A Grain of Truth: The Nineteenth-Century Corn Averages[1]

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THE initial use of the corn averages was to regulate Britain's external grain trade, but during the nineteenth century other functions were added. Many landlords began to use them as the basis of corn rents; from 1837 they were widely utilized in the calculation of tithe commutation payments; and in the 1880s they were acknowledged as a 'public official record of the average prices of [an] important article of working class consumption'.[2] Historians, too, have made use of the averages for several purposes, among them that of assessing the value of British corn imports,[3] to estimate and examine domestic wheat production,[4] to form consumer price indices,[5] as indicators of the state of the harvests,[6] as guides to social unrest,[7] and, of course, simply as a record of agricultural prices.[8] Unhappily, such use has tended either to ignore or to play down the concern of contemporaries as to the validity of the figures.[9] Apart from the recent work of Adrian, who discusses the reliability of the averages with respect to markets in East Anglia, we have to go back almost half a century, to the monographs of Fay and Barnes, to find any detailed discussion of the calculation of the averages, and even these are not wholly satisfactory because of limitations on the time period covered, and a failure to realize the full implications of the statistical procedures adopted.[10] The intention of this

[1] Where not otherwise stated the statistical data for this paper were obtained from PRO Corn Office Papers, MAF 10/25–7, 298–301, 368–9, the *London Gazette*, and the *Journal of the Statistical Society*. I am grateful for research assistance from Joyce MacMillan and Margaret Williamson, for financial assistance from the University of Edinburgh and the Flinders University of South Australia, and for comments on an earlier version of the paper from my colleagues at Flinders.

[2] *Select Committee on the Corn Averages* (BPP 1888, X), QQ 22–5, 33. In the twentieth century cereals deficiency payments were also based on the averages.

[3] A H Imlah, *Economic Elements in the Pax Britannica*, Cambridge, Mass, 1958, p 31; J R T Hughes, *Fluctuations in Trade, Industry and Finance 1850–1860*, Oxford, 1960, p 61.

[4] S Fairlie, 'The Corn Laws and British Wheat Production, 1829–76', *Econ Hist Rev*, 2nd ser, XXII, 1969; E L Jones, 'The Changing Basis of English Agricultural Prosperity, 1853–73', *Ag Hist Rev*, X, 1962, p 111; D Grigg, *The Agricultural Revolution in South Lincolnshire*, Cambridge, 1966, pp 157–8; M Olson and C C Harris, 'Free Trade in Corn: A Statistical Study of the Prices and Production of Wheat in Great Britain from 1873 to 1914', *Quarterly Jour Economics*, LXXIII, 1959.

[5] W S Jevons, 'On the Variations of Prices and the Value of the Currency Since 1782', *Jour Stat Soc*, XXVIII, 1865; A Sauerbeck, 'Prices of Commodities and the Precious Metals', *Jour Stat Soc*, XLIX, 1886; R S Tucker, 'Real Wages of Artisans in London 1729–1935', *Jour American Statistical Association*, XXXI, 1930; A D Gayer, W W Rostow and A J Schwartz, *The Growth and Fluctuations of the British Economy*, 1790–1850, Oxford, 1953, I, pp 460–84; E H Phelps Brown and S V Hopkins, 'Seven Centuries of the Prices of Consumables Compared with Builders' Wage-Rates', *Economica*, XXIII, 1956.

[6] R C O Matthews, *A Study in Trade-Cycle History: Economic Fluctuations in Great Britain, 1833–42*, Cambridge, 1954, pp 30, 34.

[7] W W Rostow, *British Economy of the Nineteenth Century*, Oxford, 1963, pp 124–5.

[8] eg J D Chambers and G E Mingay, *The Agricultural Revolution 1750–1880*, 1966, *passim*; B R Mitchell and P Deane, *Abstract of British Historical Statistics*, Cambridge, 1962, pp 488–9; T W Fletcher, 'The Great Depression of English Agriculture 1873–1896', *Econ Hist Rev*, 2nd ser, XIII, 1960–61.

[9] Of the works cited in the previous footnotes only three authors commented on the accuracy of the statistics. Olson and Harris acknowledged that the annual prices which they used were unweighted averages, but carried on regardless; Matthews considered that the figures for the quantities sold were 'notoriously unreliable' as proxies for production; Fairlie agreed that they had deficiencies but felt that they were reasonable indicators of trends and fluctuations. No author went into detail on the validity of the raw data.

[10] C R Fay, *The Corn Laws and Social England*, Cambridge, 1932; D G Barnes, *A History of the English Corn Laws 1660–1846*, 1930; L Adrian, 'The Nineteenth Century Gazette Corn Returns From East Anglian Markets', *Jour Hist Geog*, III, 1977, pp 217–36. Before this article went to press the author was unaware of the index of sales returns produced by Susan Fairlie and published in

paper is to extend the critique of Fay, Barnes and Adrian, to assess whether or not the corn averages were statistically sound, and to provide historians with a revised price series and an index of production for wheat, oats and barley.

I

The origins of the corn averages lay in the government's efforts to operate its Corn Laws.[11] If the market price at home was to determine the level of import duties and export bounties then some method of obtaining that price had to be devised. The revealed deficiencies of merely relying on 'expert' opinion paved the way for the production of an official register of grain prices. Initially, responsibility for its compilation was placed upon JPs in a few selected counties, but the legislation proved ineffectual. Greater success was obtained with an Act of 1781, which required an Inspector of Corn Returns to publish Mark Lane (London) corn prices weekly in the *London Gazette*. Eight years later data collection was extended to all maritime counties, but imperfections in the legislation led to a codifying and consolidating statue in 1791 by which inspectors in selected towns in each of twelve English maritime districts had to produce weekly average grain prices for their particular markets. These prices were used to calculate averages for each district which were then made the basis for controlling imports into that district. A ludicrous position was thus created in which one maritime district could have its ports closed against foreign grain while another allowed importation. Reaction to this situation induced legislation in 1804, which abandoned provincialism and required the central Receiver of the Corn Returns to calculate a *national* average price by which all ports would be governed.[12]

Before 1821 the price for the first maritime district, which comprised the counties of Essex, Kent and Sussex, was determined exclusively by dealings in the Mark Lane Corn Exchange. Here an inspector had been appointed by the proprietors of the Exchange, and all corn factors were required, under a penalty of £50, to submit to him a weekly written account of the price and quantity of every sale of home-grown corn made by them, the names of the buyers, and details of the weights and measures utilized. The inspector was required to convert all weights and measures into Winchester bushels and to calculate a district average price by dividing the total receipts by the total quantity of sales. For the other eleven maritime districts local magistrates appointed inspectors for each of the designated towns. All dealers in corn, including millers, maltsters, merchants, factors, and agents, were bound, under a £10 penalty, to supply them with weekly written accounts of the price, quantity, and weights and measures of all transactions. A town average price was then calculated in the same way as for Mark Lane and transmitted to the Receiver of the Corn Returns in London, who used the information to produce the district and national figures.[13]

Practice and prescription, however, did not coincide. Complaints of fraud and manipulation led to the appointment of a Select Committee whose report in 1820 maintained that 'with the exceptions of the returns taken at

Industrialisierung und 'Europäische Wirtshaft' im 19 Jahrhundert: ein tagungsbericht, Veröffentlichungen der Historischen Kommission zu Berlin, Band 46, Walter de Gruyter, Berlin, 1976, pp 91–6.

