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Peasants and food security in England and Wales c.1300

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ABSTRACT

Food security is discussed with a particular focus on the decades either side of 1300, years characterised by poor weather and significant fluctuations in food availability, evident especially in the varied performance of grain harvests. Examining access to food and the vulnerability of the food supply in a period of particular pressure on food resources allows reflection on stresses on food availability in these decades as well as the range of approaches that individuals and institutions could employ in seeking to respond to them. The article discusses relative entitlement and contemporary perceptions of the same. While its focus is upon rural society and the experience of the peasantry, there will necessarily be some reference to the urban context, which cannot be separated from the experience of the countryside, and the attempts of institutions such as government to respond to issues relevant to food security in this period.

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In this article the ways in which food security was or was not achieved in medieval England will be reviewed as well as and the manner in which issues of food security can be tested for this period. The particular focus here will be on the decades either side of 1300, years that are characterised by poor weather and significant fluctuations in food availability, evident especially in the varied performance of grain harvests. This will allow reflection on the stresses that were placed upon food availability in these decades as well as the tactics that individuals and institutions employed to respond to them. The article presents a discussion of relative entitlement and contemporary perceptions of the same. While the focus will be upon rural society and the experience of the peasantry, there will necessarily be some reference to the urban context, which cannot be separated from the experience of the countryside, and the attempts of institutions such as government to respond to issues relevant to food security in this period. We can begin by describing food availability in the later thirteenth and early fourteenth centuries as well as the pressures that played upon food supply.

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Food and food availability

The main constituent element of most people's diet in England and Wales c.1300 was grain. While meat might also constitute an important element of diets, especially amongst elites, the diets of the relatively poor, including the bulk of the rural and urban population, did not include significant proportions of meat. Christopher Dyer's calculations of contemporary food budgets, chiefly arising from payments in kind to manorial labourers, *famuli*, indicates that the cereal component of their diets was especially significant, accounting for over 80 per cent of the diet as represented in food allowances.¹ The bulk of agricultural land was also given over to cereal production. Bruce Campbell proposes a total acreage of some 10.7 million acres, c.1300, with the area given to grain production accounting for almost 60 per cent by the same period. As a consequence, again according to Campbell's calculations and based upon a broad sample of yields, arable in England produced 7.4 million quarters of assorted grains, c.1300.² Based upon the principal use for each of the grains employed by Campbell in his calculation, and in order to allow for different degrees of wastage of cereals, he proposes an 'extraction rate' of 58 per cent for cereals, that is in terms of loss of kilocalories between production and consumption. This would generate a total availability, i.e. of processed grain, in the region of 2.5 to 3.4 million kilocalories per annum.³ David Stone has subsequently challenged aspects of these assumptions and, in a brief response to Campbell's calculation and based upon his own work on the degree of efficiency of demesne agriculture in this period, has estimated that, rather than total food production totalling a maximum of c.3.4 million kilocalories it came closer to 5.1 million kilocalories.⁴ Whatever the actual extent of available arable and grain produced, historians are of the general opinion that it was insufficient to sustain the population c.1300, a fact evidenced by volatility in food supply, as revealed by extreme fluctuations in basic food prices, especially cereals, and contemporary comment on such shortages and their consequences. The following factors all had major impacts upon food supply and availability: growing conditions and yield, and weather and climatic conditions, and population. We can briefly review each before considering in more detail the ways in which government and other institutions, including the market, sought to regulate food security in this period.

The threats to food availability

Poor grain yield is the first significant element in a combined story of particular vulnerability. In short, medieval England struggled to produce sufficient food for its population, a point to which we will also return below in discussing population itself. As Bruce Campbell and others have discussed, grain yields, while variable over time and by region, tended to be low and often were simply poor. In some parts of the country,

¹ C.C. Dyer, 'Changes in Diet in the Later Middle Ages: The Case of Harvest Workers', *Agricultural History Review* 36 (1988): 25–9, and especially 26 (Table 2).

² B.M.S. Campbell, *English Seigniorial Agriculture, 1250–1450* (Cambridge: Cambridge University Press, 2000), 388, 390.

³ Campbell, *English Seigniorial Agriculture*, 399.

⁴ D. Stone, 'The Consumption of Field Crops in Late Medieval England', in *Food in Medieval England: Diet and Nutrition*, eds. C.M. Woolgar, D. Serjeantson and T. Waldron (Oxford: Oxford University Press, 2006), 21; D. Stone, *Decision-Making in Medieval Agriculture* (Oxford: Oxford University Press, 2005).

notably eastern England, grain yields could be certainly high, relative to elsewhere, with soil quality allied to decisions in relation to land management conducive to greater productivity; however, the general recourse to poorer quality land for grain production had inevitable and negative consequences for overall productivity and also for livestock production.⁵ Even within counties with a generally higher productivity per acre, such as Norfolk, the variability was considerable, with net yield per acre for grains such as wheat and barley ranging from less than four bushels per acre to over 16 bushels per acre, while the net yield of rye and oats ranged from less than four bushels to 12 bushels per acre.⁶ Elsewhere, as for instance on the estates of the bishop of Winchester, with extensive landholdings in central southern England, gross barley yields in the thirteenth and early fourteenth centuries, though displaying considerable variability, seldom reached seven or eight bushels for one bushel sown, and a yield of nine bushels for one bushel sown was only identified five times in nearly 3000 harvests.⁷ In short, average grain yields tended to be low throughout the period and, indeed, remained so until the eighteenth century; the better medieval yields per acre were in effect approximately 10 per cent of modern yields.⁸ This deficiency, in terms of grain production irrespective of other factors, mattered greatly because, as has already been considered, grain was the most significant component of the medieval diet. Outside of elite households, meat consumption was relatively low, comprising possibly as little as two per cent of the kilocalories consumed in everyday diets at the end of the thirteenth century.⁹ Estimates of the kilocalories required to sustain individuals and populations vary; in constructing his population estimates for England c.1300, Campbell proposed an availability of 1500 grain-derived kilocalories per person based upon potential arable production on the basis that this amounted to 75 or 80 per cent of all required kilocalories consumed, and that total kilocalorie consumption was closer to 2000.¹⁰ Dyer has also suggested similar figures, estimating that a family of five comprised of two parents and three children would consume c.11,000 kilocalories per day, 9000 (80 per cent) of which would be supplied by grain. The other 2000 kilocalories were made up from two fitches of bacon per annum, milk and cheese, garden produce and ale.¹¹ As Campbell has noted, the variability in individual kilocalories is much dependent on the extent to which grains contribute to that diet; the greater the grain component, the lower the annual kilocalories consumed; in medieval England, c.1300, cereals, especially in the form of bread,

⁵ R. Britnell, *Britain and Ireland, 1050–1530. Economy and Society* (Oxford: Oxford University Press, 2004), 192–3.

