

# THE SUFFOLK CROP RETURNS OF 1854

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IN 1853, IN THE wake of prolonged agitation by progressive agriculturalists, economists and statisticians, culminating in a deputation from the Royal Agricultural Society of England and the Highland Society,<sup>1</sup> the Government embarked experimentally upon the first widespread collection of agricultural statistics to be conducted on modern lines. A pilot scheme, involving the counties of Norfolk and Hampshire, was in that year carried out, the comparative success of which lent encouragement to the Board of Trade to extend operations to a further eleven counties in 1854. These counties were Hampshire, Berkshire, Wiltshire, Norfolk, Suffolk, the West Riding of Yorkshire, Leicestershire, Worcestershire, Shropshire, Denbighshire and Brecknockshire.

The responsibility for organising the collection was placed on the shoulders of the Poor Law Unions. Printed forms—'Schedule A'—were sent to all occupiers of holdings of more than two acres and from the completed forms statistical block returns for each Union were compiled. The results, arranged by county, were published as the *Reports of Poor Law Inspectors on agricultural statistics, 1854*.

There was not a little opposition amongst farmers, many of whom, as on the occasion of an earlier, less detailed crop survey in 1801,<sup>2</sup> feared that the information so gathered might be the prelude to increased tithe or tax assessment. Others resented what they felt to be an unwarranted interference in their private affairs. Some were too indifferent to make a return, or perhaps felt they had something to conceal.

Less openly expressed was the negative attitude of the Boards of Guardians, Clerks of Unions, Inspectors and enumerators towards the scheme. Remuneration in the Poor Law service was far from excessive and administrators and officials alike could not be expected to take kindly to the imposition of additional unpaid duties. There was some justification for this view, particularly since Dr Kay, a former Assistant Commissioner of the Poor Law, had, in his capacity as Secretary to the Privy Council Committee of Education (1838-49), shown signs of developing the educational activities of the Poor Law Unions. The prospect of yet another Government department, the Board of Trade, imposing new responsibilities upon the Unions was obviously one to be resisted. This attitude is plainly to be seen in the manner in which the Reports of the various Inspectors dwelt on the difficulties encountered in the collection and completion of the returns. Andrew Doyle, the Inspector for Denbigh and Shropshire, was explicit: 'The collection of agricultural statistics by means of the machinery through which the Poor Law is administered is an experiment, the extension or repetition of which I could not recommend in this district' (*Reports, 1854, 77-9*).

Nevertheless Bills were introduced in 1856 and again in 1857 with the aim of initiating an official system of collection of agricultural statistics. Neither received a second reading and it was not until 1866 that the Board of Trade was empowered to obtain agricultural returns through the agency of the Board of Inland Revenue (Coppock, 1956, 17).

## THE COLLECTION OF STATISTICS IN SUFFOLK

Landowners and farmers in Suffolk had observed with interest the progress of the collection of statistics undertaken in Norfolk in 1853 (Dodd, 1976). When it was proposed to extend the experimental collection to other counties, including Suffolk, the influential Halesworth Farmers' Club passed a series of resolutions on the subject at a special meeting on 10 February 1854. Among them was one stating that 'in the opinion of the Club, the collection of agricul-

tural statistics would be a great national benefit' (Walsham and Hawley, 1854, Supplement, p. 5).

The Boards of Guardians of the 18 Unions in Suffolk were ultimately responsible to Sir John Walsham, the Inspector of the Poor Law for Norfolk and Suffolk. Walsham issued 11,520 of the printed 'Schedule A' forms in respect of Suffolk occupiers, by whom the greater part—8,087—were duly filled in. A further 1,714 were completed by official enumerators, leaving 1,719 schedules from which no information was obtained.

Nearly 1,600 of the missing schedules related to four Unions only, those of Cosford, Mildenhall, Samford and Thingoe, which formed a continuous belt of country stretching from north-west to south-east (Fig. 28b). It was here, in west Suffolk, that the core of the opposition to the collection of statistics was concentrated. In the first instance, the Guardians of Cosford and Thingoe Unions refused to co-operate and Sir John had to report that his special statistical agent in Cosford Union 'has . . . been altogether baffled by the hostility which he encountered' (*Reports*, 1854). This feeling spread into the neighbouring Samford Union, which had at first appointed a Statistical Committee. The Inspector considered that opposition to the scheme here was engendered by market-place and market-table discussions (*Reports*, 1854, 35).

In the case of Cosford Union, Walsham received a letter from John B. Geard, the Clerk, dated 17 January 1855, in which he explained the circumstances which prevented satisfactory completion of the returns. He had visited each parish before issuing the 'Schedule A' forms and had been told that most farmers would not make the return. 'There were, however, no particular obstacles thrown in the way of my getting from the rate-books the several occupations, exception that several of the rate-books do not show the quantity of land occupied'. In one instance, at Aldham, the Overseer, Mr Matthews, refused to allow use of the rate-book for this purpose. 'These deficiencies, however, I have been able to supply from other reliable sources'. He received valuable assistance from Mr T. Sexton of Kersey but other influential owners and occupiers, for example at Hadleigh Market, told him: 'We will not make the Returns unless we are compelled. What is the use of them. They won't do us any good'. One gentleman of 'rank and influential position' said he had put his schedule on the fire, and he considered the whole scheme ridiculous (*Reports*, 1854, 41). Faced with such difficulties, Geard obtained approximate estimates of the tillage and stock. '. . . Having tested these by the actual returns, I have been able to furnish . . . an approximate Return, which I have no doubt will not be very far from the actual state of the cultivation, but which, as regards the stock may or may not be correct'.