[11] This section is based on *S.C. on Petitions Relating to Agricultural Distress* (BPP 1820, II), *S.C. on Corn Averages* (BPP 1888, X), particularly the Second Report and the evidence of R Giffen, Controller of the Corn Returns; Fay, op cit, pp 62–7, Barnes, op cit, pp 41–67.

[12] Strictly it was not initially a national average. Scotland's external corn trade was to be controlled by the aggregate average of four Scottish districts, but in 1805, following the failure of this average to allow imports without prohibitory high duties at a time when Glasgow, Paisley and Greenock faced almost famine prices, Parliament acceded to requests that Scotland should come under the control of the English averages, which were generally higher than their Scottish counterparts. Ireland was classed as a foreign country till 1806, after which there was free trade in corn between Britain and Ireland and Ireland's foreign corn trade also became regulated by the English averages. Fay, op cit, pp 63–4.

[13] *S.C. on Petitions, etc.*, Report, pp 3–5.

the Corn Exchange, the greatest neglect and inattention has universally prevailed'.[14] Even at Mark Lane there were omissions, for although the corn factors generally obeyed the injunction of the statute, purchases made from grain growers, shippers and agents were not within the inspector's province. Nevertheless, there is no reason to suspect that the grain sold by the factors would not be representative of other dealings at Mark Lane, and, as there was only this market to consider when calculating the district average, the omission would not cause weighting problems. More important an omission was the exclusion of the major towns of Essex, Sussex and Kent from the first district's average, for grain sold in these towns was not necessarily similar to that of Mark Lane, where dealings tended to be in the higher quality corn of the counties and where price would also reflect the higher transport charges involved.[15]

Outside London the Committee found 'universal neglect' and serious under-registration as evidenced by the many examples of low and nil returns. Possibly low figures occurred because dealers did not record sales made on non-market days or sales contracted outside the market place, both of which were common provincial practices especially where the growers sold their corn directly to the millers and merchants.[16] Moreover, it must be remembered that sales of foreign corn would not be registered as the corn averages dealt solely with the native product. Nevertheless, it is difficult to believe that these explanations could account for such instances in 1819 as the returns from Plymouth, which include weeks in which only seven quarters and three quarters were sold; or those from Bristol, a city with forty corn dealers and factors, which included weeks with sales of only twenty-five and thirty-nine quarters, and one week in which no sales at all took place;[17] or, worst of all, the astonishing and alarming figures from Manchester, Macclesfield and Stockport which suggested that not one grain of British corn was sold there throughout the whole year! Clearly many inspectors were not doing their duty. Outside Mark Lane they were all part-time officials, combining the post with a variety of occupations including, at Bodmin, a barber who sent his wife to obtain the information.[18] Perhaps they were not paid enough to ensure diligence: they received five shillings a return in contrast to the Mark Lane inspector's annual salary of £200.[19]

Possibly the neglect of the inspectors was encouraged by the weighting system used in calculating the district and national averages. No account was taken of the varying sales volumes in the different markets. Each town in a district was allotted the same weight in the district average, and each district was given equal weight in the national average. Since price alone thus could influence the averages it may well be that the inspectors saw no necessity to ascertain correct figures for sales volumes as long as the prices were reasonably accurate: and an impression of the going rate for corn could have been obtained without detailed form-filling and time-consuming calculation.

The inequities in the weighting procedure also produced a statistically incorrect average. Data in the appendix to this article shows the weights assigned to the various towns in the calculation of the district and national averages in the week ending 16 January 1819.[20] It can be seen that there were some wide disparities between these weights and

[14] Ibid, p 5.
[15] Ibid, p 6.
[16] Ibid: Evidence, pp 16, 50; Fay, op cit, p 65.
[17] The inspector at Bristol acknowledged that his returns bore little 'resemblance to the whole of the transactions which have actually taken place within the city'. *S.C. on Petitions, etc.*, Evidence, p 37.
[18] Ibid, p 24.
[19] Ibid: Report, pp 3–5. In 1821 the local magistrates were empowered to give whatever they thought to be 'a fit and reasonable sum' providing that it did not exceed £30 per annum: *1 & 2 Geo. IV c 87.*
[20] The year was chosen because detailed data are gathered together in the *S.C. on Petitions, etc.*, Appendix. The week was chosen randomly.

the actual percentage of sales recorded in the towns. The sixth district, which registered sales of only 287 quarters of wheat at an average price of 80*s* 6*d*, had the same weighting in the national average as Mark Lane where 4576 quarters were sold at an average of 72*s* 7*d*. Within that sixth district, Burton, with recorded sales totalling a mere one quarter and one bushel at 85*s* 4*d* a quarter, was weighted exactly the same as Cockermouth which had the largest sales in the district, 120 quarters, at the lowest price 73*s* 4*d*. In the national average Burton's meagre transactions had twice as much influence as the third district's Fakenham, which that week had sales of 3030 quarters, second only to Mark Lane in its turnover. The absurdities are almost endless. Within the third district, Fakenham, Norwich and Lynn had total sales of 6028 quarters, but as a group were weighted only the same in the national average as the eighth district's Pwlheli, Bala and Corwen, where transactions totalled all of fifteen quarters. We also find that the ten markets outside London with the largest sales had the same influence on the national average as the eleven with the lowest sales (excluding nil returns), despite their respective totals being a massive 10,379 quarters and a mere sixty-one quarters.

The tendency of the official weighting system was to inflate the national average price above one produced by weighting prices according to sales volume in each market. Essentially this was due to the weight allotted to the districts in the computation of the national average. In the particular week cited above, rank-order correlations between the volume of sales and lowness of price within districts were −.61, −.41, −.10, +.39, +.71, +.27, +.26, +.58, +.34, −.24, and −.24, whereas a similar calculation between districts revealed a strong positive correlation of .73.[21] Thus allowing low sales/high price districts equal weight with high sales/low price ones was bound to inflate the national average, in this instance by 1*s* 7*d* above a price given by weighting the local averages according to sales volumes. A fuller discussion of the significance of the error emanating from the weighting procedures will be found elsewhere,[22] but it will be apparent to the reader that a Corn Law which offered protection at a price determined by the averages would in practice cease that protection when the actual market price would be below that specified in the legislation. Thus the ports could be open to foreign grain when the government did not intend them to be. This actually occurred for oats in February 1818 and August 1820.

