

## CHANGING FARM SIZES IN WOODLAND HIGH SUFFOLK, 1690–1840

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IF THE VARIOUS reports included in Arthur Young's *General View of the Agriculture of Suffolk* and his *Annals of Agriculture* are to be believed, the large holding, normally the manor or 'hall' farm in each parish, appears to have played a significant role in the development of farming practice in Woodland High Suffolk. This area is known today as the Central Claylands and is located principally to the north and east of Stowmarket (see Fig. 13). The agricultural experiments of John Edwards at Poplar Farm, Ashbocking, Lee Hawes at Wetheringsett Lodge, and Lionel Hayward at Stoke Ash Hall and Chapel Farm, Thornham Parva, for example, appear frequently in both publications, and these progressive men were some of the region's largest farmers (Young 1813, 34–35, 370–71, Raynbird 1849, 93, 182–83, 187). Consequently, this paper will examine the changes that occurred in farm numbers and sizes in the district, and test whether there is any chronological connection between widespread farm amalgamation and the improvement in agricultural techniques.

In the 17th and 18th centuries the area was pastoral in nature, with few farms having more than 25 per cent in tilth. Dairying was the main prop of the economy until the French Wars, when significant tracts of grass land were ploughed up; by 1850 few farmers had more than a quarter of their land under pasture and meadow. The region was also typical 'ancient' countryside, as defined by Rackham, largely enclosed by 1600, with farm sizes that were relatively modest compared to other areas of East Anglia, such as the predominantly sheep/corn districts of the Sandlings and north-west Norfolk.<sup>1</sup> The substantial farmers mentioned above were still only working acreages of between 320 and 375 acres. In addition, the fractured land-holding patterns that were evident in most of the region's parishes were in stark contrast to the 'closed' villages of north Norfolk, the supposed home of the 'agricultural revolution' and the famous four course system.

### A CHRONOLOGY OF FARM SIZE CHANGES

A useful document that sheds some light on farm sizes at the beginning of the period under discussion is a 1587 map of the parish of Earl Stonham.<sup>2</sup> It is immediately noticeable that the majority of holdings were small, mainly between twenty and sixty acres. If the farm was larger than this it was not usually in one continuous block, but rather consisted of parcels of from thirty to fifty acres, connected by roads or long greens. Only the old demesne lands of Deerbolt Hall Farm and Roydon Hall Farm were large compact farms of the type that would be instantly recognisable in the 19th century. Pre-1750 parish maps, however, are unfortunately rare, so that all subsequent information on changing farm sizes has had to be gleaned from estate rentals, surveys and leases. There is evidence from these documents that farm consolidation was taking place at the end of the 17th century. Certainly, the amalgamation of the smallest farms on the Grimston estate at Thorndon, Rishangles and Occold had been completed by the early years of the 18th century. Two small holdings, barely ten acres each, were added to the largest farm on the estate, Rishangles Lodge, in the 1690s; while two forty-acre farms, known then as Bartlett and Laxums, were joined along with a cleared section of Rishangles Wood to form the major part of Woodhouse Farm. This last amalgamation had just been completed in time for a new lease to be drawn up in 1701.<sup>3</sup> The Grimston family were pursuing similar and contemporary engrossing