⁶ Campbell, *English Seigniorial Agriculture*, 328. See also B.M.S. Campbell and Mark A. Overton, 'A New Perspective on Medieval and Early Modern Agriculture: Six Centuries of Norfolk Farming', *Past and Present* 141 (1993): 38–105 (70).

⁷ D.L. Farmer, 'Prices and Wages', in *The Agrarian History of England and Wales*, vol. 2: 1042–1350, ed. H.E. Hallam (Cambridge: Cambridge University Press, 1988), 737–8.

⁸ For modern yields, see, for instance, UK government published farming statistics for 2021, available at https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fassets.publishing.service.gov.uk%2Fgovernment%2Fuploads%2Fsystem%2Fuploads%2Fattachment_data%2Ffile%2F1041290%2FStructure-jun2021final-uk-16dec21.odt&wdOrigin=BROWSELINK. The wheat yield for 2021 is given as 7.8 tonnes per hectare, which converts to approximately 114 bushels per acre.

⁹ Dyer, 'Changes in Diet', 25–6; as Dyer makes clear, this figure is based on an allocation of almost 13,000 kilocalories to individual harvest workers in the mid thirteenth century and, given it far surpasses reasonable daily consumptions of 2000–3600 kilocalories, was no doubt intended as an allocation to be shared with others, such as family members and helpers.

¹⁰ Campbell, *English Seigniorial Agriculture*, 401.

¹¹ C. Dyer, *Standards of Living in the Later Middle Ages. Social Change in England, 1200–1520*. 2nd edn. (Cambridge: Cambridge University Press, 1998), 134–5.

dominated peasant diet in a manner that they did not a century and more later.¹² This dominance of cereals in everyday diets is also reflected in land use in this period with a tendency for managers of estates as well as peasant growers to favour arable over grazing, and in livestock prices, bovine, ovine and porcine, which typically lagged some way behind grain prices and did not show the same volatility even in the most difficult harvest years.¹³ That said, both lords and peasants recognised the importance of maintaining livestock numbers, even in a period of expanding arable, and sought to develop a range of techniques intended to achieve that.¹⁴

Weather and climate

In addition to the basic threat to food availability located in the incapacity of medieval agriculture, food production in the years either side of 1300 was also constrained by less than propitious growing conditions on account of the weather. There have been numerous, and increasingly sophisticated attempts to describe the changing patterns of weather and of climate across this period. The general consensus, gleaned from both documentary and archaeological evidence, is that the years either side of 1300 experienced especially difficult weather conditions, a product of variety of factors including a shift in climatic conditions as the medieval warm period, or climate anomaly, began to give way to a period of colder temperatures. In the later thirteenth and early fourteenth centuries, there is evidence of a declining global temperature as well as a similar pattern in the northern hemisphere.¹⁵ Poor weather generated both poor growing and harvest conditions. In 1257, according to Matthew Paris, sea inundations damaged farmland which had to be resown while in the following year a mild winter gave way to a very cold spring with damaging consequences for crop growth.¹⁶ This may reflect the beginnings of dramatic changes in climate and in weather patterns as Campbell has described.¹⁷ The onset of the Wolf Solar Minimum caused a downturn in global temperatures and, by the 1260s, oceans had begun to cool, and sea temperatures, currents, wind force and levels of precipitation to change.¹⁸ In reflecting on the consequences for those living in the British Isles, c.1300, Campbell notes,

... the weather appears to have become increasingly variable during the first half of the fourteenth century, with potentially grave consequences for societies whose populations were already pressing hard upon scarce agricultural resources.¹⁹

Alternating warm and cold ocean surface temperatures encouraged dramatic changes in weather patterns; the warming of the Atlantic Ocean surface temperature in the early

¹² Campbell, *English Seigniorial Agriculture*, 401–2; Dyer, *Standards of Living*, 157–8. Compare also C. Muldrew, *Food, Energy and the Creation of Industriousness: Work and Material Culture in Agrarian England, 1550–1780* (Cambridge: Cambridge University Press, 2011), chapters 2 and 3.

¹³ Farmer, 'Prices and Wages', 753–4.

¹⁴ Campbell, *English Seigniorial Agriculture*, 172–9.

¹⁵ B.M.S. Campbell, *The Great Transition. Climate, Disease and Society in the Late-Medieval World* (Cambridge: Cambridge University Press, 2016), 37.

¹⁶ H.R. Luard, ed., *Matthaei Parisiensis monachi Sancti Albani Chronica majora*. Rolls Series 57. 7 vols. (London: Longman and Co., 1872–83), 5: 630, 674.

¹⁷ Campbell, *Great Transition*, 198–230.

¹⁸ Campbell, *Great Transition*, 198.