Allegations were made to the Select Committee that fraud had been practised. Amidst a generality of assumptions and beliefs two specific instances were cited: one at Mark Lane, the other at Liverpool. It was argued that, in an attempt to influence the London average, fictitious sales of wheat had been recorded in the six weeks preceding 15 November 1818: evidence for this lay in the corn factors' circulars which quoted prices bearing little resemblance to the Corn Exchange returns. At Liverpool the laxity of the inspector allowed speculative holders of British corn to return 2300 quarters of wheat at 50*s* when the true market price was 69–70*s*, 2000 quarters of oats at 18*s* (true market price 23–24*s*), 1000 quarters of beans at 35*s* (48–50*s*), and 500 quarters of peas at 38*s* (48–51*s*). Fortunately the figures excited suspicion on the part of the central Receiver, and as he used his powers to omit the Liverpool data from the national calculation the

[21] There are correlations for only eleven districts as the London market, Mark Lane, was classed as a district on its own. Why the inter- and intra-regional correlations differed is not easy to explain. Larger markets might have been expected to have lower prices because of organizational efficiencies and quantity discounts. Possibly *within* some districts these factors may have been offset by quality differences or by grain from lower-priced areas being resold in the larger markets. Transport costs *between* districts in the pre-railway era would make inter-regional sales less feasible, though against this is the fact that even in the 1830s Mark Lane acted as an entrepôt between the surplus and deficit areas. J Wilson, *Influence of the Corn Laws as Affecting All Classes of the Community and Particularly the Landed Interests*, Edinburgh, 1839, p 12.

[22] W Vamplew, 'The Protection of English Cereal Producers: The Corn Laws Re-assessed', *Econ Hist Rev*, forthcoming.

attempt to lower the general average consequently failed. Failure seems to have been the fortune of all attempted frauds: at least the considered opinion of the Committee was that in no case of alleged fraud had the perpetrators succeeded in their desire to open or shut the ports.[23]

For those who wished to raise the average there was little need to resort to illegalities as the weighting procedure made it possible to work the averages quite legally. Indeed, allowing small sales to carry as much, and sometimes more, influence than large sales on the national average was an open invitation to manipulation. It was a not uncommon practice to send agents to purchase relatively inconsiderable amounts at inflated prices in the smaller markets.[24] The temptation to work the averages was strengthened by the 1815 Corn Law which allowed foreign wheat freely into the country for the three months following any quarter day on which the average price for the preceding six weeks had been at or over 80*s* a quarter.[25] As the average production cost of much British wheat at this time was higher than that of foreign produce,[26] there was an incentive for dealers to raise the average so as to make profits on the cheaper foreign grain, for even when prices fell back below the 80*s* mark wheat could still be imported until the position was reviewed next quarter day.[27] Two corn factors giving evidence to the Committee were convinced that perhaps £400 to £500 could fix the ports, especially in the August quarter, though neither said that it had actually been done.[28]

II

The Select Committee's investigations led to two measures in 1821 designed to solve the twin problem of weighting and manipulation. First, when calculating the national average the Central Receiver was required to weight each market according to its sales volume. Additionally, in an effort to render the average more representative of actual market experience, the number of towns entering into the calculation was increased from 139 to 148. A further two towns were added in 1827. When the sliding scale Corn Law was introduced in 1828 the opportunity was taken to revise the list of towns with twenty-one of the smaller markets, mostly Welsh, being replaced by towns mainly from inland areas.[29] This meant that for the first time major consumption centres such as Derby, Nottingham, Leicester, and Birmingham were allowed to affect the national average.

The adoption of the sliding scale possibly increased the temptation to work the averages for now the duty could alter weekly and at any price level, though, of course, the fact that each town was given its due weight in the calculation of the average lessened the influence of fraud, manipulation or misrecording at any particular market. Allegations of malpractice continued to be made,

[23] Ibid: Report, pp 6–7, Evidence, pp 28, 54–5. There is one alleged successful fraud before 1828 but it is not clear whether or not this was before 1821. *S.C. on Agricultural Distress* (BPP 1836, VIII), Q 8163. The grain involved in this case was rye, of which such small quantities were sold as to render manipulation much easier than with other grains. In 1828–29, the first harvest year for which full information is calculable, average recorded weekly sales of wheat were 48,494 quarters, oats 44,037, barley 32,299, beans 5826, peas 1492, and rye only 689.

[24] *S.C. on Petitions, etc.*, Evidence, p 42; *Hansard* (Commons), 2nd ser, IV, 941, 26 Feb 1821. The inflationary mechanism could have been a genuine reflection of increased demand pressure on scarce local supplies or dealers simply could have offered more than the going rate. The latter procedure would have been easier to arrange than when dealers wished to reduce the averages as both buyers and sellers would be happy with the high prices.

[25] There was similar legislation for other grains. For rye, beans and peas the prohibitory level was 50*s* a quarter, for barley 40*s* and for oats 27*s*.

[26] *S.C. on Petitions, etc.*, Report, p 7.

[27] A provision in the law did allow that if the price fell below the prohibitory level in the first six weeks following the opening of the ports access would be refused to grain from any of the near European ports between the Eyder and the Bidassoa for the last six weeks of that quarter. This clause was actually applied to wheat in September 1818.

[28] *S.C. on Petitions, etc.*, Report, p 7.

[29] Returns were also taken for several Irish and Scottish towns but as an experiment only, and they were not used for calculating the average. In 1832 the collection of these returns was abandoned as an economy measure. At the time it was argued that the quantities involved would have been too small to influence the average significantly. *S.C. on State of Agriculture* (BPP 1837, V), QQ 319–23.

though as before most of these were in general rather than specific terms,[30] and again most attempts at fraud appear to have been unsuccessful.[31] Whether sufficient dealers could get together to manipulate the market is debatable, though at least one contemporary economist believed that the internal market was too competitive for this to happen.[32] Nevertheless, there does seem to be some substance in one widespread allegation that combinations of dealers in the large corn markets of London, Leeds and Wakefield had unduly raised the averages in the early 1840s.[33]

Although Peel believed that fraud was neither as widespread nor as effective as was sometimes alleged, he took steps in 1842 to reduce even that level. The number of towns contributing to the average was increased from 150 to 290 with the intention of including all English and Welsh towns of importance. The official view was that the extended coverage made little difference to the average price,[34] but certainly by increasing the volume of sales entering into the calculation[35] it further reduced the significance of any particular market: eg ten random samples for each of the three years prior to the change showed that the percentage of total sales taking place in London, Leeds and Wakefield ranged from 21.0 to 25.8 with a median of 23.3 whereas a similar sample after the legislation yielded a range of 11.0 to 15.2 and a median of 12.8. Secondly, the duties of the inspectors in the new towns, and in the established ones on the death or retirement of the incumbent, were added to the work of the local exciseman. It was hoped that the employment of public officials directly responsible to the government would offer greater security from both fraud and inertia, along with a reduction in the costs of data collection;[36] though it was later suggested that the general quality of the inspectorate did not improve as the excisemen were not specialists in the corn trade — but neither was the Bodmin barber — nor resident in an area long enough to obtain local unofficial information.[37] Finally, in the belief that 'the great and only effectual security against fraud in the averages is to take away the temptation to commit it', the sliding scale was revised so that variations in price brought less steep and less irregular changes in duty.[38] Later, the repeal of the Corn Laws removed the temptation altogether.