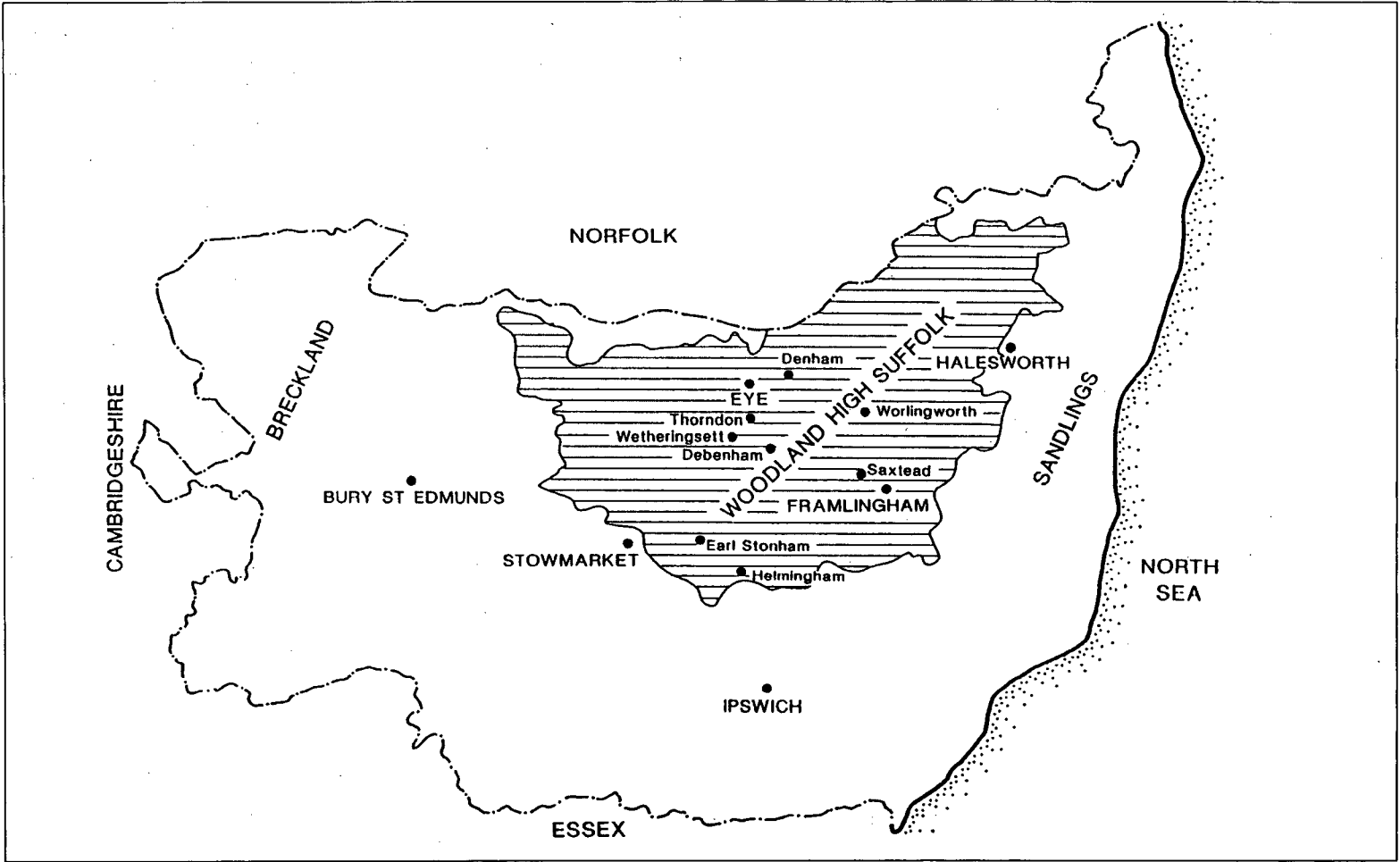


FIG. 13 - Woodland High Suffolk.

policies on their home estates at Gorhambury, Hertfordshire (Clay 1985, 243). Apart from the addition of two fields to Green Farm there is no change in farm size on the estate for the rest of our period. Amalgamation altered the size range so that no holding was less than 100 acres; Rishangles Lodge totalled nearly 320 acres.

Other sources that suggest increasing farm sizes contemporary with the above example include a 1651 survey and a 1725 map of the Thomas Bedingfield estate at Denham. Though Denham Hall Farm, Denham College Farm and Mill Farm remained essentially the same between the two dates, three farms and five parcels of land were consolidated to make Grove Farm and Reading Hall.<sup>4</sup> In a similar way, in 1718 on the Holt estate, Abbot's Hall was leased together with Facons Hall in Rickinghall Superior, and Mays Farm and Clockhouse Farm were joined to make the holding centred around the homestead now known as Hill House, Burgate.<sup>5</sup> Additionally, there is clear evidence of consolidation of holdings on the Tollemache estate at Helmingham (Tables I and II).