From Geard's approximation it is possible to map the land use in Cosford Union but not the livestock numbers which are certainly an underestimate. In the case of Samford and of Mildenhall, the discrepancy between the total return and the total acreage within the Union (6,304 acres and 16,847 respectively) is not sufficiently disproportionate to distort conclusions based on the return as made. No attempt has been made to map the livestock details for Samford, as again these are too low to be convincing. Nor has Thingoe Union been mapped, the size of the discrepancy rendering this unwise.

Reading between the lines, it would seem probable that opposition from the farmers of Cosford and Samford Unions sprang from an indisposition to provide information on what were presumably substantial incomes. The returns indicate that farms here were 80% arable and largely devoted to wheat and barley, and with all grains then showing a marked upward trend—the Jevons scale moved from 98 in 1851 to 109 in 1852, 127 in 1853 and 157 in 1854 (Jevons, 1865)—their reluctance is perhaps understandable. The same might also be said of Thingoe Union.

In contrast to the considerable antagonism encountered in the west of the county, the farmers and landowners of east Suffolk proved most co-operative. Sir John noted in particular Blything Union, which 'occupied a conspicuous place among the best of his returns' (*Reports*, 1854, 36). This was hardly surprising in view of the support given by the Halesworth Farmers' Club and the Earl of Stradbroke, Lord Lieutenant of Suffolk, who presided over this Union. Other east Suffolk Unions receiving special mention in this respect were Wangford, Plomesgate, and the Hundreds of Mutford, Lothingland and Hartismere. There was, of course, a fair response from the west Suffolk Unions, other than Cosford, Mildenhall and Thingoe, even where the collection was greatly hampered 'by recent pressure of pauperism' as at Sudbury (*Reports*, 1854, 37). However, there was little sign of the enthusiasm which prevailed in Plomesgate Union, where Mr. Peirson addressed his fellow members of the Framlingham Farmers' Club in a 7,000 word speech commending the scheme.

In spite of the difficulties outlined above, the value and coverage of the returns prove surprisingly good. The area of Suffolk, as stated in the 1851 census summaries, was 947,681 acres. Setting aside Thingoe Union, for which information is too limited to be of value, and the Breckland parishes for which, being within Thetford Union, returns were made in Norfolk,<sup>3</sup> there remains a difference of some 25,000 acres or 2.6% between the total county acreage and the area which the 1854 returns attempted to cover. This is accounted for by those parts of the county which, being of non-agricultural use, did not come within the scope of the survey. These would include the administrative areas of Ipswich and Bury St Edmunds, railways, canals, parks, mud-flats, estuarine marsh, sand dunes and beaches. Of the area covered by the return, there are some 45,000 acres, in addition to the whole of Thingoe Union, for which information is lacking; but (again excepting Thingoe) this amounts to but 5% of the county, and a 95% coverage is remarkably high compared with all subsequent statistics, the Land Utilisation Survey only excepted (Butcher, 1941, Appendix 1). The Board of Agriculture crop returns for 1866, for example, provide information on 740,404 acres and those for 1870 concern 741,511 acres, in each case leaving a deficiency of about 200,000 acres for which details of land use are lacking. Differences of this order continue throughout these returns, so that in 1939, for instance, with a county area of 945,414 acres, the returns total 769,334 acres including rough grazing.

Indeed, in several respects the 1854 returns are superior to other statistical collections. The Board of Agriculture returns, for example, are concerned initially only with land in cultivation. To this, from 1892 onwards, is added rough grazing. The latter appears in the 1854 Returns under the heading of sheep walks and downs, comprising 31,335 acres, a total which, despite the absence of figures for the Thetford Union and parts of Thingoe, still manages to surpass the 1892 figure of 25,885 acres. Woodland is not a feature of the later returns, but some 27,593 acres are shown in the 1854 returns. Allowing for about 10,000 acres in the Breckland contained in Thetford Union, this compares favourably with the 1922 Forestry Commission census figure of 38,443 acres of Suffolk woodland (*Frstry. Comsn.*, 1922). Details of 8,467 acres of common are given in 1854, a figure which compares well with the 1873 Royal Commission total of 7,534 acres (*Enc. Comsn.*, 1874). None of the later returns from any source indicate the degree of urbanisation of the county, although, from those of 1854, we can deduce that about 5% was occupied by houses, gardens, roads and smallholdings under two acres.

#### SUFFOLK REGIONAL LAND USE IN 1854

In his *General view of the agriculture of Suffolk*, published in 1794, the county's own celebrated writer on agriculture, Arthur Young, included a map showing the county divided into five