III

Further complaints in the 1870s and 1880s about the accuracy of the averages led to another Parliamentary inquiry, this one charged with assessing whether they were still a fit basis for the calculation of tithe commutation payments.[39] Three major issues were raised: a suggestion that the decline in the sales figures for wheat reflected a growing inefficiency on the part of the corn inspectors; the possibility of errors emanating from inadequate market coverage; and the likelihood that the average was inflated by the inclusion of resales of grain, the increased consumption of corn on the farm, and confusion in the

[30] See, eg the sweeping but unsubstantiated claims in J Carmichael, *Review of the Evidence Taken Before the Select Committee of the House of Commons on Agricultural Distress* (1836); 'The Corn Laws', *Blackwood's Edinburgh Magazine* LI, March 1842; *S.C. on Agricultural Statistics* (BPP 1854/55, VIII), Appendix D.

[31] *S.C. on Agricultural Distress* (BPP 1836, VIII), QQ 6249–51, 9597; *S.C. on Agriculture* (BPP 1833, V), QQ 4664. The Central Receiver of the Corn Returns claimed that there was only one instance of known fraud between 1828 and 1834. Adrian, loc cit, p 222.

[32] R Torrens, *An Essay on the External Corn Trade*, Edinburgh, 1829, p 16.

[33] Fay, op cit, pp 170–1.

[34] Statement of the Deputy Receiver of the Corn Returns. *S.C. on Agricultural Statistics* (BPP 1854–55, VIII), Q 868.

[35] In the period 1842–49 the inclusion of the extra towns increased the volume of wheat entering into the calculation by 30 per cent, barley by 32 per cent and oats by 12 per cent. Calculated from data in *Accounts Relating to Wheat, Barley, Oats, etc.* (BPP 1850, LII), p 20.

[36] *S.C. on Agricultural Statistics*, Appendix D.

[37] Ibid: Q 861, Appendix D.

[38] Peel's speech of 9 February 1842, quoted in Fay, op cit, p 171.

[39] *S.C. on the Corn Averages* (BPP 1888, X).

conversion of customary measures to imperial ones.[40]

Clearly there were deficiencies on the part of the inspectorate and the investigating Committee was persuaded that it should call for increased vigilance by the inspectors.[41] Even Giffen, the Controller of the Corn Returns, though generally satisfied with the performance of his inspectors, admitted that there were problems in some towns, notably Exeter, Hereford and Colchester.[42] Certainly, in some markets, the volume of corn returned was directly related to the energy expended by the inspectors, and there appears to have been general laxity in asking for returns of corn sold away from the market.[43] The problem was not one of evasion or manipulation but of neglect and inertia: dealers, particularly those involved in several markets, saw no point in going out of their way to make returns which, now that the Corn Laws had gone, they felt had practical significance only for farmers and the Church.[44] Nevertheless, some critics appear to have been ignorant of the fact that only British corn had to be returned. Increasingly foreign grain was entering into British diets, and sales of this had no direct part in the averages; thus it is feasible that the declining returns of quantities sold merely reflected the declining acreage under wheat.[45] The quality of the inspectors may have accentuated the problem but they were not at its root.

There is little validity in the allegation that the omission of the smaller markets from the calculations led to false national averages. The weighting system would not allow small figures sufficient influence to distort the average: indeed when the number of towns was reduced from 290 to 150 in 1864 it was 'ascertained that no difference would have been made in the returns for some time previous'.[46] Nevertheless, in response to criticism of inadequate coverage, the number was raised to 187 in 1883 and to 196 in 1890.

Perhaps more significance can be attributed to the increased proportion of grain which was consumed on the farm. The rising incomes of the working class had so reduced the market for inferior grain that it had become more profitable to turn such lower quality corn into meat and milk by feeding it to livestock.[47] The dual problem here is, first, to ascertain what quantity of production remained on the farm and, secondly, the effect which this had on the official average price. The agrarian statistician, Major Craigie, reckoned that only 10 per cent of wheat, but much more of other grains, was consumed on the farm and another authority thought that, on the whole, 10–15 per cent of corn did not go to market.[48] It is not clear, however, that the average price was much higher than it would otherwise have been, for, although everyone accepted that inferior grain did not go to market — and thus, according to one authority, kept the market price 5 per cent too high[49] — most forgot that the very best corn, that used for seed, also frequently did not go, and this would have raised the average market price.[50] Until evidence comes to light showing what the *increased* proportion of non-marketed inferior grain was, it is by no means clear that the average was unduly inflated.

In contrast to the corn which never entered into the official records, other grain was double or even treble-counted because of resales, the proportion of which had increased through changes in the structure of the grain trade. In the early nineteenth century millers and maltsters were to be found at all the little markets, but now intermediaries did the purchasing here and then resold to the millers and

[40] Ibid: R Giffen, 'The Gazette Average Prices of Corn' *Jour Stat Soc*, XLII, 1879.
[41] *S.C. on the Corn Averages* (BPP 1888, X), 2nd Report, vii.
[42] Ibid: Q 4217.
[43] Ibid: QQ 587–8, 632.
[44] Ibid: QQ 229, 514, 1014–18.
[45] Giffen, loc cit, p 710. Official figures for acreage under wheat are 1869 3.7 m, 1879 2.9 m and 1889 2.4 m; imports of wheat for the same years were 37.6 m cwts, 59.6 m and 58.6 m. Mitchell and Deane, op cit, pp 78, 98.
[46] Giffen, loc cit, p 711.
[47] *S.C. on the Corn Averages*, Q 990, Appendix 6.
[48] Ibid: QQ 2015, 3209.
[49] Ibid: Q 1088.
[50] Ibid: QQ 2195, 2201, 2204.

the maltsters at the larger markets.[51] It was argued that resales should not be allowed to influence tithe payments as they had no bearing on farm incomes, but the relevant Acts specified that *all* sales must be included in order to obtain a true idea of the current market price. There had been no debate about the inclusion of resales when the Tithe Commutation Bill had passed through Parliament, though, to be fair, there were less resales then.[52] Possibly resales did inflate prices — most likely resales would be at higher than lower prices — but there is little that can be done, for there is no way in which resold corn can be distinguished from that being sold for the first time.

