

ISSN 1476-1580



North West Geography

Volume 3, Number 1, 2003

Agricultural practices and state intervention during the Second World War: a case study of South West Lancashire

Charles Rawding

Department of Geography, Edgehill

Email: rawdingc@edgehill.ac.uk

Abstract:

The onset of war resulted in massive state intervention in agriculture to secure adequate food supplies. Draconian powers were used to control agricultural production. This article looks at the effects of these policies in South-West Lancashire by analysing the extensive archives related to the National Farm Survey and the work of the Lancashire War Agricultural Committee.

Keywords:

South-West Lancashire, War Agricultural Committee, National Farm Survey, state intervention.

This paper investigates agricultural practice and change during the Second World War with particular reference to South-West Lancashire. The onset of war resulted in the County War Agricultural Executive Committees (CWAECs) being given enormous powers under the Defence Regulations in order to increase food production. They could take possession of land, requisition property, enter upon and inspect land and direct the cultivation of agricultural land. The main day-to-day activities of the CWAECs were to encourage good agricultural practices, as well as allocating ploughing quotas, distributing ploughing subsidies, tractors and other equipment, liaising with the armed forces, encouraging land drainage and overseeing issues of labour supply (see Short *et al.*, 2000). Matless (1998) has pointed out that not all farmers accepted such an agenda during the 1930s, however such niceties were swept aside by the onset of war. Furthermore, the perceived success of these policies formed the basis for much post-war state intervention in agricultural production.

For administrative purposes, the county of Lancashire was divided into nine districts by the CWAEC (Fig. 1). This paper focuses on district No 7 (Fig. 2) which covered the area from Liverpool eastwards to the east of Warrington in a belt about 10 miles (16 km) wide along the north bank of the River Mersey. In particular the results of the National Farm Survey (NFS) and the workings of the district committee will be analysed.

The Land Utilisation Survey of Great Britain (1931-1938) provides an overall picture of agricultural land use in the period prior to the Second World War (Stamp, 1948;

see also Rycroft and Cosgrove, 1995). In the case of Lancashire, the survey had been all but completed by the end of 1933 (sheet 35). The area of south west Lancashire had a much higher concentration of arable land than most of western England. Stamp suggested that 'the excellent soils and low rainfall ... explain the dominance of ploughland here.' Indeed, he went further, describing 'some magnificent soils including the fine land, rich in organic matter, derived from the drainage of the old mosses. With its centre round Ormskirk, this is one of the great potato growing areas of England and the 27,963 acres of crop potatoes (1939) represent 7% of the English total and the proportion of first earlies is almost the same. Brassica crops, lettuces, celery and peas are also noteworthy.' (Stamp, 1948, 141).

Before the war, the total land under cultivation in Lancashire was 680,000 acres (275,200 ha), of which 26.5% was under arable. The arable land was concentrated in the south west of the county. In the inter-war period, in common with the rest of the country, arable acreages in District No 7 fell by 11% over the period 1918-1938 resulting in the loss of 5,662 acres (2,290 ha) of cropland. Nevertheless, District No 7 remained predominantly arable with 74% of the total agricultural land under crops.

The arable farmers in these areas relied on the farmyard manure produced on the dairy farms and in the towns to maintain soil fertility. This was particularly the case for the potato growers. (St Helens Local History and Archive Centre [hereafter SHLHAC] LEG 86/3) The farming was also labour intensive, with 70 workers per 1000 acres (405 ha) compared to a UK average for mixed farms of 25.



Fig 1. Lancashire War Agricultural Committee Districts

Norfolk arable farms had in the region of 33 workers per 1,000 acres while a Lincolnshire potato farm might employ 62 workers per 1,000 acres (South West Lancashire, 1930, 25).

There were significant variations in the agricultural land of the district, poorer land was found on the outskirts of the towns, but the rest was considered to be extremely rich. The moss at Rixton was used for intensive market gardening, the coal measures of St Helens and Bold

produced heavy but valuable land although farmers did face problems with subsidence and related drainage difficulties. Between these two areas, the light sandy soils of Warrington district were close to a large population providing a ready market for crops and milk.