¹⁹ Campbell, *Great Transition*, 203–4.

fourteenth century encouraged heavy summer rains with severely damaging consequences for grain harvests in northern Europe.²⁰ This impact is also recorded in detail and with some regularity in surviving manorial accounts, as Kathleen Pribyl has recently described.²¹ Further, while the recovery from devastation of grain harvests caused by a combination of factors, of which poor weather might be one significant element, could be relatively speedy, the damage wrought on livestock numbers was of longer-term consequence.²² The murrains occasioned by poor weather and climatic shifts left animals exposed to harsh conditions out of doors, diminished hay and fodder, and encouraged populations of disease-spreading parasites such as the liverfluke flatworm.²³ Recovery of herds and flocks from such ecological disasters, exacerbated also by poor management, took decades, with consequences not only for the direct supply from livestock but also the soil-enhancing benefits of manuring.²⁴ Philip Slavin has calculated that bovid stocking numbers on seigneurial estates could recover to their pre-epidemic numbers within 15 years of the 1319 outbreak, but that this was only observable in just over 50 per cent of identified instances. On other manors, herds could take a further 15 years or more, with almost a quarter of all observed herds never recovering their pre-1319 numbers.²⁵

Population and population structure

Estimates of population c.1300 range considerably. The lowest estimates, by Campbell, are based upon estimates of likely food availability and thereby the maximum sustainable population. He has estimated that population could not have been greater than 4.25 million. This estimate is also founded upon the important assessment that demesne and peasant cultivation were largely comparable.²⁶ David Stone, by contrast, has argued that the relative productivity of peasant agriculture meant that food, and especially grain production, was significantly greater than Campbell had proposed, and that a sustainable population, c.1300, was therefore likely to be larger, and in the region of 5.5 million.²⁷ This approximates more closely to Smith's earlier estimate for total population in the same period of c.6 million and also accords with detailed and recent work by Hugo Poutré who proposes a population of c.6.2 million at 1300, based on his own modelling of food production and peasant productivity.²⁸

Whatever the actual total size of population, there is though plentiful evidence that food resources underwent significant strain in this period; whether we adopt the lower

²⁰ Campbell, *Great Transition*, 205.

²¹ K. Pribyl, *Farming, Famine and Plague: The Impact of Climate in Late Medieval England* (Cham: Springer, 2017), 118–30.

²² Pribyl, *Farming, Famine and Plague*, 124.

²³ Campbell, *Great Transition*, 209.

²⁴ P. Slavin, 'The Great Bovine Pestilence and Its Economic and Environmental Consequences in England and Wales, 1318–50', *Economic History Review*, 2nd series, 65 (2012): 1239–66; Pribyl, *Farming, Famine and Plague*, 124; Campbell, *Great Transition*, 209–27.

²⁵ Slavin, 'Great Bovine Pestilence', 1251–2.

²⁶ Campbell, *English Seigneurial Agriculture*, 395–6.

²⁷ Stone, 'Consumption of Field Crops', 20–1.

²⁸ R.M. Smith, 'Demographic Developments', in *Before the Black Death: Studies in the 'Crisis' of the Early Fourteenth Century*, ed. B.M.S. Campbell (Manchester: Manchester University Press, 1991), 49; H. Poutré, 'English Population, 1086–1377. A Modelling Approach' (PhD diss., University of Groningen, 2023).

or higher estimates, the basic point is that population had reached and risked exceeding its sustainable maximum. This is measurable in both the extent to which prices for basic foodstuffs rose so significantly and fluctuated so greatly as well as in the associated evidence for a high population relative to food availability, illustrated also in the converse relationship of wages to prices, dramatically low real wages suggesting an abundance of people relative to resources.²⁹ The nature and structure of this population surplus matters greatly as it speaks to issues of relative entitlement and the particular vulnerability of the population. Taxation records offer some insight into the proportion of poor and needy in late thirteenth- and early fourteenth-century England; contemporaries associated those unable to pay taxation, in the form of lay subsidies, with poverty, as grants of taxation make clear. The majority of lay subsidies granted in this period include the stipulation that poorer members of communities, as identified by assessors, should not pay taxation, assessed on moveable goods, with some exemptions, with a general, but variable, minimum property requirement of 10s. for country-dwellers.³⁰ If, then, as Campbell and Bartley suggest, between one quarter and one-third of all 'households' were represented in the lay subsidies, then, depending on the estimate of early fourteenth-century population and the average number of members per household which is applied, the proportion of those not paying tax may have been in the region of 1,000,000 to 2,500,000.³¹

Confronted with the challenges of limited productivity, poor and variable weather and a changing climate, as well as a population that, by c.1300, has reached its medieval high-point and its limit as regards the resources capable of sustaining it, to what extent was medieval society capable of responding to that challenge? In the remainder of this discussion, the key parameters of that potential response will be set out and the strengths and weaknesses of such responses explored. We will examine these responses under three main headings: agriculture, institutions and the market, beginning with agriculture.

Agricultural responses

As Campbell and Overton note, 'the fundamental role of English agriculture was to feed the population.'³² Contemporaries did as much as they could both to ensure good food supply through the management of growing conditions, the best use of available resources and the reduction of waste. In terms of management of growing conditions, there was plentiful advice regarding best practice; instructional manuals, such as the *Seneschaucy* or Walter of Henley's *Husbandry* place considerable emphasis on close management of the estate's resources; this included not only management of those working

²⁹ Campbell, *English Seigniorial Agriculture*, 5; G. Clark, 'The Long March of History: Farm Wages, Population, and Economic Growth, England 1209–1869', *Economic History Review*, 2nd series, 60 (2007): 97–135.

³⁰ J.F. Willard, *Parliamentary Taxes on Personal Property 1290–1334: A Study in English Financial Administration* (Cambridge, MA: Mediaeval Academy of America, 1934), 87–8; for discussion of which see also P.R. Schofield, 'Searching for the Poor in the Medieval English and Welsh Countryside, 1290–1334', in *Les fruits de la terre. Études d'histoire médiévale offertes à Laurent Feller*, eds. M. Dejoux and others (Paris: Éditions de la Sorbonne, 2023, forthcoming).

³¹ B.M.S. Campbell and K. Bartley, *England on the Eve of the Black Death: An Atlas of Lay Wealth, Land, and Property, 1300–49* (Manchester: Manchester University Press, 2006), 329; P.R. Schofield, 'Approaching Poverty in the Medieval Countryside', in *Poverty and Prosperity in the Middle Ages and Renaissance*, eds. C. Kosso and A. Scott (Turnhout: Brepols, 2012), 95–111; C. Dyer, 'Poverty and Its Relief in Late Medieval England', *Past and Present* 216 (2012): 43.