TABLE I: REDUCTION OF FARM NUMBERS AT HELMINGHAM, 1729-1803

1729		1737		1743		1803	
<i>Owners</i>		<i>Owners</i>		<i>Owners</i>		<i>Owners</i>	
Tollemache	Others	Tollemache	Others	Tollemache	Others	Tollemache	Others
14	9	10	6	8	4	11	0
23		16		12		11	

TABLE II: CHANGES IN FARM SIZE AT HELMINGHAM, 1729-1803

<i>Year</i>	<i>No of farms of 9-100 acres</i>	<i>Average acreage</i>	<i>No of farms of 100+ acres</i>	<i>Average acreage</i>	<i>Total average acreage</i>
1729	17	38	6	191	78
1737	10	40	6	226	110
1743	5	46	7	215	145
1803	5	72	6	224	155

According to a near-complete series of rentals from 1646 onwards, and a set of maps made in 1729, there was little change in holding sizes between the two dates. The only information worth noting is the acquisition of Gables Farm by the early 1690s. The 1729 set of maps shows fourteen farms on the Helmingham estate; both the old and the new park with the hall are also drawn. There were still nine farms not in Tollemache's ownership at this time, making a total of twenty-three holdings in the parish. Three-quarters of the parish's farms were below 100 acres. However, there is a marked change in the austere years of the 1730s and 1740s. By 1737 many of the smaller holdings had disappeared, either by amalgamation or by the encroachment of the park's western and southern boundaries. The number of farms was now reduced to sixteen (six of which were not owned by Lord Tollemache); ten

of these holdings were below 100 acres. The acquisition of three small farms to the west of the park helped the process of amalgamation. Rationalisation continued into the 1740s, with farm numbers reduced further to twelve by 1743; four of these holdings were still not in the ownership of Lord Tollemache. Most notable, though, was that the number of farms below 100 acres had fallen to five. The acquisition of the four remaining holdings in the second half of the century meant that by the 1790s the Tollemache family owned the whole of Helmingham. These later purchases were not consolidated with other holdings so that in 1803 Isaac Johnson had to draw eleven separate farm plans.<sup>6</sup> The number of farmers in the village had therefore halved between 1729 and 1803, with the average farm acreage doubling from seventy-eight to 155 acres.

From the information available it would seem that the main period for the growth in farm size came in the first half of the 18th century. Mingay (1962, 481) has found a similar trend on the Kingston estates in Nottinghamshire and the Bagot estates in Staffordshire. The latter, Staffordshire, example corresponds very closely with the Tollemache information given above. Though there is evidence of occasional farm consolidation in the second half of the century, mainly on the estates bought by the new merchant classes such as the Hennikers at Thornham Hall, it would appear that the process of engrossment had largely run its course by the beginning of the 19th century. Certainly, the description of the varying farm sizes of High Suffolk given by Young in 1794 tallies closely with the Tithe Awards fifty years later. He acknowledged that there were 'many small' farms of between twenty and 100 acres, but intermixed with these were the holdings of between 100 and 300 acres (Young 1813, 13). Though there were larger farms than this, there were very few that went past the 375-acre mark. Stability in farm sizes between the 1790s and the 1840s can be seen more clearly when consulting various tithe records and estate papers. Rapid changes in land usage in the 1790s prompted incumbents to make surveys of the whole of their parishes for the purpose of tithe collection. Three villages where this occurred were Mickfield, Saxtead and Mendlesham.<sup>7</sup> Caution has to be exercised when assessing farm sizes from these sources, because each figure depends on the incumbent's estimate, and farms that straddled two or more parishes will naturally be under-valued. Nevertheless, average farm sizes in the three parishes were ninety-five, fifty-five and seventy-nine acres respectively, and these figures hardly changed at all between the 1790s and 1840. Likewise, there is little change in farm sizes on the Tollemache estate between 1803 and 1839.<sup>8</sup> Besides eight acres of town land being given to the smallest farm in the parish, most of the holdings were unchanged; there were still three farms below 100 acres. However, a redistribution of land in order to make Parkgate Farm, Elm Farm and Pearls Farm roughly the same size did occur in this period. Seventy acres were taken from the first of these farms and shared out between the other two holdings; from this action the farm totals had changed to 127, 142 and 122 acres, respectively. Similarly, after the hiving off of land belonging to Thwaite Hall Farm to neighbouring holdings in 1795, the Sheppard-owned farms in Thwaite and Mendlesham stayed constant in size for the following fifty years.<sup>9</sup> In addition, Grigg (1966, 197) has found that farm sizes remained static between 1770 and 1850 in South Lincolnshire.