It was also suggested that the average was inflated — up to 10 per cent was alleged[53] — by customary measures being returned as imperial measures, and by improper conversions of sales by weight into sales by measure. Whatever the position was earlier, and that is a matter for conjecture, the allegations had little quantitative significance by the late 1870s.[54] A Corn Office analysis of the 1878 sales, shown in Table 1, suggests that the proportion liable to error (columns B and C) would be of the order of two-thirds for wheat, over a half for oats and about a quarter for barley. However, the degree of possible error, as opposed to its extent, would be much less significant as the customary quarters (column C) were 'very often nearly equal to' the usual weight of the imperial quarter. For wheat there were 200,000 quarters with 58¾ to 60 lb in a bushel compared to the official 60 lb,[55] 310,000 at 60 to 63 lb, 770,000 at 63 lb, and only 12,000 over 63 lb; and for more than half of the bushels over the official weight the dealers had converted their sales into imperial measures for the purposes of the returns. Hence the potential error for wheat would, *at most*, be in the order of 1–2 per cent. For barley nine-tenths of the incorrectly measured grain was converted into imperial measures before being included in the returns to the inspectors. For oats the information is confused, but it would seem that although the variation in weight could range up to 10 per cent either side of the imperial measure at least half was converted into imperial measures by the dealers, and there was some offsetting in the rest with perhaps twice as much being below as was above the official weight. There was no evidence supplied regarding beans, peas or rye.

Table 1
Analysis of 1878 Corn Sales

	A	B	C
Wheat	700,000	128,000	1,300,000
Oats	80,000	12,000	91,000
Barley	1,300,000	94,000	330,000

Source: R Giffen, 'The Gazette Average Prices of Corn' *Jour Stat Soc*, 1879, XLII, 716.

Key: A – Sold by imperial measure alone, or by Winchester and other local measures, which are practically equivalent to imperial measures.
B = Sold by weight alone.
C = Sold by other customary measures.

IV

So far this paper has concentrated on assessing the validity of the weekly averages. In this section, however, two other aspects of the averages will be reviewed, the annual average price and the annual aggregated sales figures. As part of this consideration two new statistical series will be constructed.

Unlike the weekly one, the annual average was not weighted to take full account of sales variations: the weekly averages were simply totalled and divided by 52 or 53, as the case might be. A few contemporaries criticized

[51] Ibid: QQ 1010, 3079.
[52] Ibid: QQ 1295, 1337.
[53] Giffen, loc cit, p 716.
[54] Ibid, pp 716–23.
[55] The evolution of official weights and measures is discussed in Fay, op cit, pp 68–77. In 1791 all conversions had to be made at 57 lb to a bushel of wheat, 49 lb for barley, and 38 lb for oats. By the 1880s the conversion factors were 60 lb, 50 lb and 39 lb.

this procedure but felt that generally the error would not be of significance.[56] Recalculated figures, shown in Table 2 and summarized in Table 3, suggest that this was more true for wheat and oats than for barley. Between 1829 and 1859[57] the mean percentage difference between the official annual average for wheat and one weighted according to sales was 0.7, with a maximum variation of only 2.5. For oats the discrepancy was slightly wider with a mean of 1.0 per cent and a maximum of 4.0 per cent. For barley, however, the mean variation was 2.2 per cent and the maximum 8.1 per cent. Many factors contributed to the differentials between the weighted and the official averages. Among them were variations in the demand patterns of the major consumers, the uneven marketing of grains over the year because of farmers' lack of storage facilities, particularly at times of bumper crops, and the absolute shortages of grain on other occasions, as occurred with wheat in 1847.

Table 4 shows the aggregated sales volume figures for wheat, barley and oats from 1828 to 1897. Though not as accurate as the price data, the figures are not as unreliable as some contemporaries suggested. Adrian has demonstrated the internal consistency of the sales figures for markets in East Anglia, and has also evinced that save in exceptional explicable cases their fluctuations for these markets correlate reasonably with both independent local estimates and the national aggregated sales figures.[58] In addition, Fairlie has shown that for the period 1852–53 — 1863–64 variations in the annual aggregated sales of wheat correspond well with fluctuations in

Table 2

Official and Recalculated Average Grain Prices 1829–59

Year	Wheat O	Wheat R	Barley O	Barley R	Oats O	Oats R
1829	66.3	64.10	32.7	32.7	22.9	22.9
1830	64.4	63.9	32.8	33.2	24.5	23.10
1831	66.4	65.9	38.0	39.8	25.4	25.4
1832	58.10	58.7	33.1	32.11	20.6	20.6
1833	52.11	52.11	27.7	28.0	18.5	18.4
1834	46.2	45.11	29.0	29.2	20.11	20.9
1835	39.5	39.3	29.11	30.3	22.0	22.0
1836	48.6	48.11	32.10	33.0	23.1	23.0
1837	55.11	55.10	30.5	31.8	23.2	23.1
1838	64.7	64.9	31.6	31.5	22.6	22.5
1839	70.8	70.4	39.6	40.2	25.11	25.9
1840	66.4	66.7	36.5	36.11	25.8	25.2
1841	64.4	64.8	32.11	32.3	22.5	22.5
1842	57.4	56.7	27.7	27.9	19.4	19.2
1843	50.2	50.3	29.7	29.4	18.4	18.2
1844	51.4	50.10	33.8	33.10	20.8	20.7
1845	50.11	51.1	31.8	33.0	22.7	22.7
1846	54.8	55.0	32.8	34.11	23.8	23.6
1847	69.9	68.0	44.2	40.7	28.10	28.9
1848	50.7	50.8	31.8	31.8	20.7	20.5
1849	44.2	43.9	27.9	28.4	17.6	17.4
1850	40.3	40.3	23.6	24.3	16.5	16.2
1851	38.7	38.4	24.9	24.8	18.7	17.10
1852	40.10	40.9	28.7	29.2	19.1	18.11
1853	53.3	52.9	33.3	35.4	21.0	20.9
1854	72.5	70.10	36.0	37.1	27.11	27.9
1855	74.9	75.3	34.9	35.10	27.6	27.2
1856	69.2	68.9	41.2	40.11	25.3	25.0
1857	56.5	56.4	42.2	42.11	25.0	24.6
1858	44.3	44.3	34.9	35.10	24.7	24.0
1859	43.10	43.7	33.6	34.6	23.3	22.8

Source: PRO Corn Office Papers MAF 10/25–7, 298–301, 368–9; *London Gazette* 1829–59, *passim.*

Key: O = Official average in shillings and pence.
R = Recalculated average allowing for variations in weekly sales.

[56] J T Danson, 'On the Current Price, and the Cost Price, of Corn, in England during the last ten years, as illustrating the value of Agricultural Statistics', *Jour Stat Soc*, XVII, 1855; T Tooke and W Newmarch, *A History of Prices*, IV, 1848, p 409.

[57] The individual market sales figures which allow the recalculation to be made are not available in published form after 1864. Unfortunately the author originally collected data as part of a project on British harvests 1820–59, and thus the last five years of published figures were not readily to hand.

[58] Adrian, loc cit, pp 223–4.

Table 3

Variations Between Official and Recalculated Annual Averages 1829–59

	Below official							*Above official*							
% variance	5+	4–5	3–4	2–3	1–2	0–1	0	0–1	1–2	2–3	3–4	4–5	5+	Mean*	Maximum
Wheat				3	3	13	3	9						0.7	−2.5
Oats				4	6	14	6							1.0	−4.0
Barley	1			1		5	2	5	5	2	5	3	2	2.2	−8.1

Source: Table 2

Note: *Ignoring sign

independently-derived harvest estimates.[59] Thus it may prove feasible to use the sales figures to say something about trends and fluctuations in domestic cereal production.