³² B.M.S. Campbell and M. Overton, 'Production et productivité dans l'agriculture anglaise, 1086–1871', *Histoire et Mesure* 11 (1996): 263.

on the estate or its manors but also firm indications on purchase of seed corn and seeding rates.³³ Pribyl has recently used manorial accounts from eastern England to explore a key subtlety in seeking to maximise harvest, namely accurate identification of ‘the short phenological window of reap-ripe-state’ and adjustment of customary harvest start dates accordingly.³⁴ There were plentiful similar adjustments which could also be applied in order to maximise the grain harvest and also livestock production. David Stone, for instance, notes changes in management practice intended to increase grain yields but only in the more propitious of market circumstances, a point to which we can also return below.³⁵ So, for instance, Stone describes increased use of labourers to weed fields when the price of grain was likely to be high; by the 1330s such practices were diminishing as prices also fell and, with that diminution, as Stone suggests, so also grain yields fell. This is a point also noted by Campbell in comparing yield ratios across the fourteenth century, with landlords sowing less seed after c.1350 but also failing to secure as great a yield, with a reduced output per unit of land in comparison to that achieved in earlier decades.³⁶ It is also evident that use of foodstuffs was adjusted to reflect certain conditions; so, for instance, husbandry manuals encouraged introduction of new seed grain on demesnes rather than the use of seed from the local harvest.³⁷

In this respect, it is also important to consider the possibility that seigneurial productivity was actually lower than was peasant productivity in this period. Recently, a number of historians have tested the plausible assumption that peasants may have contributed more effort to the cultivation of their own land than they did that of their lord.³⁸ As already noted, David Stone challenged Campbell’s estimate of total agricultural production c.1300, and also did so on the basis that peasant productivity was greater than Campbell had assumed.³⁹ Evidence from management of arable and pasture makes clear that peasants thought long and hard about how best to maximise yields and make best use of their available resources; peasant adjustment of cropping strategies could vary considerably even within regions and in a manner that reflects local awareness of growing conditions and topography.⁴⁰ In the west Midlands, as Dyer has described, a variety of adjustments to land management can be observed in the first decades of the fourteenth century, including the temporary use of grazing for arable, through the practice of inhoking, or changes in cropping or field divisions; as Dyer explains the intention of changes of this kind was to maintain grazing, improve fodder production as well as a supply of manure for the soil while at the same time ensuring a steady production of better grain, such as wheat, as well as legumes with their nitrogen-fixing qualities.⁴¹

³³ D. Oschinsky, ed., *Walter of Henley and Other Treatises on Estate Management and Accounting* (Oxford: Clarendon Press, 1971).

³⁴ Pribyl, *Farming, Famine and Plague*, 61–4 (quote at 61).

³⁵ Stone, *Decision-Making*, 235–8, and below.

³⁶ Stone, *Decision-Making*, 235; also Campbell, *English Seigneurial Agriculture*, 326: ‘... the return on seed was greatest when the demand for grain was likewise at its maximum’; also, Campbell and Overton, ‘New Perspective on Medieval and Early Modern Agriculture’, 74.

³⁷ Stone, *Decision-Making*, 242.

³⁸ See, for instance, A. Sapoznik, ‘The Productivity of Peasant Agriculture: Oakington, Cambridgeshire, 1360–99’, *Economic History Review*, 2nd series, 66 (2013): 518–44.

³⁹ Stone, ‘Consumption of Field Crops’, 19–20; this is a proposition which has recently been explored in detail by Hugo Poutré in work as yet unpublished, Poutré, ‘English Population, 1086–1377’.

⁴⁰ C. Dyer, *Peasants Making History. Living in an English Region, 1200–1540* (Oxford: Oxford University Press, 2022), 161–2.

⁴¹ Dyer, *Peasants Making History*, 152–5.

The less extensive use of fallow, with a low intensity and partial cropping of fallow, is also found in early fourteenth-century peasant cropping strategies elsewhere, as for instance at Oakington (Cambridgeshire).⁴²

On a more basic level, contemporaries also sought to remedy production problems by extending the cultivated area. Over half a century ago, a major debate amongst medieval economic historians was founded upon the extent to which medieval people made greater use of marginal land in order to increase food supply. The ‘journey to the margin’, initially discussed by M. M. Postan and then explored by historians such as Barbara Harvey and Alan Baker, suggests that the acreage of poorer quality land increased as population expanded in the thirteenth century, with a subsequent reduction in marginal land as population growth slowed or even reversed.⁴³ It is certainly evident that poorer quality land was drawn into cultivation in the thirteenth and early fourteenth century. At Wakefield (Yorkshire) assarting of land at higher altitude, including moorland, has been noted for this period and the same developments are evident elsewhere as less productive land was turned to arable in a bid to sustain a burgeoning population.⁴⁴ Such efforts were, of course, limited in their benefit, not least because the return relative to the effort was effectively a diminishing one. Retreat from the margin, just like other adjustments (such as greater recourse to brewing of grain in the post-plague period),⁴⁵ illustrates a changed relationship between population and resources and a reduction in pressure in terms of food security.⁴⁶ That said, it is also important to recognise that the so-called margins were not necessarily defined only by relative soil quality and, as Mark Bailey has shown for the East Anglian Breckland, those who lived and worked in areas that were not best suited to grain production adjusted their regional economies to their particular circumstances and sought to maximise the benefits of their environment.⁴⁷ In fact, according to Bailey, such distinctive agricultural regimes were not evidently more vulnerable to food shortage but may have been better suited to mitigating risk.⁴⁸

As regards other actions intended to ensure an effective food supply, the threat of food waste was also managed through a range of approaches and responses. The gathering and storage of food both presented opportunities to contemporaries to maximise their resources but also indicate the kinds of inherent pressures on food supply and the consequent fragilities. The preservation of food, more a feature of wealthier households, provided some degree of safety net for winter and spring months, prior to the next harvest; while poorer consumers might access preserved fish, for instance, most lower order

⁴² Sapoznik, ‘Productivity of Peasant Agriculture’.