It is important to realise, however, that amalgamation would usually have been more extensive in parishes with a single predominant landowner. The impact of this feature on farm size can be seen at Denham, where by 1842 Sir Edward Kerrison owned 86 per cent of the parish. The average size of the Kerrison farms was 120 acres; whereas the non-Kerrison holdings had a mean of only fifty acres.<sup>10</sup> Naturally, the process of consolidation would have been hindered by scattered and fragmented land-holding structures. Such tenurial characteristics were prevalent in Woodland High Suffolk. For instance, in 1854 John Glyde knew of only seven villages in the region that were completely owned by one individual. These were Helmingham (Tollemache), Thornham Magna (Lord Henniker),

Great Ashfield (Lord Thurlow), Bruisyard (Earl of Stradbroke), Gipping (Tyrell), Burgate and Rickinghall (Wilson) (Glyde 1854, 326). Many parishes, therefore, would not have experienced the same level of amalgamation found at Helmingham and Denham. The small parish of Rishangles, for instance, never had more than 28 per cent of its land under one owner between the 1660s and the 1840s. Consequently, the only evidence for amalgamation comes with the joining of three holdings to make Woodhouse Farm.<sup>11</sup> Additionally, Worlingworth in 1714 had forty-three holdings and forty landowners (not including small holdings); but by the time of the 1837 Tithe Award the number of farms had only dropped by six to thirty-seven, and the number of landowners had fallen to twenty-eight.<sup>12</sup> Though Lord Henniker was the largest proprietor at this latter date he held barely one quarter of the total acreage of the parish. Farm consolidation between the two dates was confined to three Henniker farms (The Grove, Poplar Farm and Mill Farm), and Hill and Lodge Farms. The majority of the parish's holdings were still below 100 acres in the 1840s, with the average size being fifty-nine acres. Therefore, though many small farms were lost both in Woodland High Suffolk and indeed through much of England in the 18th century, they still survived in sizeable numbers in the 1840s (Mingay 1962, 469). It was calculated from the 1851 Census that 52 per cent of farms in Suffolk were below 100 acres, though admittedly the percentage of farm land covered by these holdings was relatively modest (Glyde 1854, 335-37). Across England and Wales, for example, only 22 per cent of farm land was laid out to holdings that were 100 acres or less (Beckett 1983, 308).

#### THE STIMULI BEHIND RATIONALIZATION AND AMALGAMATION

The principal phase of farm consolidation detailed above took place in a period of economic austerity; it is unlikely that this link is purely coincidental. Most of the examples of farm amalgamation in the region occurred after 'natural' forces such as the death or bankruptcy of a tenant had intervened; there is little evidence to suggest that the process was deliberately enforced by the landowner (Clay 1985, 210). For instance, the Bartlett and Laxum farms mentioned earlier were joined in 1699, one year after the death of the latter tenant, Robert Laxum. A small farm was also joined to Brames Hall, Wetheringsett, after the death of its tenant, John Gildersleeve, in 1704. As Edward Laurence warned, 'to alter farms, and to turn several little ones into great ones, is a work of difficulty and time; for it would raise too great odium to turn poor families into the wide world, by uniting farms all at once' (Laurence 1727, 3). Economic failure seems to have claimed many smaller farmers in the middle decades of the 18th century. This is the principal reason for the sharp decline in farm numbers at Helmingham discussed earlier. The tenant of the fifty-acre holding inevitably had little capital in reserve to protect against a sustained period of economic depression such as that experienced in the grim years of the 1730s and 1740s. Also, it is likely that the small farmer suffered the most from the long period of low grain prices in these decades; it was normal for smaller holdings to have higher proportions of land under the plough. Certainly, the steward for the Tollemache estate commented in 1747 that 'the corn farms [in Helmingham] are the worst and have been so for some years last past'.<sup>13</sup>

