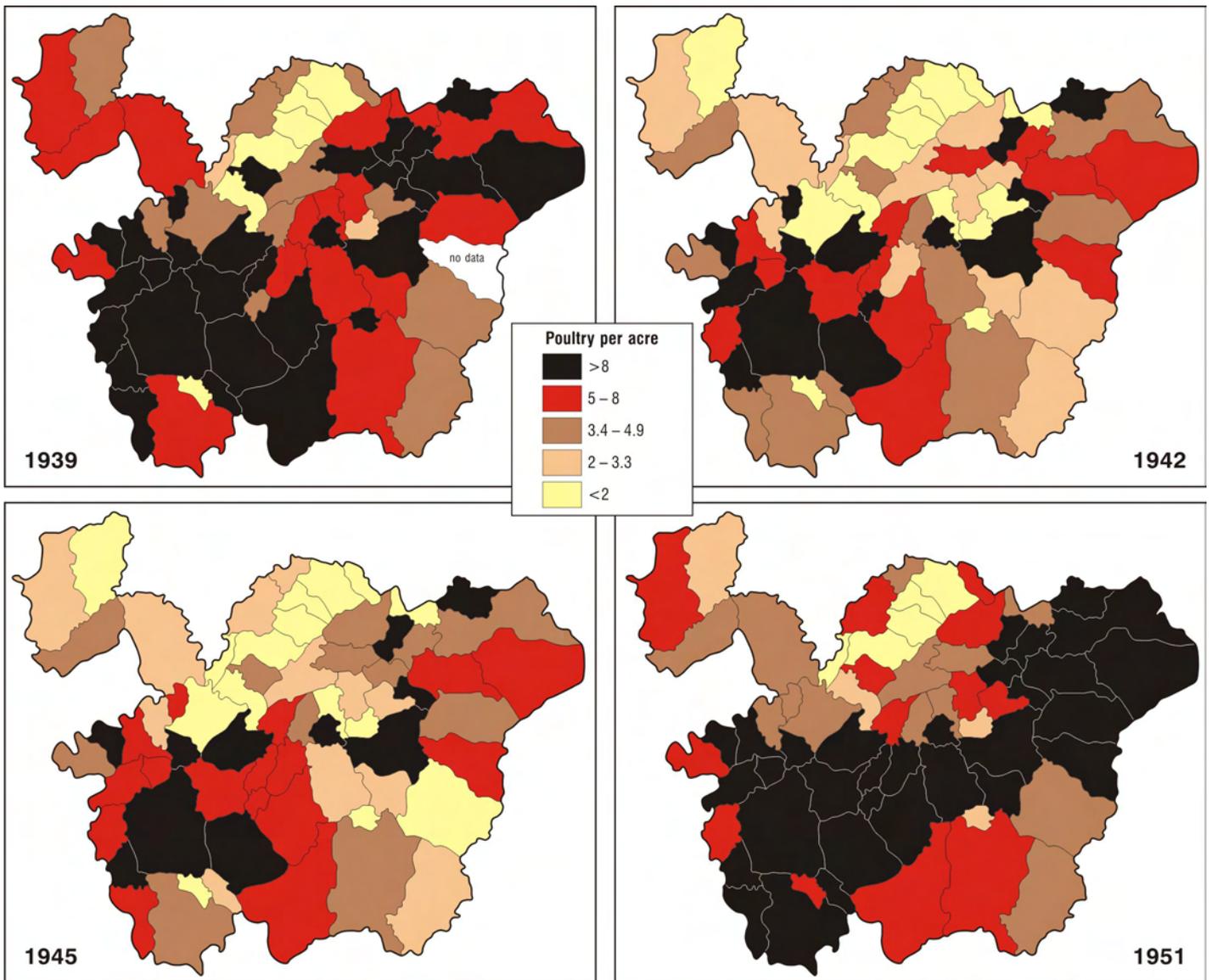
An interesting trend can be noted in terms of proportions of young birds (principally reared for meat) and older birds (for eggs), whereas most years showed more young birds than older birds, and indeed by 1951 there were almost twice as many young birds as older ones, in 1942 the number of older birds slightly exceeded that of younger birds, a reflection of the relative profitability of eggs during the early years of the war. Figure 12 shows the distribution of poultry during the period under consideration.