⁴³ A.R.H. Baker, ‘Evidence in the “Nonarum inquisitiones” of Contracting Arable Lands in England during the Early Fourteenth Century’, *Economic History Review*, 2nd series, 19 (1966): 518–32; Campbell, *English Seigniorial Agriculture*, 390.

⁴⁴ M. Stinson, ‘Assarting and Poverty in Early Fourteenth-Century Western Yorkshire’, *Landscape History* 5 (1983): 53–67; Dyer, *Peasants Making History*, 180–3.

⁴⁵ S. Broadberry and others, *British Economic Growth, 1270–1870* (Cambridge: Cambridge University Press, 2015), 281–2, and also below. The changed cropping patterns in London’s hinterland illustrate this changed relationship between grain and population, with an increased recourse to barley, as a brewing grain, in the post-plague period, an indication of reduced pressure on grain as, above all, a bread grain for basic sustenance, J. Galloway, ‘Driven by Drink? Ale Consumption and the Economy of the London Region, c.1300–1400’, in *Food and Eating in Medieval Europe*, eds. M. Carlin and J. Rosenthal (London: Hambledon, 1998), 92–8.

⁴⁶ Baker, ‘Evidence in the “Nonarum inquisitiones”’.

⁴⁷ M. Bailey, *A Marginal Economy? East Anglian Breckland in the Later Middle Ages* (Cambridge: Cambridge University Press, 1989).

⁴⁸ Bailey, *Marginal Economy?*, 200–22, 264.

consumption is likely to have been seasonal.⁴⁹ As such, managing an efficient production and gathering of foodstuffs, whether it be cereals, vegetables, fruit, or livestock, was essential. The reaping of grain was one instance whereby contemporaries could, through good practice, avoid significant waste; the author of the *Fleta*, c.1290, advises how best to reap to avoid loss of the crop at the point of harvesting.⁵⁰ Regulations on gleaning and reference to gleaning in court records and literary sources illustrate the practice of ensuring that whatever could be harvested should be harvested.⁵¹ The practice itself also reminds us that contemporaries were aware of the fine margins in terms of food availability and security; grain left to rot in the field was not to be tolerated.⁵²

Grain storage, discussed also by David Hinton in this special issue, is now considered to have been widely used.⁵³ This contrasts with an earlier view that the costs of storage tended to outweigh the benefits in the Middle Ages.⁵⁴ Large barns, often identified by single grain types, were a feature of the demesnes of the more sizeable estates and could be impressive constructions, both in their scale and in the security they offered. These barns were constructed in order to preserve grain on the sheaf before winnowing or threshing; the barns themselves were constructed in order to facilitate such processes, allowing the grain to dry on the sheaf before being threshed in the barn on surfaces constructed for the purpose. Threshed grain was then stored separately in granaries.⁵⁵ Investigation of purveyance records also makes clear that smaller producers, especially in urban settings, might store threshed grain, which was much less bulky, within their own housing, in a roof space, for instance, or solar.⁵⁶ In their discussion of grain storage as revealed through purveyance, Claridge and Langdon illustrate the use of smaller, and temporary, storage spaces by the king's purveyors, the purpose of which was to allow secure distribution of grain from one part of the realm to another; this usage may reflect a more general system of small-scale domestic storage. As Claridge and Langdon make clear, the intention was not to ensure longer-term food security through this process but rather to facilitate a speedy distribution in support of the needs of royal government, 'a system more suited for flexibility than insurance'.⁵⁷

In all of these respects, in certain years at least, medieval food producers were fighting a losing battle.⁵⁸ As discussed earlier, for example, storage and grain processing were

⁴⁹ C. Dyer, 'Seasonal Patterns in Food Consumption in the Later Middle Ages', in *Food in Medieval England*, eds. Woolgar, Serjeantson and Waldron, 201–14.

⁵⁰ H.G. Richardson and G.O. Sayles, eds., *Fleta*, vol. 2. Selden Society 72 (London: B. Quaritch, 1955), 236; see also W.O. Ault, 'By-Laws of Gleaning and the Problems of Harvest', *Economic History Review*, 2nd series, 14 (1961): 210.

⁵¹ W.O. Ault, *Open-Field Farming in Medieval England* (London: George Allen and Unwin, 1972), *passim*.

⁵² Ault, 'By-Laws of Gleaning', 210–17.

⁵³ D.A. Hinton, 'Barns, Granaries and Security: Crop Storage, Processing and Related Investment in Medieval England', in this special issue, *Meanings of Food in Britain and Ireland*, ed. C.M. Woolgar, *Journal of Medieval History* 49, no. 5 (2023).

⁵⁴ See, for instance, the debate, led initially by economists, on the management of risk in the medieval English countryside: S. Fenolteba, 'Risk, Transaction Costs, and the Organization of Medieval Agriculture', *Explorations in Economic History* 13 (1976): 129–51; D.N. McCloskey and J. Nash, 'Corn at Interest: The Extent and Cost of Grain Storage in Medieval England', *American Economic Review* 74 (1984): 174–87; J. Komlos and R. Landes, 'Anachronistic Economics: Grain Storage in Medieval England', *Economic History Review*, 2nd series, 44 (1991): 36–45.

⁵⁵ Hinton, 'Barns, Granaries and Security'; also, for example, N. Brady, 'Agricultural Buildings', in *The Oxford Handbook of Later Medieval Archaeology in Britain*, eds. C.M. Gerrard and A. Gutiérrez (Oxford: Oxford University Press, 2018), 263–5; J. Claridge and J. Langdon, 'Storage in Medieval England: The Evidence from Purveyance Accounts, 1295–1349', *Economic History Review*, 2nd series, 64 (2011): 1244.