Prior to the war, mixed farming with a concentration on milk, potatoes and vegetables was prevalent. Dairying was characterised by good herds and excellent levels of production. Shorthorn, Ayrshire-Shorthorn cross and some

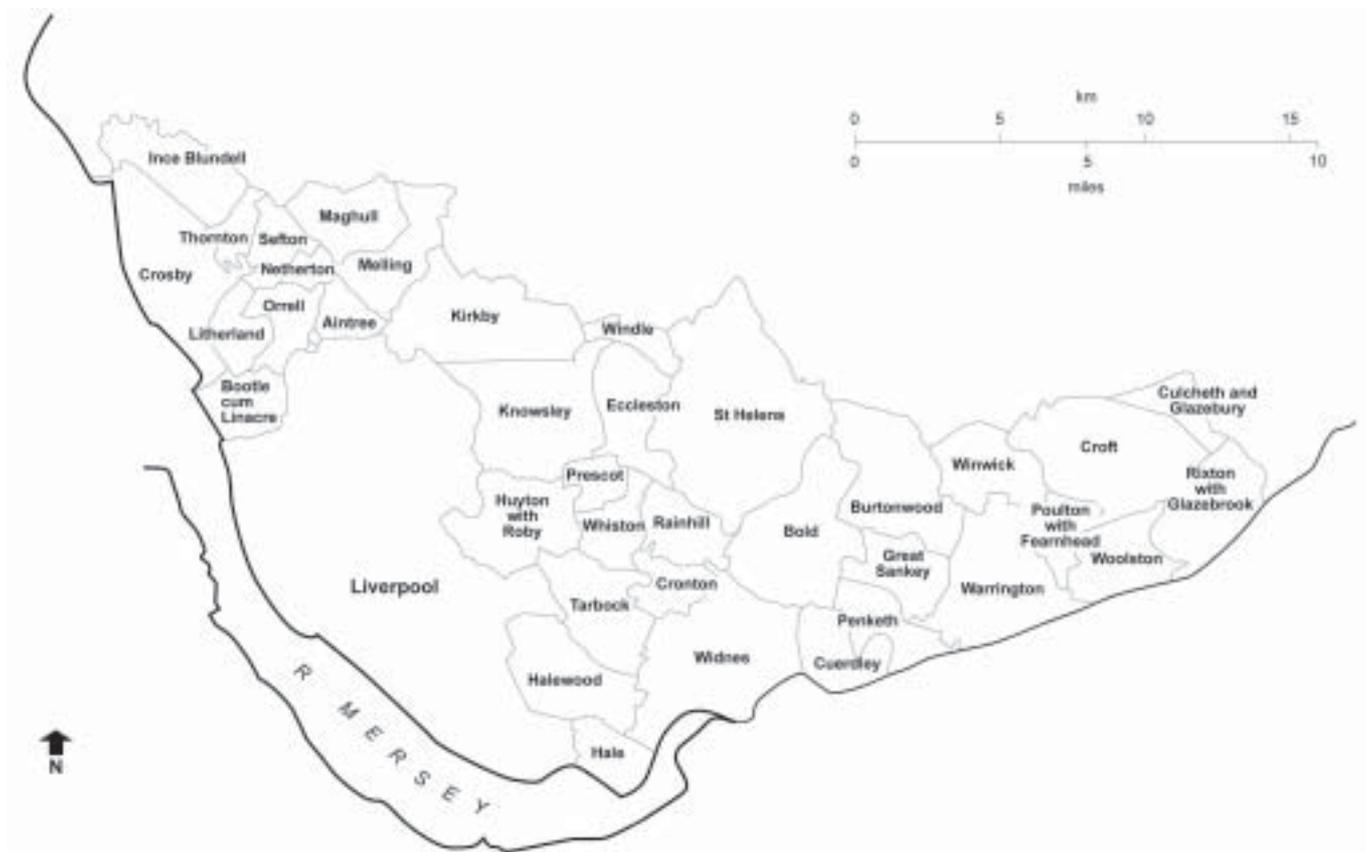


Fig 2. Lancashire District No 7

Friesians were kept. Very few sheep were kept on the farms. Pigs had been kept fairly extensively before the war, but there was a big fall in numbers from 1940 as a direct result of government policy. A change of policy in 1944 stimulated increased numbers of pigs. Poultry were found in large numbers in some parishes.

In the arable rotations, wheat was most important, along with oats which were used as a feed for stock. Plenty of potatoes were grown in the Warrington area, but not as many as in the Ormskirk district. The use of the ley system with a significant time between potato crops meant that unlike some nearby areas, there was little evidence of eel worm.