The sales data, however, cannot indicate absolute production levels for the various grains. Although Fairlie has done this for wheat by the use of multipliers on the sales figures, her method is not generally applicable because of the absence of independent harvest estimates for barley and oats by which to check the calculated output. Moreover, the multiplier which she used before 1842 is open to question. The change in the number of inspected markets in 1842 increased the volume of wheat recorded in the sales aggregate by 30 per cent for the remainder of the 1840s. If the multiplier of 2.8 used for the period 1842–64 is acceptable, as seems reasonable considering the correlation between the multiplied sales figures and independent harvest estimates, then this would suggest that the pre-1842 multiplier should have been around 3.6 rather than the 4.0 actually used.

Even if absolute production is forgotten and the sales figures are regarded simply as proxies for production indices, there are still problems to be faced. First, the annual sales cannot be taken as accurately reflecting fluctuations in cereal production because poor harvests could lead to sales from stocks and good harvests to stock accumulation. Grouping years together, however, will enable some offsetting to take place, and should allow trends in output to be determined. Secondly, there are the changes in the number of markets entering into the calculation of the averages. Up to 1864 it is possible to remove the new town sales from the aggregates, but this would not allow for changes in marketing patterns in the long or medium term. Consequently this has been done only up to 1848 for the data sets in Table 5. Apart from this one instance separate indices have been constructed for each time-period in which the number of towns remained constant. That these are reasonably valid may be inferred from the official production estimates which would suggest an error in the constructed index for 1890–97 of 1 per cent for wheat, 2 per cent for barley and 1 per cent for oats.[60]

The indices in Table 5 make it clear that the long decline in English cereal production began in the 1840s with first the easing of the sliding scale corn tariffs and later the total repeal of duties on foreign corn.[61] It is also apparent that, whereas wheat output did not collapse dramatically till the 1870s, both oats and barley production had been affected severely three decades earlier. Barley, however, staged if not a recovery at least an arresting of the decline in the last third of the century.

[59] Fairlie, loc cit, pp 111–3.

[60] Mitchell and Deane, op cit, p 86.

[61] The influence on cereal production of the Corn Laws and their repeal is discussed further in Vamplew, 'The Protection of English Cereal Producers: The Corn Laws Re-assessed,' loc cit.

Table 4

Aggregate Cereal Sales in the Inspected Markets 1828–1897

Year*	No of towns	Wheat '000 qtrs	Barley '000 qtrs	Oats '000 qtrs	Year*	No of towns	Wheat '000 qtrs	Barley '000 qtrs	Oats '000 qtrs
1828	150	2522	1680	2290	1865	150	3580	1768	217
1829		3224	1863	2180	1866		3135	1724	255
1830		2678	1994	1918	1867		2725	1576	285
1831		3270	1993	2155	1868		2680	1666	250
1832		3458	2339	2269	1869		2816	1388	162
1833		3651	2173	2240	1870		3399	1842	206
1834		3896	1900	2287	1871		3275	1767	197
1835		4126	2401	2277	1872		2582	1593	184
1836		4278	2316	2261	1873		2442	1735	193
1837		4172	2279	2225	1874		2392	1938	169
1838		3042	2451	2184	1875		2515	1489	122
1839		3996	2285	1838	1876		2202	1835	148
1840		3868	2308	2141	1877		1943	1795	176
1841		3648	2089	2136	1878		2142	1732	184
					1879		2022	1421	162
1842		5114	2949	2306	1880		1608	1592	165
1843		5174	2745	2130	1881		1738	1632	211
1844		6604	2712	1931	1882		1904	1873	212
1845		5714	2786	1822					
1846		5436	2096	1165	1883	187	2901	2576	408
1847		5192	2562	1022	1884		2833	3149	493
1848		4597	2063	870	1885		2740	2766	393
1849		4843	2285	864	1886		2740	2474	367
1850		4319	2163	902	1887		2495	2590	309
1851		4821	2377	990	1888		2428	1912	256
1852		4871	2417	927	1889		2945	3330	416
1853	290	3414	2363	789					
1854		5145	2495	801	1890	196	3440	3328	599
1855		5283	2671	742	1891		3249	3256	562
1856		5287	2362	606	1892		3053	3494	492
1857		5087	2341	473	1893		2620	3366	576
1858		5215	2378	476	1894		1957	2729	566
1859		5498	2410	503	1895		1928	3427	666
1860		4623	1787	496	1896		2111	3392	655
1861		4290	2393	625	1897		2757	3257	550
1862		3588	2282	703					
1863		4493	2488	571					
1864		4992	2599	509					

Source: To 1858 as Table 2, thereafter Parliamentary Papers (1898, C11), pp 178–9.

Note: * Harvest year to 1858–59, calendar year thereafter.

Table 5
Index to Cereal Sales

	Wheat	Barley	Oats
1828–34*	100	100	100
1835–41*	120	116	99
1842–48*	117	87	66
1842–47*	100	100	100
1848–53*	81	86	51
1854–58*	94	93	36
1859–64	83	88	33
1865–70	100	100	100
1871–76	84	104	74
1877–82	62	101	81
1883–87	100	100	100
1885–89	97	96	88
1890–95	100	100	100
1892–97	89	100	101

Source: Table 4.
Note: * Harvest years

V

What conclusions can be drawn about the validity of the averages? Clearly no reference can be made to a national price before 1821 unless the data is reworked to allow for varying sales in the different markets. Moreover, the figures themselves are suspect because the weighting system employed encouraged both legal and illegal manipulations of the averages. After the alteration of the weighting procedure in 1821, and especially after the revision of the list of towns in 1828, reasonable confidence can be had in the *weekly* national average as a fair reflection of the actual market situation. Certainly there were problems of inspectoral inertia and dealer malpractice, but incorrect averages at any particular market did not necessarily invalidate the over-all average. It is possible that from the early 1840s the use of excisemen improved the quality of the inspectorate, but this could have been offset by the corn dealers' seeing little point in supplying information once the Corn Laws had been repealed. Finally, there is a suggestion that the average was slightly inflated in the 1870s and 1880s by the increased consumption of corn on the farm and by the use of improper weights and measures.

Less confidence can be place in the *annual* averages unless they are recalculated using a more correct weighting procedure, as has been done in Table 2 for 1828–59. Without the time or resources to replicate the studies of historians who have used the averages, it can only be suggested that their work be read bearing this paper in mind, and that where feasible the new figures be substituted for the old. In many cases the revisions called for by the new weighting system will be marginal; nevertheless, in the interests of historical accuracy they should be made. In other instances, however, the use of the more accurately weighted averages will be significant. For example, according to the official statistics the price of barley in 1847 was 35 per cent above the previous year's level, but the recalculated average shows that the actual increase was less than half this; and in 1845 reweighted figures for wheat convert an official price fall into an actual price increase. Such differences between the official and recalculated averages, even if only occasional, emphasize the need to exercise caution when quoting the results of any studies involving national cereal prices.