⁵⁶ Hinton, 'Barns, Granaries and Security'; Claridge and Langdon, 'Storage'.

⁵⁷ Claridge and Langdon, 'Storage', 1257.

⁵⁸ Stone, *Decision-Making*, 235.

intended to minimise, as best as possible, loss of the harvest. No such process though can have operated without damage and waste; Broadberry and others calculate that post-harvest loss accounted for 10 per cent of the original harvest.⁵⁹ Storage of grain beyond a year, though feasible, was also considered to risk significant loss.⁶⁰ Seigneurial demesnes also became less productive during the early fourteenth century, a combination of reduced investment and a lessening of intensity in the face of difficult economic conditions, as well as challenges associated with poor weather and soil exhaustion.⁶¹ Errors in management of crises, often a consequence of resorting to customary practice but in a manner that exacerbated rather than reduced threats, can also be observed, as for instance in the spread of murrain as demesne managers sought to sell on diseased livestock.⁶² Reflection on peasant response to the challenges of agriculture in this period is important because it may, as has been suggested earlier in this discussion, reveal a more engaged and potentially more productive approach to farming than is to be found on the demesnes, which provide most of our information on medieval agriculture. There is also no doubt, as discussed above, that peasants invested greatly in the management of their land, including arable, pasture, gardens and woodland; as well as adjustments of the kind outlined above, peasants took great care in preparing seed, weeding, marling and pest control. Despite these efforts, as Dyer notes, it seems unlikely that yields were improved dramatically, even if small and potentially significant gains could be made.⁶³ In this respect, contemporary evidence points to a range of weaknesses that ultimately added to, or at least failed to reduce significantly, the insecurity of food availability. It is also worth noting that medieval society was not well placed to invest in its own labour productivity. Craig Muldrew's investigation of labour productivity in early modern England is highly relevant in this respect; Muldrew has identified labourers' calorific intake in the early modern period as more than twice that of the estimates for peasant diets c.1300, as described earlier in this discussion.⁶⁴ He proposes that the early modern economy, especially from the seventeenth century, was able to sustain greater productivity because of this significant calorific investment; with a lower per capita calorific intake in the later thirteenth and early fourteenth century, the available energy input that could be applied to food production was inevitably less. To what extent was an institutional response able to limit the impact of such weaknesses?

Institutional responses and their limits

Medieval society recognised the potential need to respond to food crises and to seek to manage food availability. Buchanan Sharp has outlined the variety of ways in which royal government in the thirteenth and fourteenth centuries sought to regulate food supply. Market regulations, for instance, aimed to control profiteering or the mis-selling of goods, especially of bread and ale. Assizes of bread and ale and statutes levelled

⁵⁹ Broadberry and others, *British Economic Growth*, 281–2.

⁶⁰ Claridge and Langdon, 'Storage', 1258.

⁶¹ Stone, *Decision-Making*, 235–44.

⁶² Campbell, *Great Transition*, 210.

⁶³ Dyer, *Peasants Making History*, 178–80.

⁶⁴ Muldrew, *Food, Energy and the Creation of Industriousness*, 162.

against forestallers were intended to protect consumers and secure just prices in the marketplace.⁶⁵ In this, Sharp contends, English monarchs, and especially Edward II, were attempting to meet a moral obligation to their subjects, and in particular the poorest and most vulnerable.⁶⁶ Further, Edward II's price-fixing ordinance of 1315 was one of a number of attempts to control the movement of prices in a period of inflation and, as with the others, it met with little or no success, as will also be discussed below.

Government prescriptions could be quite specific in regulating behaviour to maximise food availability and to minimise wastage. This is evident, for instance, in regulation regarding the best use of cereals during periods of relative shortage. Brewing reduced the kilocalorie content of cereals by about 70 per cent so the use of cereals in brewing was censured in high price years.⁶⁷ In January 1317 the deleterious effects of brewing were noted by government in a proclamation intended both to control ale prices and ensure that grain was reserved for baking in order to reduce the sufferings of 'the lower and poor people'.⁶⁸ This is also reflected in the cropping choices made by landlords, as for instance in the choice of poorer quality food grains, such as rye, in contrast to barley, a grain which could also be used in brewing.⁶⁹

We might also consider the role of community and of household as further instances of institutions capable of responding to some degree or other to issues of food security: to what extent did either show evidence of retrenchment or consistency of support in times of famine and dearth? To begin with community, there is evidence that community-based charity tended to retreat in the most difficult harvest years as food security was managed in favour of members of the community and not for the benefit of outsiders. Local court records and, more generally, bye-laws indicate a fear that scarce resources might be redistributed to non-residents. Warren Ault's gathering of bye-laws from a number of midlands and southern English manors suggests a general wariness directed at outsiders as well as a fear that food supplies were also at risk of some degree of pilfering.⁷⁰ The risk of misdemeanours of this kind, or at least the fear of such behaviour, appears to have increased in the more difficult harvest years, as concentrations of presentments regarding the illegal housing or support of those who were strangers to the village make clear.⁷¹

This may reflect a more general attitude to charity and the capacity of charitable action to meet the needs of those left vulnerable by food shortage. Medieval society recognised, as is well known, the benefit of charity which was seen as a Christian duty; at the same time, its extent was also conditional and was generally seen to be both limited and likely

⁶⁵ B. Sharp, *Famine and Scarcity in Late Medieval and Early Modern England. The Regulation of Grain Marketing, 1256–1631* (Cambridge: Cambridge University Press, 2016), 16–18, 28–32.

⁶⁶ Sharp, *Famine and Scarcity*, 32.

⁶⁷ Broadberry, and others, *British Economic Growth*, 281–2.

⁶⁸ H.C. Maxwell-Lyte, ed., *Calendar of Close Rolls, Edward II*, vol. 2: 1313–1318, 449; Sharp, *Famine and Scarcity*, 42–3. It is perhaps significant that, given the identified importance of bread in peasant diets in this period as noted above, the distinction made in this proclamation is between using grain either for bread or for ale with no acknowledgement of other uses, such as pottage.