The market gardens on the moss (Rixton) produced good yields of lettuce, celery, onions, cabbage and peas for market. Around Ormskirk, peas were also produced for canning. Ploughs were found on every farm, but District No 7 was not as heavily mechanised as the Ormskirk area to the north. Farms were smaller and the horse was still dominant. Indeed, the area was a big customer for horses bred to the north of the Ribble. The farms, for the most part, were highly productive and well managed, with farmers being praised in the press and by the government. (Preston Guardian [hereafter PG] 8th July 1944).

The first and most obvious effect of the war was to increase production dramatically. Nationally the area under crop cultivation increased from 28% to 48% of the total farm acreage between 1939 and 1944, while temporary grasses increased from 8% to 12%. Land under permanent grass fell from 64% to 40%. The number of dairy cattle grew by 12%, while milk sales increased by 36%. At the same time, the acreages of all the principal crops grew, particularly during the years 1939-43. The acreage of vegetables, excluding potatoes, grew from 247,741 acres (100,260 ha) in 1939 to a five year average for the years 1941-45 of 394,485 acres (159,650 ha), an increase of 59%. Livestock numbers, on the other hand, fell slightly for both sheep and pigs as land was switched to crop production. (SHLHAC LEG 81/1) This increase was in marked contrast to the overall decline in arable land that had occurred over the preceding 20 years as UK agriculture experienced a period of prolonged economic difficulty. Policies with regard to specific crops varied slightly during the hostilities. However, the policy of paying £2 per acre to plough up permanent grassland (defined as at least 7 years old) produced an immediate response from farmers during the summer of 1939 as the government sought a target of 2 million extra acres (810,000 ha) of arable land for the 1940

season. Further expansion took place in the autumn/winter of 1940-41. At the same time, a system of fixed prices was introduced which would last until the end of the war. (Short *et al.*, 2000, 32-7)

The designation of milk and potatoes as priority crops as part of the war effort led to increased production, the ploughing up of grassland and the encouragement of ley farming. Greater attention to drainage and ditches, taking advantage of government schemes also increased production along with the use of the lime subsidy (PG, 8th July 1944).

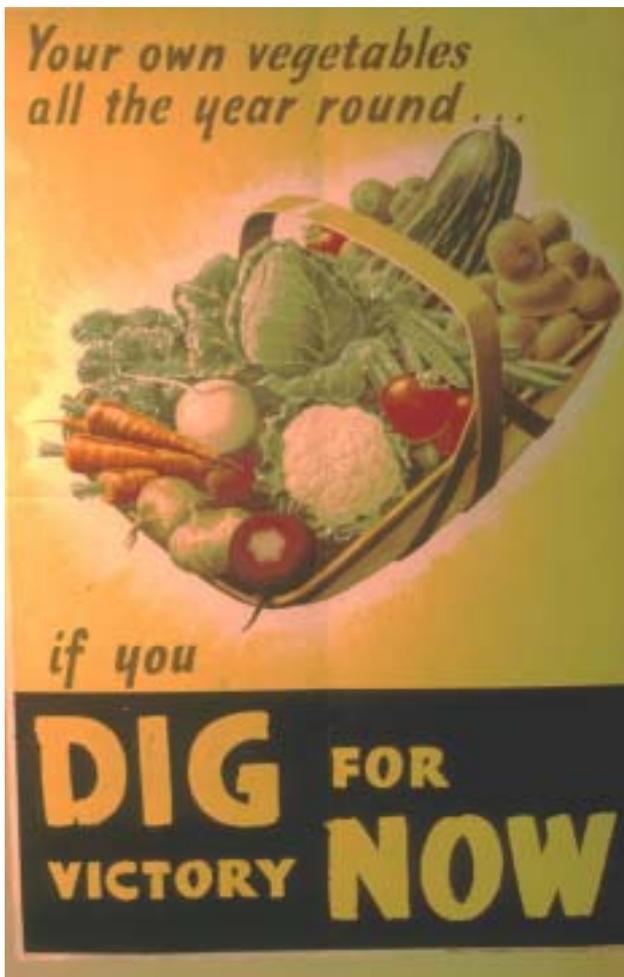
Farmers were not the only ones expected to contribute. As early as October 1939, the RSPCA was told to plough up 43 acres (17 ha) of grassland that it held in the district. Similarly the owners of land used by Garston Cricket Club were served with a cultivation order. Indeed, every available parcel of land was investigated including the grass verges on the East Lancashire Road which were required for cattle fodder. (SHLHAC LEG 86/1, 86/3)

An initial survey of farms was carried out to assist the plough up campaign, followed by a further survey which began in June 1940. (Short and Watkins, 1999, 14) This survey confirmed the primacy of the south-western part of Lancashire in terms of arable production - District

No 7 along with District No 6 (the Ormskirk area to the north) provided 56% of the total arable acreage of Lancashire in 1940. (PRO MAF 38/213) Out of these initial surveys developed the idea for a complete National Farm Survey (NFS) which was intended to form 'a permanent and comprehensive record of the conditions on the farms of England and Wales at the time of recording - compilation of a modern Domesday Book - the ultimate intention being to place the records and maps in the PRO [Public Record Office].' The survey could then be used to assist in post-war planning, advisory and educational work. The NFS was carried out under the auspices of the CWAECs by the district committees of the county (Short and Watkins, 1999, 1-14).