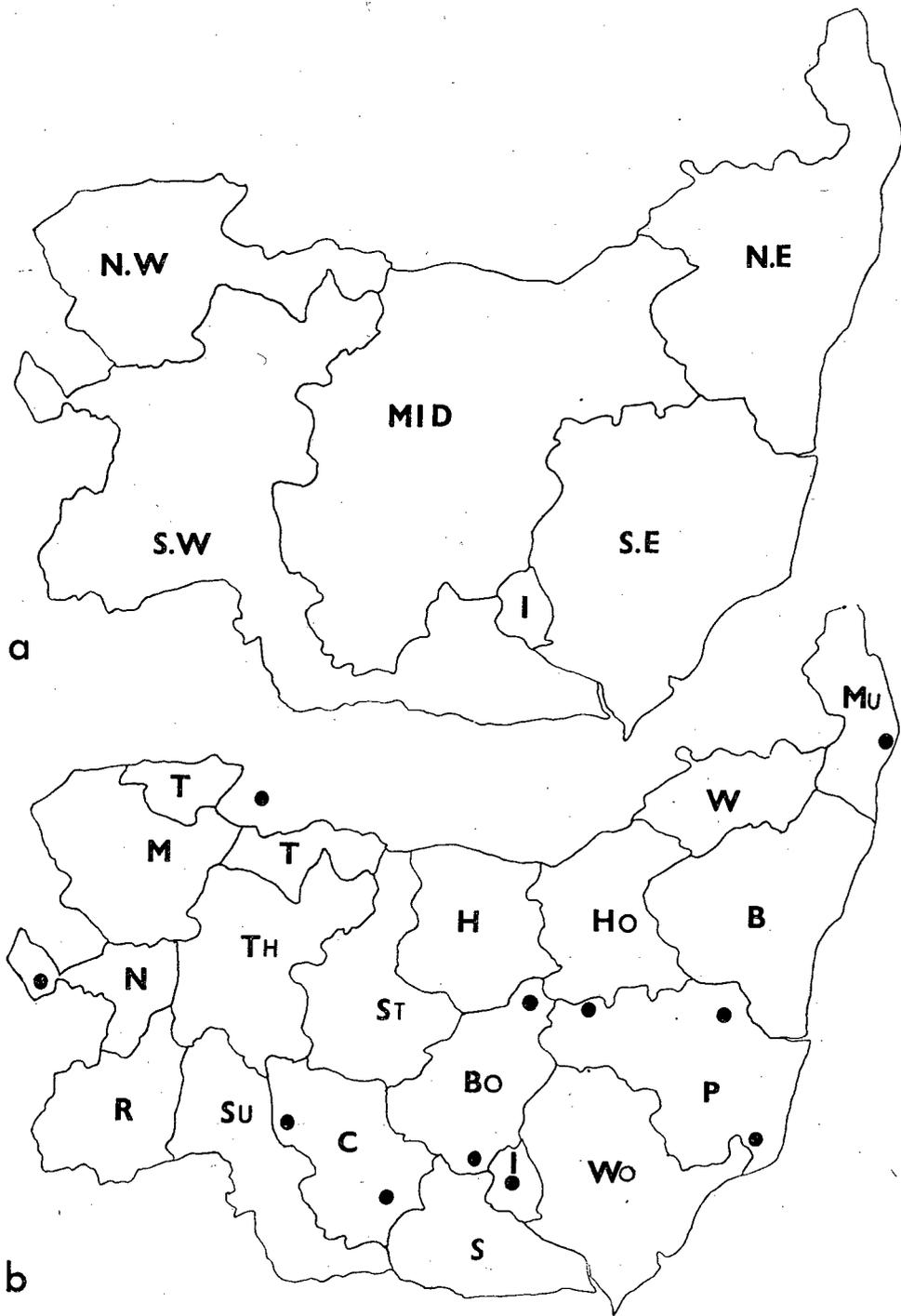


FIG. 28—*a*, agricultural regions of Suffolk as defined in this article; *b*, Poor Law Unions, 1854:

- |               |               |                |
|---------------|---------------|----------------|
| B: Blything   | M: Mildenhall | Sr: Stow       |
| Bo: Bosmere   | MU: Mutford   | Su: Sudbury    |
| C: Cosford    | N: Newmarket  | T: Thetford    |
| H: Hartismere | P: Plomesgate | TH: Thingoe    |
| Ho: Hoxne     | R: Risbridge  | W: Wangford    |
| I: Ipswich    | S: Samford    | Wo: Woodbridge |