⁶⁹ Galloway, 'Driven by Drink?', 96–8, and above.

⁷⁰ Ault, *Open-Field Farming*; Ault, 'By-Laws of Gleaning', 215–16.

⁷¹ See, for example P.R. Schofield, 'Dealing in Crisis: External Credit and the Early Fourteenth-Century English Village', in *Medieval Merchants and Money: Essays in Honour of James L. Bolton*, eds. M. Allen and M. Davies (London: Institute of Historical Research, 2016), 253–70; P.R. Schofield, 'The Social Economy of the Medieval Village', *Economic History Review*, 2nd series, 61, no. S1 (2008): 60.

to retreat to the boundaries of hearth and home in more difficult conditions.⁷² Contemporary charity is considered to have been piecemeal and largely insufficient, and was far from being ‘a comprehensive response to the problems of poverty’.⁷³ While monastic houses, for instance, did distribute alms and other donations to the poor, at special occasions but also throughout the year, the extent of this was variable and sometimes more symbolic than real. Though substantial numbers of poor people might be fed on occasions, as in Lacock Abbey’s annual distribution of a loaf and two herrings to each of 500 poor, such distributions were also often occasional.⁷⁴ The same may also be said for individual donations, as for instance by medieval testators; collectively donations to the poor must have provided some support but, unlike later attempts to manage a more regular flow of support, such as early modern Poor Laws, or the urban granaries established to provide a more consistent form of relief, charitable support c.1300 was typically fragile and insufficient.⁷⁵ The limits to the capacity of charity are also evident in the conventions associated with gleaning; as Warren Ault has discussed, bye-laws relating to gleaning seldom mention the poor directly, though they do stipulate that the more vulnerable, infirm and those unable to reap were those who were permitted to glean. Restriction on gleaning rights, including a jealous guarding of gleaning from the attentions of strangers and other outsiders, is a further reminder of the inelasticity of charitable forms of this kind.⁷⁶ Bas van Bavel and Alex Rjipma’s recent attempt to estimate the contribution of poor relief to the sustenance of the poor across early modern Europe suggests that, by 1500, a combination of donations to the poor from charitable institutions, bequests, access to commons and gleaning, and distribution of tithe, accounted for c.1.4 per cent of Gross Domestic Product (GDP).⁷⁷ Assuming a comparable proportion of GDP was given over to charity and support of the poor, then, given also a similarity of charitable forms c.1300 but an estimated lower per capita GDP and clear evidence for a lack of available surplus for the purchase of even basic foodstuffs, the real per capita distribution of informal and formal poor relief of this kind is likely to have been less than it was two centuries later.⁷⁸

This was also a period when, despite the fact, as we have seen, that government sought to ameliorate the potential suffering of poorer members of communities by limiting the taxation burden to those more able to meet it, poorer members of communities might be drawn into tax payment while the basic fact of repeated and onerous taxation served to limit resources available for redistribution to poorer sections of society. As already discussed, grants of taxation setting a minimum threshold of 10s. value on moveable goods meant that poorer families and households could and sometimes did escape taxation in

⁷² B. Tierney, *Medieval Poor Law. A Sketch of Canonical Theory and Its Application in England* (Berkeley, CT: University of California Press, 1959), 57.

⁷³ Dyer, ‘Poverty and Its Relief’, 48.

⁷⁴ C.M. Woolgar, *The Culture of Food in England, 1200–1500* (New Haven, CT: Yale University Press, 2016), 225–7.

⁷⁵ See, for a recent discussion of early modern poor relief which includes reflection on earlier approaches to relief, J. Dijkman, ‘Feeding the Hungry. Poor Relief and Famine in Northwestern Europe, 1500–1700’, in *An Economic History of Famine Resilience*, eds. J. Dijkman and B. van Leeuwen (London: Routledge, 2020), 93–111.

⁷⁶ Ault, ‘By-Laws of Gleaning’, 214–15.

⁷⁷ B. van Bavel and A. Rjipma, ‘How Important were Formalized Charity and Social Spending before the Rise of the Welfare State? A Long-Run Analysis of Selected Western European Cases, 1400–1850’, *Economic History Review*, 2nd series, 69 (2016): 171.

⁷⁸ For estimates of GDP, including reflection on the low base of GDP at the end of the thirteenth century, see Broadberry and others, *British Economic Growth*, 310–13.

this period. That said, there is also plentiful evidence that communities were prepared to include poorer individuals within taxation assessment and collection, irrespective of their total wealth. So, for instance, when a minimum threshold was not set, as in 1300 when a fifteenth was ordered to be levied,⁷⁹ the evidence of very small payments, lower than the amount typically collected in other years, suggests that the pool of available taxpayers had been increased to accommodate more of the poorer element within communities.⁸⁰ In other instances, we are aware from contemporary enquiries and complaints, as recorded by assizes established to review mismanagement of revenue-raising initiatives, that individual assessors and collectors were entirely capable of abusing their authority to the disadvantage of the impecunious.⁸¹ Finally, in this respect, it is important to note that the actual burden of taxation, both in the form of lay subsidies and prises and purveyance, increased greatly in the later thirteenth century, the proceeds from which were directed at military campaigns rather than welfare of the general population, with inevitable and negative consequences for disposable surplus and the redistribution of food supply to those in particular need.⁸²

Contemporary chroniclers also recognised that the response to famine and reduced food availability was conditioned by the relative wealth or security of the individual. John de Trokelowe, in an oft-quoted passage, and one of the more detailed discussions of the Great Famine of the early fourteenth century, writes as follows:

Therefore, with the dearth prevailing like this, both lay lords and ecclesiastics cut back their courts, withdrew customary alms, and reduced their households. As a result these people, thus removed from the courts, accustomed to leading comfortable lives, had no idea how to dig, were ashamed to beg; overcome by the need for food and drink, they were desperate for others' goods and turned to violence and plunder. And thus so many were turned into dishonest people, that they did not allow the honest folk to live in peace.⁸³

Allowing for biblical allusion,⁸⁴ a point also addressed below in reflecting on some of the more extreme manifestations of reduced food supply, the decision made by lay lords and ecclesiastics to reduce their households and withdraw alms speaks to a retrenchment consistent with reduced entitlements of the relatively vulnerable. Further work on food liveries to estate workers, such as *famuli*, might well provide a fuller

⁷⁹ Willard, *Parliamentary Taxes on Personal Property 1290–1334*, 88–9; for description of the lay subsidy, collected in 1301, and for discussion of adjustments to exemptions during the collection period, M. Jurkowski, C.L. Smith and D. Crook, *Lay Taxes in England and Wales 1188–1688*. PRO Handbooks 31 (London: Public Record Office, 1998), 25.