The National Farm Survey of 1941-3 provides an unprecedented wealth of data on British farming practices at the time as well as shedding light on the range of policies introduced during the Second World War to boost agricultural productivity. The NFS provides comprehensive coverage of farming practices and when combined with information gathered by the Ministry of Agriculture War Committees, a very detailed picture of farming at the time can be obtained. The NFS provides five different sets of data for each holding of 5 acres (2 ha) or more. The first four sets of data are contained within PRO MAF 32. First, a primary return provides detailed information for each farm relating to tenure, the condition of the farm, water and electricity sources, and, more controversially, management, which was graded A, B or C. Second, the census return, the 4th June 1941 return is the only census for which such information has been released on a farm-by-farm basis rather than as a parish summary. Third, the horticultural return provides additional details on fruit, vegetables, flowers and crops grown under glass. Fourth, the Supplementary Form provides information on labour, motive power, rent and length of occupation. Finally large-scale maps to plot field boundaries and fields are held in PRO MAF 73. (Short and Watkins 1999, 16-17; Short *et al.*, 2000, 41-80)

As part of the initial survey of farming, prior to the National Farm Survey, all agricultural holdings were classified A, B or C by the District Committees. A farm classified as category A was considered to be operating at over 80% of its maximum production, B at 60-80%, and C at less than 60%. Farms which were categorised as A or B were not reinspected. However farms graded as C received additional visits from the district committees. This survey of all the farms had been carried out by mid-1940 with a summary being sent to the Ministry.



At the level of the whole county of Lancashire, 51.1% of farmers were graded A, 31.9% graded B and 4.8% graded C (see Table 1), while the remainder were not classified or in a very few cases classified indeterminately as A/B or B/C. Districts 2 (Lancaster) and 3 (The Fylde) show the highest proportions of A graded farmers after the initial surveys, with the arable districts 6 (Ormskirk) and 7 (SW Lancs) coming next. The relatively poor showing of district 5 (East Lancs) can be explained by its altitude, while district 8

(Wigan-Bolton) was an area of encroaching industrialisation and colliery subsidence (see Fig. 1). (PRO MAF38/213)

At a general level, it is clear that there was a fairly close correlation between the grading a farmer received and the quality of the land he was farming. Quality of land was graded 1 (good), 2 (moderate) or 3 (poor). Three-quarters of all A grade farmers were on good quality land, whereas only 1.6% of grade A farmers were on poor quality land (Table 2). A grade farms also tended to be the largest farms in the district (Table 3).

Table 1: Grading of farmers in Lancashire.

District	A	%	B	%	C	%	UN	%
1. Furness	337	46.2	185	25.4	20	2.7	187	25.7
2. North	626	75.4	162	19.5	32	3.9	10	1.2
3. The Fylde	1052	73.6	152	10.6	44	3.1	181	12.7
4. Preston	618	49.4	465	37.2	38	3.0	129	10.4
5. North-east	455	29.9	752	49.4	109	7.2	205	13.5
6. Ormskirk	944	63.3	331	22.3	57	3.8	159	10.6
7. South-west	388	55.8	174	25.1	26	3.7	107	15.4
8. Wigan-Bolton	466	32.2	699	48.3	122	8.4	161	11.1
9. Manchester	334	40.7	338	41.2	45	5.5	103	12.6
Total	5220	51.1	3258	31.9	493	4.8	1242	12.2

Source: MAF 38/213 Farm Survey: summarised reports in reply to circular letter serial no 416, classification of farms.

Table 2: Farm gradings by category of land.