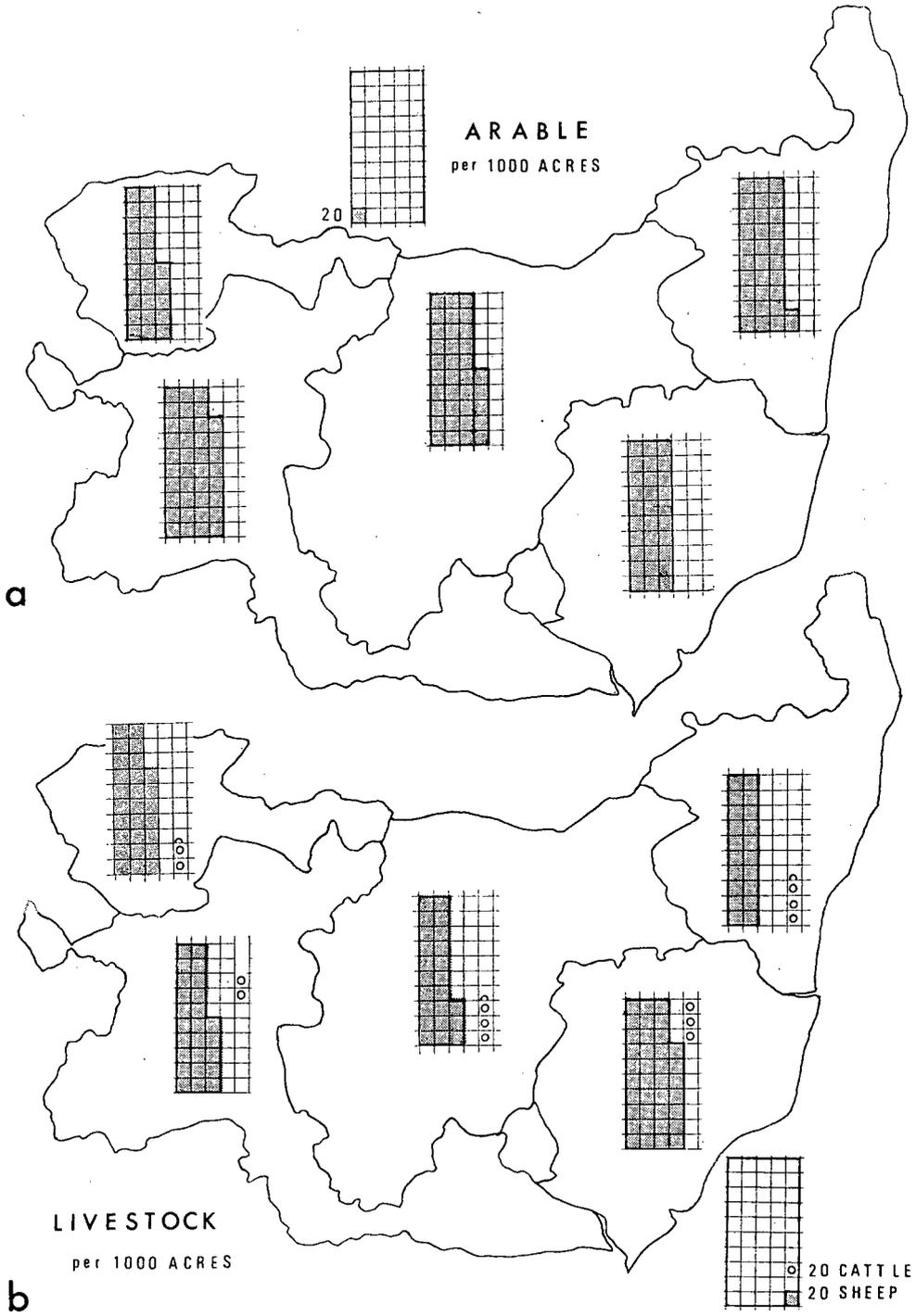


FIG. 29—Regional variations in land use, 1854: *a*, arable acreage; *b*, livestock levels.

soil regions. These were Fen (north-west), Sand (Breckland), Strong Loam (Central Suffolk), Sand (Eastern Coastal Plain), and Rich Loam (south-west of Ipswich). These descriptions still hold good and it is to be regretted that the organisation of the 1854 collection of statistics by Poor Law Unions militates against a regional discussion in terms of Young's soil regions. However the Union areas, except in the instance of Central Suffolk, overstep soil distinctions to such a degree that all that can be done is to present assemblages of Unions as regions which broadly exhibit a common correlation of agricultural emphasis in 1854 (Fig. 28a, b).

The county returns which appeared in the *Reports of Poor Law Inspectors* and which form the basis of this analysis list the following details:

- (i) the names of each Union, the number of parishes in each, and the gross acreage
- (ii) an itemised summary of various crops in tillage, under 14 headings, with a total tillage acreage; the grass acreage given in four categories of clover, lucerne and other artificial grasses, permanent pasture, irrigated meadows, sheep-walks and downs, together with the total acreage in grass
- (iii) six further headings: acreage of houses, gardens, roads, fences, etc., acreage of waste attached to farms, acreage of wood and plantation, acreage of parish commons, acreage comprising holdings under two acres, the number of acres not accounted for; and a total acreage for these six items
- (iv) livestock, listed under ten headings, two for horses, three for cattle, four for sheep and one for swine
- (v) a concluding statement of the number of 'Schedule A' forms filled up by the occupiers, by enumerators, the number unreturned, and the total number sent out for each Union.

Each of these items was also presented in total for each county as a whole.

Although the statistics do not indicate the size of holdings, it has proved possible to evolve a somewhat crude method of estimating average farm size by dividing the acreage embraced by the return for a particular Union by the number of completed 'Schedule A' forms. Admittedly this is an unsatisfactory expedient but it has the merit of enabling comparison to be made between one Union and another.

#### *North-west Suffolk*

Part of this region was included in the Thetford Union of Norfolk and the remainder came under Mildenhall Union. From what has been said earlier of the collection of statistics from the latter Union, it might be thought that these particular returns should be viewed with some caution. Nevertheless, allowing for this and for the fact that the returns are less complete for this Union, critical examination shows that the statistics do not differ unduly from those of analogous areas in Norfolk (Dodd, 1976).

The soils of this region include the fertile silts and alluvium of the north-west which give place eastwards to the light sandy podsoils of the Breckland. From an account of the acreages of the several types of land in Blackbourn Hundred in 1848 (Raynbird, 1848, 146), it would seem that about 31% was mixed clay, loam and chalk, 21% of light soils, 18% of heavy wet land and 11% of upland pasture and sheep walk. Although not entirely coincident, the description is of interest when compared with the land use of the region in 1854. Farms on the whole were fairly large, averaging 136 acres, but a walk across the region would undoubtedly have shown that holdings in the Breckland were much larger, probably averaging 150 acres or more. Correspondingly the Fenland farms in the west were fairly small, perhaps some 50 acres or less.