Finally, there are the annual aggregated sales figures. These can be used in index form as proxy measures to indicate trends in cereal production. They are less reliable as guides to the state of individual harvests, but even here the author's on-going research suggests that if used in conjunction with import statistics and contemporary estimates the sales figures might prove useful.

The corn averages are imperfect statistics. Nevertheless, if used with care they can throw light on cereal prices and production in nineteenth-century England. They cannot be dismissed as readily as they were by Henry Francis Moore, an agricultural journalist, who in his evidence to the Select Committee on the Corn Averages claimed that 'they are not worth the paper that they are written on'.[62]

[62] *S.C. on Corn Averages* (BPP 1888, X) Q 1121.

Appendix

The Weighting System for Wheat 1819

(week ending 16 January)

(1) *Towns*

	Quantity sold qtrs*	Average s d	% weight in district average	% district sales	% weight in national average	% national sales
First district						
London (Mark Lane)	4576	72–7	100.0	100.0	8.33	17.51
Second district						
Ipswich	626	78–0	8.3	15.5	0.69	2.40
Woodbridge	515	76–11	8.3	12.8	0.69	1.97
Sudbury	317	78–10	8.3	7.8	0.69	1.21
Hadleigh	609	82–10	8.3	15.1	0.69	2.33
Stow Market	274	76–11	8.3	6.8	0.69	1.05
Bury	297	76–4	8.3	7.4	0.69	1.14
Beccles	103	78–0	8.3	2.6	0.69	0.39
Bungay	94	75–7	8.3	2.3	0.69	0.36
Lowestoft	135	76–0	8.3	3.3	0.69	0.52
Cambridge	634	77–4	8.3	15.7	0.69	2.43
Ely	64	71–7	8.3	1.6	0.69	0.24
Wisbeach	367	75–8	8.3	9.1	0.69	1.40
Third district						
Norwich	1739	77–11	8.3	25.6	0.69	6.65
Yarmouth	340	77–7	8.3	5.0	0.69	1.30
Lynn	1268	75–7	8.3	18.7	0.69	4.85
Thetford	50	76–0	8.3	0.7	0.69	0.19
Watton	10	73–0	8.3	0.1	0.69	0.04
Wymondham	76	76–0	8.3	1.1	0.69	0.29
East Dereham	10	74–0	8.3	0.1	0.69	0.04
Harleston	39	77–1	8.3	0.6	0.69	0.15
Holt	60	76–0	8.3	0.9	0.69	0.23
Aylesham	82	76–5	8.3	1.2	0.69	0.31
Fakenham	3030	74–8	8.3	44.6	0.69	11.59
Walsingham	87	76–4	8.3	1.3	0.69	0.33

	Quantity sold qtrs*	Average s d	% weight in district average	% district sales	% weight in national average	% national sales
Fourth district						
Lincoln	452	80–0	6.7	10.0	0.56	1.73
Gainsborough	391	81–6	6.7	8.7	0.56	1.50
Glamford Briggs	273	78–4	6.7	6.0	0.56	1.04
Louth	357	79–0	6.7	7.9	0.56	1.37
Boston	482	76–1	6.7	10.7	0.56	1.84
Sleaford	70	82–3	6.7	1.5	0.56	0.27
Stamford	702	80–1	6.7	15.5	0.56	2.69
Spalding	17	74–0	6.7	0.4	0.56	0.07
York	141	79–6	6.7	3.1	0.56	0.54
Bridlington	16	77–0	6.7	0.4	0.56	0.06
Beverley	447	74–7	6.7	9.9	0.56	1.71
Howden	172	78–0	6.7	3.8	0.56	0.69
Hull	651	73–11	6.7	14.4	0.56	2.49
Whitby	122	79–0	6.7	2.7	0.56	0.47
New Malton	226	72–10	6.7	5.0	0.56	0.86
Fifth district						
Durham	99	73–10	8.3	6.1	0.69	0.38
Stockton	81	75–6	8.3	5.0	0.69	0.31
Darlington	79	78–0	8.3	4.8	0.69	0.30
Sunderland	31	72–2	8.3	1.9	0.69	0.12
Barnard Castle	68	78–5	8.3	4.1	0.69	0.26
Wolsingham	45	80–0	8.3	2.8	0.69	0.17
Belford	48	64–0	8.3	3.0	0.69	0.18
Hexham	28	76–0	8.3	1.7	0.69	0.11
Newcastle	605	74–2	8.3	37.3	0.69	2.31
Morpeth	172	70–4	8.3	10.6	0.69	0.66
Alnwick	129	67–4	8.3	8.0	0.69	0.49
Berwick	230	64–11	8.3	14.2	0.69	0.88
Sixth district						
Carlisle	21	77–4	16.7	7.3	1.39	0.08
Whitehaven	36	80–0	16.7	12.5	1.39	0.14
Cockermouth	120	73–4	16.7	41.8	1.39	0.46
Penrith	90	81–2	16.7	31.4	1.39	0.34
Appleby	18	86–0	16.7	6.3	1.39	0.07
Burton	1	85–4	16.7	0.3	1.39	—

	Quantity sold qtrs*	Average s d	% weight in district average	% district sales	% weight in national average	% national sales
Seventh district						
Liverpool	89	76–4	8.3	10.5	0.69	0.34
Ulverstone	14	90–0	8.3	1.6	0.69	0.05
Lancaster	73	85–4	8.3	8.6	0.69	0.28
Preston	41	74–4	8.3	4.8	0.69	0.16
Wigan	71	77–8	8.3	8.3	0.69	0.27
Warrington	200	75–2	8.3	23.5	0.69	0.77
Manchester	—	—	8.3	—	0.69	—
Bolton	66	77–4	8.3	7.8	0.69	0.25
Chester	195	78–2	8.3	22.9	0.69	0.75
Nantwich	101	76–8	8.3	11.9	0.69	0.39
Macclesfield	—	—	8.3	—	0.69	—
Stockport	—	—	8.3	—	0.69	—
Eighth district						
Holywell	23	74–10	6.7	7.1	0.56	0.09
Mold	9	74–6	6.7	2.8	0.56	0.03
Denbigh	66	67–2	6.7	20.4	0.56	0.25
Wrexham	15	87–6	6.7	4.6	0.56	0.06
Llanrwst	12	87–2	6.7	3.7	0.56	0.05
Ruthin	88	81–5	6.7	27.2	0.56	0.34
Beaumaris	—	—	6.7	—	0.56	—
Llannerchymedd	10	71–0	6.7	3.1	0.56	0.04
Almwch	—	—	6.7	3.1	0.56	—
Carnarvon	71	81–0	6.7	21.9	0.56	0.27
Pwlheli	4	80–0	6.7	1.2	0.56	0.02
Conway	14	84–0	6.7	4.3	0.56	0.05
Bala	3	91–4	6.7	0.9	0.56	0.01
Corwen	8	92–6	6.7	2.5	0.56	0.03
Dolgelly	—	—	6.7	—	0.56	—
Ninth district						
Cardigan	3	94–4	8.3	1.7	0.69	0.01
Lampeter	—	—	8.3	—	0.69	—
Aberystwith	11	84–0	8.3	6.1	0.69	0.04
Pembroke	—	—	8.3	—	0.69	—
Fishguard	18	81–1	8.3	10.1	0.69	0.07
Haverfordwest	10	67–0	8.3	5.6	0.69	0.04
Carmarthen	59	78–4	8.3	32.9	0.69	0.23
Llandilo	3	96–0	8.3	1.7	0.69	0.01
Kidwelly	45	80–0	8.3	25.1	0.69	0.17
Swansea	12	82–6	8.3	6.7	0.69	0.05
Neath	16	87–4	8.3	8.9	0.69	0.06
Cowbridge	—	—	8.3	—	0.69	—