A Farmers

Grade	1	%	2	%	3	%	Unclassified	%
No 7	291	75.0	89	22.9	6	1.6	2	0.5
County	3158	60.4	1487	28.5	87	1.7	488	9.4

B Farmers

Grade	1	%	2	%	3	%	Unclassified	%
No 7	33	19.0	131	75.3	10	5.7	-	-
County	352	10.8	2230	68.5	346	10.6	330	10.1

C Farmers

Grade	1	%	2	%	3	%	Unclassified	%
No 7	6	23.1	7	26.9	10	38.5	3	11.5
County	46	9.3	127	25.7	266	54.0	54	11.0

Source: MAF 38/213 Farm survey: summarised reports in reply to circular letter serial no 416, classification of farms.

Table 3: Average acreage of farm worked by different categories of farmers in District No 7.

Grade	A	B	C	Average
Acres	86	65.5	70.5	72
Hectares	35	26.5	28.5	29

At Aintree, on the suburban fringe of Liverpool, the racecourse (200 acres; 81 ha) was the only farm not to be categorised as grade A. It was classified B with the observation 'Races first, farm takes second place, should feed more cattle in racecourse looseboxes.' In fact, the racecourse kept no cattle at the time of the survey, grazing 79 acres (32 ha) of arable and keeping the remainder of the land under grass with a flock of 15 lambs and 15 pigs - hardly intensive use of over 120 acres (49 ha) of pasture (PRO MAF 32/521/189).

The district committee was made up of local farmers (see Table 4). Murray, in 1955, stated that these were the 'progressive leading tenant farmers and farming land-owners' who he regarded in heroic terms:

'It is impossible adequately to describe the devotion behind the long hours spent in visiting farms, field by field, by day and by night, in all seasons of the year; the infinite patience required in cajoling reluctant farmers to change their systems, and often, in surmounting the suspicions and criticisms with which some farmers greeted the advice of their neighbours; the determination required to overcome the tedium of committee work and the weariness of form filling and report writing added to the continuous labour of running their own business.' (cited in Short *et al.*, 2000, 31)

It was at the district level that much of the day-to-day business was conducted. For instance, the district committee arranged changes of tenancy, issued cultivation orders, contacted landowners and liaised with the military

authorities and, through the county committees operated on behalf of the Ministry of Agriculture. In 1939, No 7 district was given the task of securing an extra 40,000 acres (16,200 ha) of land for cultivation. Ploughing orders were issued (see Table 5) and only land that was satisfactorily ploughed and likely to produce an adequate crop was eligible for a grant (SHLHAC LEG 86/1).

Category C farms and farmers

Farmers who failed to perform satisfactorily ran the risk of losing their land. Tenancies were terminated or the agricultural committee took possession of the land. The minutes of the agricultural committees list farmers whose land was considered to be badly farmed and make recommendations to terminate tenancies (SHLHAC LEG 86/2). The farm surveys highlight a range of problems that faced government officials whose brief was to maximise production. For instance, an inspection of Jollies in the Dean Farm, Upholland, owned by Winstanley Estates, was very critical of the tenants, yet also pointed out that there was no water in the farmhouse. The farm's water was 'drawn from a well down the field and carried to the house.' The report questions whether the farm would be easy to re-let (SHLHAC LEG 86/3).

However several of the surveys illustrate the difficulties of applying a purely productivist agenda to

Table 4: The composition of the original No 7 District Committee.

John Almond	Buckley Hill, Sefton
J. Hamilton	Etworth Villa, Scotts Road, St Helens
T. Peters	Dukinfield, Glazebury, Manchester
T. Norcott	Fingerpost Farm, Burton Woods, Warrington
J. Rimmer	Roby Farm, Huyton
W. B. Nicholl (technical adviser)	Hutton
C. H. Clark (secretary)	Leigh Estate Office, Newton Le Willows

Source: SHLHAC LEG 86/7

Table 5: Ploughing orders in No 7 District, 1939.

Parish	Farms	Acres	Ha	Required cultivation
Burtonwood	9	180	73	Oats / potatoes
Penketh	3	54	22	Oats / potatoes
Poulton with Fernhead	5	21	9	Oats
Great Sankey	12	202	82	Oats / potatoes
Warrington	1	23	9	Oats
Winwick with Hulme	2	11	4	Oats / potatoes
Woolston	1	8	3	Oats