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Likewise the livestock averages, cattle 50 and sheep 543 per 1,000 acres, conceal the marked differences between east and west. Cattle stocking in the Fenland was probably much higher and with a strong dairy interest but this trend declined eastward and in the Breckland sheep were much more important and probably stocked at about 650 per 1,000 acres (Fig. 29a, b). As in the Breckland (Dodd, 1976), the fattening of cattle was the prime interest and this contrasts with the management of sheep where at least one third of the lambs were sold off by the autumn.

Over the whole region, both Fenland and Breckland, about 50% of the land was arable with temporary grass and wheat as the chief elements in the rotation, each occupying one fifth of the arable. A further two fifths were devoted to turnips, oats and barley, with the proportion of the last two crops varying between east and west, oats being more important in the Fenland and barley in the Breckland.

Table A

		<i>Crops per 1,000 acres of total area</i>					
Perm.	Total	Temp.					Bare
Grass	Arable	Grass	Wheat	Barley	Oats	Turnips	Fallow
95	499	107	101	55	71	77	20
		<i>Livestock per 1,000 acres</i>					
Milch	Total	Total					
Cows	Cattle	Ewes	Sheep	Horses	Pigs		
14	25	285	543	31	47		

As might be expected, this region contained a higher proportion of rough grazing and of woodland than anywhere else in the county. About 31% of the total region could be classed as rough grazing and although the Breckland heaths accounted for much of this, there is little doubt that the poor communications of the Suffolk Fenland were responsible for the lack of improvement of much of the permanent pasture here. Some 6% of the region was in woodland and most of this was certainly to be found in the Breckland. Rearing and fattening were also of importance but the sheep population, at a little under one to two acres, was rather less than that of some other counties, notably Norfolk.

*South and West Suffolk*

This region consists of the Unions of Risbridge, Thingoe, Sudbury, Samford and Newmarket. Soils in the west (Risbridge) are very heavy, being rather tenacious boulder clays, but to the east and south of the region they are more loamy, tending in places to be rather light, according to whether they are derived from the London Clay or from glacial sands and gravels (Butcher, 1941). In the Sudbury area, Arthur Young noted the clayey nature of the soils but thought the land well cultivated although farmers did not fold sheep. Risbridge Hundred was described by Raynbird (1848, 135) as being dominantly heavy land on a clay subsoil and on Young's map is shown as a strong loam. Soils in Newmarket Union are much lighter, being associated with the chalk outcrop, a factor which in 1854 made this the most productive farming area in the county. Thingoe Hundred contained some light and sandy land but for the most part soils were said to be mixed or heavy (Raynbird, 1848, 142).

Some 76% of the whole region was devoted to arable farming and in view of the widespread occurrence of heavy clays and loams, wheat accounted for some 26% of the arable land with barley taking up another 22%. As in Suffolk generally oats were of little importance while no more than 3-4% of the land was left in bare fallow, except in Risbridge and Samford

where the proportion ran to some 11% of the total area. In these areas this was probably the consequence of a greater incidence of intractable heavy clayland, a point reinforced by the larger acreage under beans, 74 acres per 1,000, in contrast to 30 acres on the lighter lands and, midway, 53 on the mixed soils in the Sudbury Union.

There was a fair proportion of lighter land in the Samford area forming part of the sandy belt near Hadleigh described by Young in his farming tour of 1771. This no doubt accounts for the difference in the turnip acreage here at 76 per 1,000 acres of total area, contrasting with the 34 acres on the Risbridge heavy land. Young was impressed by what he saw in Samford, noting that 'they are admirable husbandmen, and have excellent land to work on; they use great quantities of sea ooze . . . composted with their farm-yard dung—and spread on their light lands . . . also spread on the clover lays for wheat' (Young, 1771).

The difference in practice as between the light and heavy land is set out in the following table.

*Table B*

Union	Perm. Grass	<i>Land use per 1,000 acres of total area</i>						Bare Fallow
		Total Arable	Temp. Grass	Wheat	Barley	Turnips	Beans	
Risbridge	121	762	97	205	150	34	77	106
Newmarket	63	838	148	200	205	132	28	48

Like differences were to be seen in the management of livestock, with some areas feeding on their stock and others buying-in for fattening. Cattle were not of any great importance in either Risbridge or Newmarket at 32 per 1,000 acres; the feeding of their own beasts seems to have been preferred. In Thingoe and Sudbury, beasts were obviously bought-in for fattening, the practice being to purchase at the autumn fairs and to sell fat in the March to June of the following year (Raynbird, 1848, 142). The variations are illustrated in Table C below.

*Table C*

Union	Total Cattle*	<i>Cattle and sheep percentage of total stock</i>						
		Milch Cows	Calves	Other	Total Sheep*	Ewes	Lambs	Other
Newmarket	29	41%	28%	31%	796	43%	41%	15%
Thingoe	51	29%	18%	53%	674	20%	58%	21%

\* Per 1,000 acres of total area.

On breeding farms about 80% of the lambs were sold off in the autumn, the remainder being kept to replace unproductive ewes. Lambs were sold at 4–6 months old but where fat sheep provided the emphasis, these were sold at 14 months or at latest 26 months.