In addition, the cause of the smaller farmer was further hindered by the comparatively high levels of rent he had to pay. On the Tollemache estate, for instance, in the 1730s and 1740s most of the farms above seventy acres had rents of between nine and eleven shillings per acre, though some of the holdings above 300 acres had rents as low as six and a half shillings. The thirty- to sixty-acre holdings, however, had rents of between thirteen and eighteen shillings per acre.<sup>14</sup> Past research by Allen, Beckett and Clay suggests that similar

rent disparities could be readily found in other English counties, such as Northamptonshire, Oxfordshire and Devon in the 18th and 19th centuries (Beckett, Turner and Afton 1997, 53–56, 116–18; Clay 1985, 212, 232). Various theories can be adduced to explain this disparity. Clay, for example, attributed it to the greater competition for small farm occupancies, and the proportionately heavier investment needed to maintain the farmhouse and outbuildings on these holdings. It is important to realise that maintenance costs for the buildings were met by the landlord, at least at the beginning of each lease. The tenant bore the expense of keeping these structures in good repair during his lease term, along with ‘field’ repairs, such as hedging, ditching, gate and stile work. It was the custom, however, ‘for tenants to let houses go bad’, in the knowledge that repairs would be made by the landlord at the beginning of the next lease term.<sup>15</sup> The yearly amount needed to maintain the buildings of a fifty-acre farm would not have differed greatly from that expended on a holding of 150 acres. Rent levels would have been weighted accordingly to account for this. The rent of the *land* of the farm, therefore, was disproportionately low compared to that of the homestead and outbuildings. Nevertheless, though Beckett also acknowledges the impact building repair costs had on rent levels, he suggests that other issues such as the risk of having untenanted large farms, and the fact that small holdings were often situated on better quality land, played a central role in producing the above disparities in farm rents (Beckett, Turner and Afton 1997, 55, 118–19). As far as the latter point is concerned, it is noticeable at Helmingham at least, that the smallest holdings at the beginning of the 18th century were chiefly located on the better drained valley soils that follow the B1077 road in the northern and central sectors of the parish.

Nevertheless, though it is unlikely that landowners actively sought to enforce farm amalgamation, it is probable that they welcomed any reduction in the number of holdings on their estates. Fewer farms on a property made it easier to collect the rent, preserve timber supplies, maintain the dairying, pastoral landscape and increase each estate’s net income. To start with, rent arrears, especially in the precarious second quarter of the 18th century, were a continual problem for landlords. Not surprisingly, the small tenant farmer had always been the most likely to default on his rent payments; and he was also the least likely to keep his hedges and ditches in good repair (Clay 1985, 232). In tackling these problems, the preferred option was to reduce the number of rents gathered by the amalgamation of smaller holdings. Of course, for this policy to work both landlord and steward had to ensure that the remaining tenants on the estate had enough capital behind them to work these extra acreages and pay the combined rents. The substance, character and ability of prospective tenants were constantly discussed in the letters between steward and landlord. Secondly, more farmhouses on an estate meant more hearths to fill with firewood, and consequently the dominance of pollard trees over timber. This concern for tree stocks can be seen in the advice given in 1709 by Mr Nelson, steward for Brames Hall, Wetheringsett, to the landlord, Mr Sherrington, that, if the late Mr Gildersleeve’s small farm was leased with Brames Hall, ‘it will be much to your advantage particularly as to the wood, for you save the firing for the small farms’.<sup>16</sup> The drastic consequences of letting land out in small blocks can be seen at the Pembroke College estate at Saxtead. The land was farmed by undertenants in portions that rarely exceeded forty acres, and by 1704 there was so little firewood left that stocks had to be acquired up to four miles away.<sup>17</sup> Thirdly, there was the need, at least before the French Wars, to preserve the dominance of pasture over arable land; such a policy prevented the tenant from continually cropping large areas of arable land and therefore leaving the farm exhausted at the end of his lease. As already mentioned, smaller holdings were more likely to have larger proportions of land in tilth. Engrossment would therefore have protected much of the pasture and meadow grounds in the region at least until the final decades of the century.