Source: SHLHAC. LEG 86/1

judgements on farming. Almost as a throwback to an earlier age, Home Farm at Ince Blundell was 'farmed principally for the Hall and not for someone to make a living.' (PRO MAF 32/549/193) On the urban fringe and in rapidly suburbanising areas, farmers were experiencing real problems sustaining productivity. In the Liverpool returns, on Lower Finch Farm, West Derby, a 135½ acres (55 ha) holding, the assessor comments: 'This farm is so badly trespassed it is impossible to farm it properly', while J. Newsholme's 7½ acre (3 ha) holding in the same area, an exasperated assessor stated; 'This man is in the middle of a built-up area.' (PRO MAF32/553/280) In Widnes, the combination of urban fringe and wartime activity proved crucial. 'Fences broken down by building of air raid shelters resulting in children using pasture as a playground preventing him applying fertilisers.' (PRO MAF32/579/385) At Crosby, the land was 'badly trespassed...Farmer does his best under difficult circumstances.' (PRO MAF32/536/192)

War preparations and activities themselves were a serious impediment to agricultural production, ten of the B/C grade farmers had problems as a result of the Ministry of War. At Maiden Bower Farm, Knowsley, the farmer 'seems to have lost interest in his farm since crops were trampled and spoilt by surveyors etc.' (PRO MAF32/536/192) In several parishes land was taken over by the Air Ministry. Liverpool's civil airport at Speke was requisitioned in August 1939, and military airfields were opened at Burtonwood in April 1941 and Knowsley Park in late 1941 (Delve, 2001).

At Beech House Farm, Warrington, urban sprawl and military requirements proved a powerful combination: 'derelict land apparently due to intrusion of defence works making field inaccessible after it had been partly cultivated. Has also lost land to building estate.' (PRO MAF32 577/443)

At Ford Farm 'Military closed a bridge preventing Mr Carter from getting to 9 acres [3.6 ha] of grassland. Fields also trenched.' (PRO MAF32 540/191)

In addition, farmland might be requisitioned by the military authorities as at New Hutte Farm, Halewood where a tank trap was constructed at the western end of the farm and about 4 acres (1.6 ha) taken and wired off from the tenants. (SHLHAC LEG 86/2) This farm also suffered significant war damage which was a problem particularly



in those areas close to the industrial targets along the Mersey. A survey of the farm in November 1940 notes one field 'damaged badly by five large bomb craters - not filled in', along with two further fields with bomb craters and one 20 acre (8 ha) field where the farmer 'intended to plough for wheat but prevented by twelve large bomb craters.' (SHLHAC LEG 86/2). This 138 acre (56 ha) farm was tenanted from the London Midland and Scottish Railway by three brothers in their fifties. The district committee recommended termination of the tenancy on the basis that; 'the only fields that could be called at all reasonable are a few close to the building. All the outlying fields are badly neglected.' However, a subsequent report by two land agents, Messrs Clark and Williams, was more sympathetic noting that 'they are like a great many other people quite unable to cope with the task of filling in the craters and the landlords might be asked to assist by approaching the Military Authorities to carry out this work.' In fact the Railway Company told the Agricultural Committee that filling in the craters was the job of the tenants (SHLHAC LEG 86/3). The report notes: 'It seems significant that the Railway Company purchased a block of land in this neighbourhood (including New Hutte Farm) just before the War. 'The purpose of this purchase is, of course, not known, and it may well be difficult to find another tenant who would take the farm if, as is reported, it may be developed in some way by the Railway Company when the war is over.' (SHLHAC LEG 86/2)



While most of the concerns related to agricultural production, there were also strategic concerns. Farmers were told to avoid pasture land with a straight run of 440 yards (400m), and to avoid arable fields of similar lengths to reduce the likelihood of invasion. To counter the threat of landings by enemy aircraft, they were told to dig trenches, plant thick poles or trees and to place obstacles at irregular intervals across their land (SHLHAC LEG 86/2).

Beyond these issues external to agriculture, there were clearly conflicts in expectations between a government determined to increase output, and farmers steeped in what they considered to be appropriate expertise for their

Table 6: Location of category C farms.

Parish	Farm	Observation
Ford	Twist Farm	Split site, urban fringe including building developments and waste.
Halewood	Boundary Farm	Land scheduled for building.
	Hale Bank Farm	Next to new housing development.
Liverpool	Hall Farm, Woolton	1 year tender from Liverpool Corporation, urban fringe parkland.
Maghull	Manor House Farm	Farms amalgamated, much of land liable to flooding.
Penketh	Woodcroft Farm	Split farm on 2 sites.
Prescot	Hall Farm	Industrial area adjacent to major factory - landowners - British Insulated Cable.
Poulton	Long Barn Farm	By Cheshire Lines Railway.
Rainhill	Wood House Farm	Open countryside close to Sutton Manor Colliery.
	Lawton House	Surrounded by housing development.
Warrington	Land at Latchford	Wasteland - owners Manchester Ship Canal.
	Beech House Farm	Small farm on edge of new housing development.
	55 Long Lane	Next to tannery surrounded by new housing developments.
Widnes	Oakfield	Nursery near new ribbon housing development.
Woolston	244 Manchester Road	Open farmland by the River Mersey, no farmhouse.