Farms varied in size, averaging about 108 acres in Newmarket and Thingoe and about 82 acres elsewhere. Unless all the largest farmers in Thingoe made no return, the statement made by one of Raynbird's correspondents (1848, 143) that the farms there were from 200–600 acres, seems far fetched. However, the sizes quoted by the Risbridge correspondent present a more acceptable view and these process at 50% in farms of 50 acres and under; 14% of over 300 acres, 29% between 120 and 250 acres and 7% at 80 acres. Thus with 57% in farms of 80 acres and under, the 1854 average of 82 acres is not unreasonable.

#### *Mid-Suffolk*

This region, known also as 'High Suffolk', contains the Poor Law Unions of Hoxne, Hartismere, Stow, Bosmere and Cosford. As the region accounts for about 35% of the acreage of

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Suffolk, soils might be expected to vary considerably. According to Young, this was a region of strong loams, which more recent writers describe as Chalky Boulder Clay (Butcher, 1941). The latter, derived from the Gipping Till, was deposited during the advance of ice during the Gipping Glaciation, which spread south across western Norfolk into Suffolk (Larwood and Funnell, 1961, 18-29). Along the western side of the region the drift cover gives rise to lighter but somewhat stony soils. In the northern parts of Stow and Hartismere Unions; soils are brown earths or podsolic brown earths, with gley soils occupying some of the lower ground, as for example around Eye and bordering the Waveney Valley. To the east of Eye, the Gipping Till is productive of thin sandy soils which give place to heavier gley soils derived from the Lowestoft Till (Perrin, 1961, 44-50).

The region in 1854 had 70% of its total area under the plough, the proportion tending to increase southwards, rising to 84% in Cosford Union. As is indicated in the following Table D, crop rotation reflected soil differences, particularly in respect of the significance attached to barley and beans.

*Table D* *Crops and livestock per 1,000 acres*

Area			Temp.		Man-		Total	Total	Pigs	
	Wheat	Barley	Grass	Turnips	golds	Fallow	Cattle	Sheep		
N.E.	196	168	79	70	92	32	43	86	444	175
S.W.	237	194	80	60	79	12	101	56	361	233

In 1846, the loams overlying strong clays in the north-east were said to be growing nearly as many swedes as turnips as well as a fair number of mangolds (Raynbird, 1848, 145). Yields were stated as: turnips 20 tons per acre, swedes 16 tons, and mangolds 25 tons. Swedes appear, however, to have rapidly lost ground by 1854 as the crop was not considered of sufficient importance to be itemised in the returns. Mangolds, in contrast, in the north-east of this region were of greater significance than in most other parts of Suffolk.

Defoe in passing through the region in 1725 described it as 'full of rich feeding-grounds and large farms, mostly employ'd in dayries for making the Suffolk butter and cheese, . . . and a very great quantity of beef, and mutton also, is brought every year, and every week to London . . .' (Defoe, 1959).

Although in 1854 dairying in the region was slightly more important than in other regions, with milch cows representing 42% of the total cattle stock, the evidence indicates a massive decline in the dairy trade since 1725. In his *General View* (Young, 1804), Young stated of the area between Debenham and Earl Soham that in 1804 'there are fewer cows than were kept, by a thousand, ten years ago'. There was a considerable export trade and 'this district furnished London with large supplies of butter, which was considered the first in quality, and the north of England with cheese by ship-loads'. By 1846 the report was that 'the amount produced could scarcely supply the neighbourhood'; in fact there had been so little about in November that in the market, Dorset butter was being sold instead, while 'very few cheeses are made, not even sufficient for home consumption' (Raynbird, 1848, 97).

Raynbird said that few cattle were bred except as replacement of Suffolk stock for milch cows. As calves formed only 23% of the stock in the 1854 returns which were made up in early winter, obviously a lot were sold off either for veal or for fattening elsewhere. Farmers apparently found it more advantageous to 'attend the autumn fairs and markets, purchase short-horns, Scotch or Irish beasts; these are turned out on the rowens, or old grass remaining; and immediately the wet and cold weather commences in October or November, are put into warm yards, and fed with turnips, straw and hay, cut chaff, with meal and cake' (Raynbird, 1848, 119).

Whatever merit may have attached to this system, more progressive farmers were adopting in 1848 the practice of controlled summer grazing associated with 'mowing from the arable-land early in spring, rye, tares and clover, and then grass from pastures, by which plan green food or root is provided through the whole year with other fattening'. Adoption of this improvement probably explains the acreage devoted in this region to vetches—some 22 acres per 1,000—a crop which, as the county average of 12 acres indicates, was little regarded elsewhere.

In respect of sheep management three systems seem to have been employed, two of which were to be discerned from the 1854 statistics. Raynbird stated that in 1848, sheep were (a) 'generally purchased when lambs, and often sold again before Christmas to the light and mixed-soil occupiers for folding on roots' or (b) were 'bought as hoggets in the spring, and sold between October and November' or (c) 'when kept through the winter, it is on a pasture, or in a yard, with cut root, straw and hay chaff, except in very dry weather when a wheat-stubble may sometimes be folded' (Raynbird, 1848, 119). In the western half of the region the correlation between ewes and lambs indicates that farmers here were wintering and feeding their own lambs. However to the east the disproportion between these two elements in the stock, with ewes forming 28% and lambs 49% of the flocks, suggests that a lot of lambs had been bought-in for fattening, these being additional to some 23% which would be sold fat between the following spring and May. Worthy of note is the high density of pigs, usually associated with a strong dairy side; although the latter had declined, the pig breeding and feeding evinced a marked expansion in 1854.