Lastly, and most importantly, was the landlord's desire to increase the net income from his property. Mark Overton (1996, 173) suggests that this was achieved by increasing the rent paid by the enlarged farms; the evidence from the Tollemache estate, however, does not bear this out. When engrossment took place in the 1730s and 1740s at Helmingham, rent levels either stayed the same or rose by a nominal amount. Much the same was true with the amalgamation of the Bartlett/Laxum farm at Rishangles in 1699 and Brames Hall and the Gildersleeve holding at Wetheringsett in 1704/5.<sup>18</sup> In both cases the old rents were simply added together, resulting in the rental totals remaining exactly the same. Reducing disbursement levels, however, would increase the profitability of each estate; this was most successfully done by decreasing the burden of building repairs. Young noted that such costs were 'so heavy an article of deduction from the annual receipt of an estate, as to lessen considerably the net profit resulting from landed property' (Young 1813, 10). In 1775 Nathaniel Kent estimated that between 7 and 11 per cent of the annual rent from an estate was expended by the landlord on building repairs (Clay 1985, 247). (Young gives an example where the figure was at 25 per cent, but this is possibly an exaggeration.) Of course, both these calculations were made *after* the main period of amalgamation in our region, suggesting that the burden of repair costs would have been even larger at an earlier date. When amalgamation took place the farm buildings of the annexed holding(s) were pulled down, as were some of the homesteads. The remaining houses were usually rented out to labourers as cottages.

#### FARM SIZE AND AGRICULTURAL IMPROVEMENT

It is important to note at this point that the move towards larger holdings came just before, or at the very beginning of, an era of agricultural improvement. The question therefore has to be asked, how important a role did the larger farm play in the adoption of improved agricultural techniques? To answer this question the gradual integration of turnips and clover into arable rotations to form the celebrated four-course will be examined. The former crop was the first to be introduced in the region, between 1670 and 1710, and its primary use was as an extra food source in the winter and early spring months, especially for cattle to be fattened up for beef. It is no coincidence, therefore, that in this same period the region's farmers began to buy in northern and Scotch beef cattle from fairs. For example, in a tithe deposition for the parish of Wilby, four men were noted as being the first to purchase such cattle in the village between 1668 and 1674.<sup>19</sup> The same document also describes these men as large farmers, suggesting in turn that the more substantial holdings may have been the earliest adopters of the new fodder crop. However, the document does not give definitive proof that these new beasts were actually being fed on turnips, and complementary probate inventories for the 1670s and 1680s suggest that both small and large holdings were beginning to grow the root.

Clover, on the other hand, was not cultivated as an arable crop in the region until the late 1730s and 1740s, but again archival sources suggest that early adopters could be found on a wide range of holdings. Indeed, one farmer at Westhall in the mid-1740s believed that soil properties rather than farm size played a critical role in governing whether or not a holding cultivated the artificial grass. William Spall commented that most of the clover in the village was grown 'near or around the parish church where lands are more mixed and light'.<sup>20</sup> By the 1760s there is clear evidence from cropping accounts that clover was cultivated on small and large farms alike. Brook Farm, Framlingham, a holding in Parham, and Wetheringsett Lodge Farm had all fully integrated the grass into arable rotations between 1760 and 1766, but whereas the first two holdings were between thirty-five and forty acres, the last property was over 350 acres.<sup>21</sup> Moreover, though not specifically

concerned with the adoption of new crops, Overton and Allen have suggested that 'farm size had little impact on [grain] yields', even though both were rising together in the 18th century. Allen and Theobald have also found that total livestock densities actually declined as the size of the holding became larger (Overton 1991, 309–10; Allen 1991, 246–47; Theobald 2000, 147).