Sources: MAF32 Primary returns, MAF 73 county maps.

particular farm. Poultry farmers were frequently mentioned as underachievers. In St Helens, a 5¼ acre (2 ha) holding is marginalised 'this is a poultry farm' (PRO MAF32 568/460), or, more cutting still, in Sefton 'these are poultry farmers' (PRO MAF32 569/201). In Prescott, at least, there was some recognition of the different types of farming where the assessor notes 'this is a poultry farm so laid out for those purposes.' (PRO MAF32 563/381) In Warrington, Throstle Nest Farm (45½ acres; 18 ha) was graded B, with a disparaging comment about the farmer being a horse dealer, followed by the rather contradictory statement: 'The land is not fit for cultivation being rough grazing, only suitable for turning out horses.' (PRO MAF32 577/443)

Many of the farms in category C were faced with a range of circumstances which hindered productivity (Table 6). In several cases, land on the urban fringe was involved; much of this land had already been designated for development, especially on the edge of Liverpool. As early as 1929, Liverpool Corporation bought 2,216 acres (897 ha) of agricultural land in Speke. Planning proposals produced in 1930 suggested an 82% increase in the built-up area, with massive urban and/or industrial development focused in several parishes (Table 7) (South West Lancashire, 1930, 68). The development of Speke began following an Act of Parliament in 1936. (Patmore and Hodgkiss, 1970, 43).

But for the war, far larger areas would have gone under tarmac during the early 1940s (University of Liverpool, 1948). Only the outbreak of war prevented Liverpool Corporation from completing the purchase of the Kirkby Estate, nevertheless a Royal Ordnance Factory was established on 750 acres (300 ha) of former farm land and the remaining farmers in the parish were fully aware of the intended future land use of their farms (Lancashire IDA 1949, 35-6). Indeed the population of the outer districts of Liverpool doubled between 1911 and 1931 and doubled again between 1931 and 1951, with older villages such as West Derby and Woolton being engulfed. In the inter-war period Liverpool City Council built 38,146 dwellings (City of Liverpool, 1952, 34). The planned growth of overspill estates is best illustrated by Huyton with Roby which, in 1931, had a population of 5,200. By 1951, its population stood at 55,800 (Patmore and Hodgkiss, 1970, 25) following its 'invasion ... by Liverpool Corporation housing estates.' (Smith, 1942, 17) In such circumstances, it is hardly surprising that tenants were not prepared to invest heavily during the second half of the 1930s. This was recognised by the South West Lancashire Joint Planning Advisory Committee in 1930 which stated:

'this area, more than most other agricultural areas in this country, is one which, on account of its great value, should be kept open and unencumbered by straggling residential developments - for these developments not only take valuable land out of use, but bring a demoralising influence against the working of the land that is left.' (South West Lancashire, 1930, 43)

Equally, some landowners, such as the railway companies saw their land banks as development opportunities for the new industries which were looking to develop beyond the original industrial core of the cities. Given the overall context, the productivity of farmers in the district can be considered nothing short of remarkable, with nearly three-quarters of farms classified as grade A.

Allotments and smallholdings were also inspected. In the case of the smallholdings of St Helen's Corporation, one certificate of bad husbandry was issued to one of the eleven tenants of the Sherdley Road smallholdings, with a further two certificates being issued on Sutton Heath Road where the holdings concerned were considered 'derelict and covered with weeds.' (SHLHAC LEG 86/5)

Effectively wherever there were any impediments to full-scale agricultural production, the committees were

Table 7: *Development proposals for South West Lancashire, 1930.*

Town/parish	Area developed (acres)	Proposed for development (acres)
Liverpool	18,000	5,550
Bootle	920	300
Crosby	785	850
Litherland	200	250
Speke	-	600
Hale	-	300
Halewood	-	600
Huyton with Roby	300	700
Knowsley	-	725
Kirkby	-	750
Maghull	140	1,100
St Helens/Prescot	1,330	3,800
Rainhill	100	500
Widnes	450	2,150
TOTAL	22,225	18,175

Source: South West Lancashire Joint Planning Advisory Committee, 1930, 68

empowered to act. Thus when Mr Alker of Alder Root Farm, Winwick complained of a flooded field as a result of a blocked culvert under the Sankey Canal, the canal owners (London, Midland and Scottish Railway) were ordered to clear it (SHLHAC LEG 86/1). At the same time, builders were instructed by the land agent at Croxteth to cultivate land they intended to build on (SHLHAC LEG 86/1).