Farms were relatively small on average at about 60 acres except in Cosford Union where the indications (possibly distorted by the number of uncollected 'Schedule A' forms) are of large units of the order of 200 acres.

#### *South-east Suffolk*

Plomesgate and Woodbridge Unions form this region of which the eastern half is commonly referred to as the Sandlings, from the extensive spread of sands derived from the Pliocene Crag and in part from peri-glacial outwash. As the region also had a somewhat chequered history during the Ipswich Interglacial associated with the deposition of marine clays and gravels, soils vary considerably. This is borne out by the comments made by travellers across the region and by other observers. Arthur Young in the course of his farming tour (1771) notes the sandy loams of the Hadleigh district, but within a matter of a few miles at Bramford soils were heavy clay in some parts, in others a good loam and elsewhere a gravelly loam, while Nathaniel Acton farming in the same area found it necessary to apply 50 to 90 loads of clayey marl per acre to his wet clay lands.

Around Saxmundham, the land was all sandy and it is interesting to see how Young picks up the local focus on carrots as a crop. Further south at Capel St Andrew the sands were poor with one occupier trying to farm 4,000 acres, in contrast to which the land at Felixstowe was considered extremely rich. Young further noted the use made of the outcrops of Pliocene Crag, 'a red and white rock almost entirely composed of shells'. This was used much in the same manner as marl, being applied at 10–12 cart loads to the acre.

With the county average of 676 acres in arable, it is obvious that Plomesgate (580) and Woodbridge (611) had less under the plough than other parts of Suffolk, the north-west excepted. In contrast, the acreage of sheep walk, 82 acres in Plomesgate and 98 acres per 1,000 in Woodbridge was greater than elsewhere, the north-west again excepted. With a further average of 33 acres in common and farm waste, there was more grazing available than the acreage of permanent grass might suggest. This stood at 205 acres in Plomesgate with 159 for Woodbridge, while some 84 acres of the arable was in temporary grass.

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The effects of the availability of common and sheep walk was to push up the density of sheep stocking to a point comparable with that of Newmarket.

*Table E* *Livestock in S.E. Suffolk*

Union	Total	Milch			Total	Ewes	Lambs	Other	Pigs*
	Cattle*	Cows	Calves	Other	Sheep*				
Plomesgate	47	47%	30%	23%	716	35%	45%	19%	118
Woodbridge	63	25%	17%	57%	791	34%	39%	26%	119

\* Per 1,000 acres of total area.

In respect of sheep, Table E indicates that lambs were bought in, probably at the Michaelmas fairs and markets, for feeding and fattening on 'oil cake, corn and cut chaff whilst consuming turnips' (Raynbird, 1848, 95). With cattle, the practice in this area was to fatten the early calves for the London market while late calves were sold to Essex farmers as sucklers. This side of cattle management had declined somewhat since the *General View* was written (Raynbird, 1848, 94), as much grassland had been broken up for arable with a consequent reduction in the numbers of cows. By 1848, a reverse trend had set in with calves bought from London for weaning. As far as Woodbridge was concerned the system of buying in Irish, Scotch and other beasts at the autumn markets as stores seems to have been a dominant feature of the economy.

In earlier times, the heavier land to the west and north of Ipswich had been devoted to dairying and in Young's time 40,000 firkins of butter were exported to London annually from the Wivesham district. Both butter and cheese were sent to St Faith's Fair at Norwich but by the time Cobbett visited the area the pattern had changed and he remarked instead upon the great numbers of windmills around Ipswich and the immense quantity of flour sent to London (Cobbett, 1957, 225). By 1848 butter and cheese were being imported, although at Creetingham both dairying and fattening continued. The short-horn cattle apparently still produced sufficient butter to send weekly to London, while calves were fattened for disposal at two years.

Farms, averaging 92 acres, could be regarded as medium large holdings and, as elsewhere, maintained a fair-sized pig population, although somewhat below the county average of 136 per 1,000 acres. Cobbett enthused over the farms around Ipswich being 'so well cultivated . . . the stocks of turnips so abundant everywhere . . . the sheep and cattle in fine order . . . the furrows, if a quarter of a mile long, as straight as a line' (Cobbett, 1957, 225). Young (1804) thought that 'this corner of Suffolk is to be recommended for practising much better husbandry, all things considered, than any other tract of country with which I am acquainted'.

Although the block statistics for the two Unions preclude adequate analysis of the cropping of different qualities of land, some contrasts between the heavier and lighter soils do emerge in the following Table F.

*Table F* *Crops per 1,000 acres*

Union	Rotation						
	Wheat	Barley	Turnips	Grass	Beans	Fallow	Mangolds
Plomesgate	148	130	73	81	66	38	21
Woodbridge	165	135	101	88	64	20	18

*North-east Suffolk*

The region lies to the south and west of the River Waveney and for the most part is flat, low-lying country with a fair amount of alluvial marsh and wet meadow. During the Hoxnian

Interglacial period, lacustrine and estuarine clays were deposited along the western side of the region while towards the east soils are largely derived from the Lowestoft Till. These latter are heavy and even when described as brown earths they contain much gley and peaty soils (Larwood and Funnell, 1961). The coastal strip is one of Boulder Clay cliffs with some gravels, which in parts overlie the Crag. In the southern part of the region there are extensive exposures of sandy land which form the northern extension of the Sandlings.