Documentary sources, and the empirical data extrapolated from them, seem therefore to indicate that small holdings could be progressive in their farming techniques and at least as productive as their larger counterparts. It is possible, however, that the largest farmers in the region were the very first to adopt new methods and that their experiences when implementing these procedures helped encourage others to follow their example. Arthur Young certainly believed that these holdings were vitally important in this role, though caution has to be exercised when using his reports, as he seems to have been inherently biased towards the large farm. One of the chief examples given in this context was Poplar Farm, Ashbocking, which was farmed by John Edwards. This tenant farmer was described as being one of the first people in Suffolk to underdrain his land with bush faggots. The transformation of the region's pastoral landscape to one dominated by arable regimes was largely dependent on the ability of farmers to underdrain their lands properly. John Edwards was apparently not only in the vanguard with this process, but he also allowed his labourers to be 'borrowed as far as Framlingham, and beyond, by farmers, to teach their men the art' (Raynbird 1849, 187). Edwards started his first lease term at Poplar Farm in 1774. Nevertheless, even if he was the first, it did not take long for this important advance to spread throughout the district, and if the example of Wyverstone College Farm is in any way representative, small farmers did not lag behind in this respect. The tenant of this forty-acre farm was described in 1785 as having expended 'several sums' on underdrainage in the last few years.<sup>22</sup>

Besides underdrainage, the introduction of new implements such as the seed drill and the extirpator or 'scalp plough' (in essence, an elaborate scarifier), further improved the cultivation of grain crops, especially those sown in the spring. By using these implements farmers could reduce or eliminate the need to plough in the wet months of February and March, which was particularly problematic on the heavy clays found in the district. It seems likely that the larger farmers in the region were the first to purchase and use these new models. For example, the farmers at Wetheringsett Lodge (Mr Press), Euston Hall, Debenham (Mr Dove), and Crows Hall, Debenham (Mr Moore) were described by Young as some of the earliest drillers in the county, having started in the early to mid 1780s; while Lionel Hayward at Stoke Ash Hall was actually responsible for inventing the extirpator, probably in the late 1780s (Young 1813, 35, 372–73). It is possible that only this category of men had enough capital behind them to invest in new machinery, and cope with the losses incurred if the early prototypes proved defective. Nevertheless, by 1800 it was not uncommon for at least drills to be hired out from large holdings to farms below 150 acres; while after 1810, cheap iron scarifiers were invented for the use of the smaller farmer (Raynbird 1849, 93, 100).

#### CONCLUSION

By the last quarter of the 18th century the process of amalgamation in our region had chiefly run its course, leaving an increased number of holdings over 150 acres. Though a considerable number of small farmers still remained in 1840, many from their ranks had become landless labourers living in adapted cottages, such as Nos 78 and 79 New Road, Helmingham. The process of farm amalgamation, however, was not driven by a landed class, desperate to promote agricultural innovation and better farming practice, but was rather the result of periods of economic hardship and the more earthbound desire of



landowners to reduce their overheads. Moreover, though farm size increases probably aided the adoption process of new farming methods, it is unlikely that they were the deciding factor that led to 'revolutionary' productivity growth in English agriculture.