Tenth district	Quantity sold qtrs*	Average *s d*	% weight in district average	% district sales	% weight in national average	% national sales
Gloucester	79	80–2	6.7	6.4	0.56	0.30
Cirencester	225	85–0	6.7	18.3	0.56	0.86
Tetbury	79	77–6	6.7	6.4	0.56	0.30
Stow on Wold	60	85–0	6.7	4.9	0.56	0.23
Tewkesbury	16	80–8	6.7	1.3	0.56	0.06
Bristol	225	76–4	6.7	18.3	0.56	0.86
Taunton	180	77–3	6.7	14.6	0.56	0.69
Wells	40	78–0	6.7	3.3	0.56	0.15
Bridgewater	34	81–6	6.7	2.8	0.56	0.13
Frome	11	83–5	6.7	0.9	0.56	0.04
Chard	199	77–2	6.7	16.2	0.56	0.76
Monmouth	50	81–4	6.7	4.1	0.56	0.19
Abergavenny	9	92–0	6.7	0.7	0.56	0.03
Chepstow	8	71–11	6.7	0.7	0.56	0.03
Pontypool	11	89–6	6.7	0.9	0.56	0.04
Eleventh district						
Exeter	258	80–4	8.3	51.2	0.69	0.99
Barnstaple	64	73–4	8.3	12.7	0.69	0.24
Plymouth	16	76–0	8.3	3.2	0.69	0.06
Torness	14	72–10	8.3	2.8	0.69	0.05
Tavistock	44	81–11	8.3	8.7	0.69	0.17
Kingsbridge	15	75–9	8.3	3.0	0.69	0.06
Truro	19	77–4	8.3	3.8	0.69	0.07
Bodmin	21	74–8	8.3	4.2	0.69	0.08
Launceston	7	74–0	8.3	1.4	0.69	0.03
Redruth	11	80–0	8.3	2.2	0.69	0.04
Helstone	18	79–10	8.3	3.6	0.69	0.07
St Austell	14	77–4	8.3	2.8	0.69	0.05
Twelfth district						
Blandford	23	74–8	6.7	1.5	0.56	0.09
Bridport	159	75–0	6.7	10.3	0.56	0.61
Dorchester	130	71–5	6.7	8.4	0.56	0.50
Sherborne	31	77–9	6.7	2.0	0.56	0.12
Shaston	62	78–10	6.7	4.0	0.56	0.24
Wareham	54	74–2	6.7	3.5	0.56	0.21
Winchester	150	76–6	6.7	9.7	0.56	0.57
Andover	67	80–7	6.7	4.3	0.56	0.26
Basingstoke	237	78–3	6.7	15.3	0.56	0.91
Fareham	255	75–0	6.7	16.4	0.56	0.98
Havant	44	69–10	6.7	2.8	0.56	0.17
Newport	159	73–0	6.7	10.3	0.56	0.61
Ringwood	89	76–8	6.7	5.7	0.56	0.34
Southampton	6	64–0	6.7	0.4	0.56	0.02
Portsmouth	82	71–2	6.7	5.3	0.56	0.31

(2) *Districts*

	Quantity qtrs*	Average s d	% weight in national average	% national sales
First	4576	72–7	8.3	17.5
Second	4039	77–0	8.3	15.5
Third	6793	75–10	8.3	26.0
Fourth	4519	77–8	8.3	17.3
Fifth	1620	72–11	8.3	6.2
Sixth	287	80–6	8.3	1.1
Seventh	851	79–0	8.3	3.3
Eighth	324	81–3	8.3	1.2
Ninth	179	83–4	8.3	0.8
Tenth	1229	81–1	8.3	3.8
Eleventh	504	76–11	8.3	1.9
Twelfth	1551	74–5	8.3	5.5

Source: S.C. on Petitions Relating to Agricultural Distress (PP 1820, 11), Appendix A.

* Bushels have been omitted

Notes and Comments

WINTER CONFERENCE, 1979

The Winter Conference was held jointly with the Historical Geography Research Group of the Institute of British Geographers on 1 December 1979, at the Polytechnic of Central London, New Cavendish Street, London NW1. The meeting was attended by over fifty members and heard papers presented by Mr C J Harrison (University of Keele), 'Fire on the Chase: rural discontent in sixteenth-century Staffordshire'; Dr D J Ormrod (University of Kent), 'Grain riots and government policy in the eighteenth century'; Mr A Charlesworth (University of Liverpool), 'The English rural proletariat and its role in popular disturbances, 1750–1850'; and Mr M Cleary (University of Cambridge), 'Agricultural Syndicalism in the Massif Central, 1900–60'. Thanks were expressed to Drs A D M Phillips and D A Baker for organizing the Conference.

SPRING CONFERENCE, 1980

The Spring Conference of the Society will be held at Pantycelyn Hall, the University College of Wales, Aberystwyth, 14–16 April 1980. Speakers will include Dr John Broad, Dr Eric Kerridge, Professor Donald Winters, and Dr Forrest Capie. Dr Richard Colyer is acting as local conference secretary. Full details and booking forms should appear in this issue of the *Review*, but in case of any difficulty, members should write to the Secretary of the Society.

LAXTON

At the time of writing, there is still doubt about the future of the Nottinghamshire village of Laxton, which is threatened with sale as part of the Government's economy measures. Laxton was the central subject of the classic work by C S and C S Orwin, *The Open Fields* (Oxford, 1938). In order to preserve the village's unique open field system of farming, and to assist the tenants to meet the demands of the future, the estate was sold to the Ministry of Agriculture by the sixth Earl Manvers in February 1952. The Society joins with the tenants themselves in opposing the proposed sale and to this end passed the following resolution at its Winter Conference on 1 December 1979:

'The British Agricultural History Society views the proposed sale of Laxton with the gravest concern. The village and its open field system are a unique element of our historical heritage and must not be sacrificed for short-term economies. While welcoming Her Majesty's Government's assurances on the conditions of sale as a step in the right direction, it reaffirms its belief that the only sure means to preserve this vital element of Britain's heritage is to maintain its ownership in the hands of the nation.'

Copies of this resolution were sent to the Minister of Agriculture, the relevant opposition spokesmen, and to the Press.

(continued on page 30)