The effect of these physical factors on land use in 1854 was that between 19% and 27% of the total area was under permanent grass, of which nearly one tenth of the northern half of the region was described as irrigated meadow. Some 80 to 126 acres per 1,000 was in temporary grass and another 70 acres was rough grazing in the form of farm waste, common or sheep walk, while woodland occupied about 32 acres per 1,000 of total area.

The region comprised the area contained in the three Unions of Mutford, Wangford and Blything (Fig. 28) and may best be described as one of smallish farms, averaging 67 acres, devoted to mixed farming. In Young's time, the Southeltham area to the north of Halesworth, with soils derived from the lacustrine clays and silts of the Hoxnian Interglacial period, was described as a great dairy country. Farms kept 40-70 cows and produced butter and cheese, the whey being sufficient to maintain the like number of hogs (Young, 1771). By 1854 times had changed. Dairying activities had experienced a considerable decline and the pig population, similarly, at 112 per 1,000 acres was well below the county average of 136. What is of interest in the former dairying area is the relatively large horse population, which at 62 per 1,000 acres was well in excess of the average of 47 for the county as a whole.

Mutford was fairly representative of the region and, as the following Table G indicates, followed a traditional four course rotation.

*Table G* *Crops per 1,000 acres of total area*

Union	Crops				Bare	
	Wheat	Barley	Temp. Grass	Turnips	Fallow	Beans
Mutford	157	154	126	120	4	27

There were slight differences of emphasis in the rest of the region, turnips and temporary grass taking up about 80 acres each and a correspondingly large acreage of beans, 67 acres, and bare fallow, 47 acres, indicating a greater extent of heavier land. The whole region was strongly committed to fattening bullocks and lambs as the statistics below demonstrate.

*Table H*

Union	Total Cattle*				Total Sheep*			
	Milch	Calves	Other	Sheep*	Ewes	Lambs	Other	
Wangford	66	17%	18%	65%	348	33%	47%	17%
Mutford	79	33%	14%	53%	366	19%	44%	36%
Blything	68	41%	16%	43%	488	39%	45%	15%

\* Per 1,000 acres of total area.

*Ipswich*

Urban areas demonstrably exercise considerable influence on the nature of the farming practised in their immediate hinterlands. This was, in 1854, clearly shown in the case of the county town.

*Table I* *Ipswich*

Arable	Perm.		Temp.				
	Grass	Grass	Wheat	Barley	Turnips	Beans	Fallow
587	216	70	157	134	99	29	45

SUFFOLK CROP RETURNS, 1854

The arable-permanent grass ratio was not markedly different from that of the county at large, differing in this respect from other urban areas. Changes in emphasis were apparent, however, in respect of livestock. The influence of the urban market is reflected in the fact that milch cows formed 75% of the total cattle stock, while, in the case of sheep, lambs represented 47% and store sheep 37% of the total population. Total stocks were 53 cattle, 348 sheep and 120 pigs, per 1,000 acres. The horse density of 58 per 1,000 acres probably arose from the port activities of Ipswich, which called for a considerable amount of horse traction.

Holdings, in conformity with urban patterns, were small dairying units averaging 36 acres, and 81 acres per 1,000 were classified as houses and gardens. Another feature of urban hinterlands, the presence of discrete parcels of land, residual from former farms and estates taken up for development, was to be seen in the 49 acres of land per 1,000 classified as holdings of two acres or less.

*The county as a whole*

Table J

% of county area	Land use in Suffolk in 1854				
	Arable	Grass	Grazing	Wood	Urban
	65	16.7	6.6	4.0	5.0

Table K

*Average density of the chief crops and livestock for 1,000 acres of the county area in 1854*

Acres	Temp.	Wheat	Barley	Oats	Turnips	Bare
	Grass					Fallow
	131	158	131	27	121	8
		Horses	Milch Cows	Total Cattle	Total Sheep	
	Head	43	20	75	650	

Although in 1854 Suffolk had evinced a considerable swing away from the dairying emphasis of the early years of the century, there was a variety in the farming landscape to be observed. Bravender's exhortation (1846) to break up grassland had been taken to heart and much heathland had been enclosed and reclaimed, drains had been laid in the Mutford fenland, the claylands and the Sandlings were under improvement, and new machines and systems were in evidence. Three features of the county's land use stand out:

- (a) the overwhelming dominance of wheat, emphasising Suffolk's importance in the national economy, with 140,000 acres under this crop.
- (b) the fact that barley was virtually the only other grain crop grown, occupying some 130,000 acres
- (c) the fact that apart from these two crops and the much smaller acreage of rotation grass, there was little else grown except 63,000 acres of turnips and 50,000 acres of beans and peas. Mangolds were little in evidence except on the Chalky Boulder Clay of east Suffolk, cabbages would have been noticeable only in the Fenland, while potatoes as a field crop did not exist.

One clear message comes across from the 1854 returns: the state of agriculture in Suffolk after the repeal of the Corn Laws was hardly that of the drastic decline forecast by the opponents of that Repeal.

NOTES

- <sup>1</sup> For this and other details of early attempts at the collection of agricultural statistics, see Coppock, 1956.
- <sup>2</sup> Papers on the 1801 crop returns (P.R.O., H.O.67) include Hoskins, 1949 (on Leicestershire), Minchinton, 1949 (Gloucestershire) and Williams, 1950-51 (Wales).
- <sup>3</sup> For these, see Dodd, 1976.

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