## NOTES

- 1 Rackham 1986, 3–5. For more information about the development of the Suffolk clayland landscape in the early modern period, see Theobald 2000.
- 2 S.R.O.I., HB 11/1/88.
- 3 H.R.O., X1.13; E.R.O.C., D/DH/VI/B/48, 49, 50, 51, 54.
- 4 S.R.O.I., HB 18: 51/10/1.3; HB 21: 280/3.
- 5 S.R.O.I., HA 240: 2508/77, 90.
- 6 H.H.A., T/HEL/25/7, 9, 16, 20, 21, 23, T/HEL/26/18. Set of maps, 1729 and 1803, held in Helmingham Hall. Many thanks to Lord Tollemache and Mr Bill Serjeant for making access to this material possible.
- 7 S.R.O.I., FB 19/C4/2, FC 102/C1/3, HA 87/C8/1/1.
- 8 S.R.O.I., HD 11:475 (Helmingham), and FDA 123/A1/1a, P 461/123.
- 9 S.R.O.I., HD11: 475 (Thwaite and Mendlesham), FDA 259/A1/1a, 1b, FDA 173/A1/1a, FDA 173/A1/1b.
- 10 S.R.O.I., FDA 83/A1/1a, b, FDA 92/A1/1a, FDA 139/A1/1a.
- 11 H.R.O., X1.13; S.R.O.I., HB 19: 50/15/12.5, P 461/207, FDA 207/A1/1a.
- 12 S.R.O.I., HD 417/38, P 461/300, FDA 300/A1/1a.
- 13 H.H.A., T/HEL/1/86.
- 14 H.H.A., T/HEL/25/16, 20, 21, 23.
- 15 S.R.O.I., T1/1/2.
- 16 P.R.O., C109/153, J. Nelson to Mr Sherrington, 20 May 1709.
- 17 P.C.A.C., Framlingham/T2, James Boys to the College Fellows, 28 Aug. 1704.
- 18 H.H.A., T/HEL/20/42, T/HEL/25/16, 20, 21; H.R.O., X1.25; E.R.O.C., D/DH/VI/B/48, 49; P.R.O., C109/153.
- 19 P.R.O., E134/CHAS2/EAST24.
- 20 P.R.O., E134/17GEO2/EAST3.
- 21 S.R.O.I., GB 1/13C/1; S.R.O.B., IC500/3/51/116.
- 22 P.C.A.C., MS LI (1774–1824).

## REFERENCES

- Allen, R.C., 1991. 'The Two English Agricultural Revolutions, 1450–1850', in Campbell and Overton 1991.
- Beckett, J.V., 1983. 'The Debate over Farm Sizes in 18th and 19th Century England', *Ag. Hist.*, 58.
- Beckett, J.V., Turner, M.E. and Afton, B., 1997. *Agricultural Rent in England, 1690–1914*. Cambridge.
- Campbell, B.M.S. and Overton, M. (eds), 1991. *Land, Labour and Livestock: Historical Studies in European Agricultural Productivity*. Manchester.
- Clay, C., 1985. 'Landlords and Estate Management in England', in Thirsk 1985, V.ii.
- Glyde, J., 1854. *Suffolk in the Nineteenth Century*. London.
- Grigg, D.B., 1966. *The Agricultural Revolution in South Lincolnshire*. Cambridge.
- Laurence, E., 1727. *The Duty of the Steward to his Lord*. London.
- Mingay, G.E., 1962. 'The Size of Farms in the Eighteenth Century', *Econ. Hist. Rev.*, 14.
- Overton, M., 1991. 'The Determinants of Crop Yields in Early Modern England', in Campbell and Overton 1991.
- Overton, M., 1996. *Agricultural Revolution in England*. Cambridge.
- Rackham, O., 1986. *The History of the Countryside*. London.
- Raynbird, H. and W., 1849. *The Agriculture of Suffolk*. London.

- Theobald, J.A., 2000. 'Changing Landscapes, Changing Economies: Holdings in Woodland High Suffolk, 1600–1850' (unpublished Ph.D. thesis, University of East Anglia).
- Thirsk, J. (ed.), 1985. *The Agrarian History of England and Wales*. Cambridge.
- Young, A., 1813. *A General View of the Agriculture of the County of Suffolk*. London.

*Abbreviations*

- E.R.O.C. Essex Record Office, Chelmsford.  
H.H.A. Helmingham Hall Archives.  
H.R.O. Hertfordshire Record Office.  
P.C.A.C. Pembroke College Archives, Cambridge.  
P.R.O. Public Record Office.  
S.R.O.B. Suffolk Record Office, Bury St Edmunds Branch.  
S.R.O.I. Suffolk Record Office, Ipswich Branch.