However the decline in the number of horses and cows kept in the towns during the 1930s presented farmers with an increasingly difficult task in obtaining manure. The dramatic increase in ploughland exacerbated an already existing problem. Across Lancashire, by 1941, arable accounted for 43% of the farmland compared to 27% two years earlier. At the same time, livestock farmers were receiving less feedstuffs, thereby reducing manure supply and quality. Shortages of petrol made the transport of manure more difficult and less economic, particularly since the wider spread of arable land meant that manure could be sold nearer to the farm of origin than previously, leaving the largely arable southwest isolated from the system of exchange (SHLHAC LEG 86/3).

By 1941, real concerns were being expressed about the ability of farms to sustain yields under the current cropping regimes. 'It would appear inevitable, in view of the shortage of dung, that the system of farming in southwest Lancashire will have to be considerably modified. The limited amount of manure available from the towns, poultry and pig farms and other sources, will need to be supplemented by manure produced by livestock on the farm. In the meantime until the necessary adjustments can be made the humus content of the soil will have to be maintained by leaving the leys down for two or three years (grazing if possible), by ploughing in clover and rye grass sown with the corn crop, or other forms of green manuring.' (SHLHAC LEG 86/3)

A further problem facing the farmers was the scarcity of labour caused both by the war and by the higher urban wages available in the district. Additional labour was acquired in three main ways; firstly the use of school camps, secondly Italian prisoners of war and thirdly voluntary land clubs, particularly from St Helens. As late as the summer of 1946, Lancashire was allowed to retain 2000 German prisoners of war 'at least until harvesting operations'. (SHLHAC LEG 86/8) The prisoner of war camp at Aughton was not emptied until the autumn of 1946 (SHLHAC LEG 86/2).

Government concerns over agricultural production continued some way beyond the end of the war. In 1945, the Minister for Agriculture (R. S. Hudson) wrote: 'the present year will doubtless show a reduction [in tillage acreage] on 1944 and I had hoped to plan for some further reduction in the area under crops for the harvest of 1946, in order that farmers should have greater scope to ease their labour difficulties, improve cultivations, and grass appropriate on their particular farm to a long-term policy ... however the immediate food position does not allow me to take this course.' (SHLHAC LEG 86/1) Farm prices continued to be guaranteed until at least 1948 as the government was concerned with the deterioration in the world food position and considered it essential to maintain current standards of farming.

Conclusion

This paper has attempted to show how farming in one particular district was changed as a result of the Second World War when government policy objectives shifted dramatically in order to achieve levels of food production commensurate with ensuring an essential food supply for an island under siege. Extensive use has been made of a very rich archival deposit made possible by a level of state interference in agriculture which is inconceivable other than in terms of national emergency. Such an archive provides an invaluable wealth of data for the historical geographer.

References

- City of Liverpool** 1952 *Housing and planning*
- Delve K** 2001 Airfields of the North-West *Flypast* February 61-65
- Lancashire Industrial Development Association** 1949 *Industrial Report No 3. Merseyside*
- Matless D** 1998 *Landscape and Englishness*
- Murdoch J and Ward N** 1997 Government and territoriality: the statistical manufacture of Britain's national farm *Political Geography* 16/4 317-8
- Patmore A and Hodgkiss A G** 1970 *Merseyside in maps*
- Rycroft S and Cosgrove D** 1995 Mapping the modern nation: Dudley Stamp and the land utilisation survey *History Workshop Journal* 40 91-105
- Short B M and Watkins C** 1999 Prelude to modernity: an evaluation of the National Farm Survey of England and Wales, 1941-43 in **Walford N Everitt J C and Napton D E** eds *Reshaping the countryside: perceptions and processes of rural change*
- Short B M Watkins C Foot W and Kinsman P** 2000 *The National Farm Survey 1941-1943; state surveillance and the countryside in England and Wales in the second world war*
- Smith W** 1942 *The distribution of population and the location of industry on Merseyside*
- South West Lancashire Joint Planning Advisory Committee** 1930 *The future development of South West Lancashire*
- Stamp L D** 1948 *The Land of Britain: its use and misuse*
- University of Liverpool** 1948 *New handbook of social statistics: relating to Merseyside*