The overall decline in livestock numbers can be explained largely in terms of the severe reduction in imported feedstuffs that occurred from the onset of the war. Government policy prioritised the maintenance of milk production, followed by fat cattle and sheep, with the Food Policy Committee announcing in May 1940 that:

- (i) our first aim should be to avoid any appreciable diminution in the output of milk
- (ii) the production of fat cattle and sheep should be maintained as far as is consistent with (i) above
- (iii) any necessary economies of imports of feeding-stuffs should be made at the expense of cereals required for pigs and poultry. Steps should, however, be taken to mitigate as far as possible the very serious hardships involved to large numbers of specialist producers, particularly of poultry, if the reduction in cereal imports required were of a substantial character. In any event every effort should be made to maintain an adequate nucleus of pig and poultry breeding stock

(cited in Murray, 1955: 80).

Figure 12: Poultry per acre in North East Lancashire, 1939–51.



The provision and relative scarcity of feedstuffs dominated livestock policy during the early years of the war. In East Lancashire dairy production was seriously disrupted by the cuts in imported feedstuffs, the manurial residues of which had enabled heavily stocked pastures on poor soils to be kept in fair condition. These were producer-retailers supplying the large towns who purchased most of their feeding stuffs, bought either in-calf or freshly calved cows for milk production and sold their whole output as liquid milk. These problems were partly resolved by government assistance in 1942-3 when expenditure of up to £20,000 as grants towards the cost of re-seeding 6,000 acres of small upland farms was approved to enable farmers to produce a greater amount of their own feedstuffs (Murray, 1955: 195-6, 260).

The post war situation

After the war, the pre-war pattern of land use rapidly re-asserted itself, despite the very different economic climate and greater government intervention, with livestock resuming its dominance over crops (Mingay, 1994: 251). However, the war years saw methods of farming revolutionised as agriculture entered into its productivist phase, with far higher levels of inputs being applied to the land and a greater adoption of science and technology resulting in much greater levels of production per acre. Thus while the 1951 land use maps show a clear correlation with the 1939 maps, the nature of farming itself had been transformed during the war, a process which was reinforced by the 1947 Agriculture Act paving the way for a new era of subsidy, price incentive and higher incomes for farmers (Short, 2007: 237).

Acknowledgements

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Footnotes

1. For an overview of the workings of the CWAECs, see Short (2007). For discussion of the workings of the Lancashire War Ag see Green (1943, 1944). The CWAECs remained until they transformed into County Agricultural Executive Committees under Part V of the Agriculture Act 1947 (Short, 2007: 238).
2. For a discussion of farming in South West Lancashire during the Second World War see Rawding (2003).
3. Prior to local government reorganisation in 1974, much of the Bowland district was in West Yorkshire, the Clitheroe and Bowland branch of the NFU therefore straddled the two counties, with some of their discussions relating to the Lancashire War Ag and other parts to the Yorkshire War Ag.
4. For a discussion of silage in the Peak District see Riley (2006).
5. To maintain clarity in the text, specific piece references to the MAF68 volumes have not been cited. The county returns in The National Archive are listed below for the period under study: TNA MAF68/

1931	3571	1941	3982	1944	4093
1939	3908	1942	4019	1945	4130
1940	3945	1943	4056	1951	4352

6. The categories for each of the map sequences has been based on the distribution of values in 1942, enabling a more effective study of change during the war years to be achieved.
7. For a detailed discussion of government livestock policy during the war see Murray (1955: 78-81, 115-122, 156-158, 184-188, 207-208,).
8. The Hutton Institute of Agriculture became the Lancashire College of Agriculture in 1967 before becoming Myerscough College in 1993.

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