⁸⁰ Schofield, 'Searching for the Poor'.

⁸¹ J.R. Maddicott, 'The English Peasantry and the Demands of the Crown 1294–1341', *Past and Present Supplement* 1 (1975).

⁸² Maddicott, 'English Peasantry and the Demands of the Crown'; W.M. Ormrod, 'The Crown and the English Economy, 1290–1348', in *Before the Black Death*, ed. Campbell, 153. On the contemporary impact of warfare on famine in northern Europe, see for instance, S. Geens, 'The Great Famine in the County of Flanders (1315–17): The Complex Interaction between Weather, Warfare, and Property Rights', *Economic History Review*, 2nd series, 71 (2018): 1048–72.

⁸³ H.T. Riley, ed., *Johannis de Trokelowe et Henrici de Blaneforde Chronica et annales*. Rolls Series 28, no. 3 (London: Longmans, Green, Reader and Dyer, 1866), 93: 'Huiusmodi igitur fame praevalente, tam magnates quam religiosi curias suas restringebant, solitas elemosynas subtrahebant, familias suas minuebant. Unde illi a curiis sic amoti, vitam delictam ducere consueti, fodere nesciebant, mendicare erubescabant, penuria tamen cibi et potus devicti aliena sitiebant, caedibus et rapinis intendentes. Tot autem effecti sunt infideles, quod in pace vivere non permiserunt fideles.' For a translation of this and related sections of text, see also W.R. Childs and P.R. Schofield, eds., *The reign of Edward II, 1307–27* (Manchester: Manchester University Press, 2022), 72–5.

⁸⁴ Luke 16:3: 'Then the steward said within himself, "What shall I do? For my lord taketh away from me the stewardship. I cannot dig; to beg I am ashamed."'

contextualisation of any such reduction in resources. To date, there is some indication from manorial accounts of a changed allocation of food liveryes during years of poor harvests, less in terms of overall quantity than in the type of grain allocated.⁸⁵ At Hinderclay (Suffolk), for instance, there is evidence of significant fluctuation in grain liveryes from year to year, with evidence of substitution of poorer grains and legumes for more expensive grains during higher price years. This is also consistent with evidence for a tendency for grain prices to correlate positively during runs of years when harvests were relatively poor.⁸⁶

Different age groups within households were also likely to enjoy access to household resources to varying degrees. Where an individual was able to make his or her own contribution to a degree that allowed the individual to leverage access to a satisfactory share of resources, a household member could be relatively secure. So, for instance, as Christopher Dyer describes, elderly relatives were sometimes well placed to negotiate reasonably comfortable retirement agreements where they were able to 'trade off their land against a pension'.⁸⁷ Other members of households might be far more vulnerable, as Zvi Razi's discussion of the varied experience of the offspring of wealthier and poorer peasant families at Halesowen (Warwickshire) illustrates; not only were heads of poorer households more likely to die during periods of bad harvest, the life-chances of the children of such households, including opportunities to marry and to inherit, were greatly reduced.⁸⁸ In such circumstances, out-migration in search of opportunity elsewhere was often the sole recourse. The court rolls for the marcher lordship of Dyffryn Clwyd, for instance, include references to tenants in the early fourteenth century abandoning their holdings and heading east across the border into England in order to beg.⁸⁹ Such examples remind us that, in desperate situations, individuals might take radical steps to manage their own food security as best they could; as with much that has been discussed here, initiatives of this kind were obviously far from secure.

In similar vein, increases in criminal activity in poor harvest years also reflect pressure on limited resources as well as a failure of normal supply and distribution mechanisms. That such activity suggests basic need is indicated by the nature of such criminality – thefts of relatively small items of food, often carried out by women – and is activity consistent with that observed in episodes of food shortage from other periods. In Dyffryn Clwyd smaller thefts of grain are evident in poorer harvest years as is the increased conviction of women for theft;⁹⁰ Barbara Hanawalt has made the same observations in her examination of crime in the pre-plague English countryside. She notes both an upsurge in food theft during difficult harvest years as well as a tendency for women to be more often engaged in the theft of smaller household items and foodstuffs, though she only detects a slight rise in female engagement in food theft during famine years.⁹¹ Hanawalt

⁸⁵ Stone, 'Consumption of Field Crops', 22.

⁸⁶ P.R. Schofield, 'Respuestas a la carestía y al hambre en el mundo rural inglés en los siglos XIII y XIV', in *Crisis de subsistencia y crisis agrarias en la edad media*, eds. Hipólito R. Oliva Herrer and Pere Benito I Monclús (Seville: Universidad de Sevilla, 2007), 229–43.

⁸⁷ C. Dyer, 'Did the Peasants really Starve?', in *Food and Eating*, eds. Carlin and Rosenthal, 60.

⁸⁸ Z. Razi, *Life, Marriage and Death in a Medieval Parish. Economy, Society and Demography in Halesowen, 1270–1400* (Cambridge: Cambridge University Press, 1980), 39–40, 66–8.

⁸⁹ P.R. Schofield, 'Wales and the Great Famine of the Early Fourteenth Century', *Welsh History Review* 29 (2018): 166.

⁹⁰ Schofield, 'Wales and the Great Famine', 162–4.

⁹¹ B. A. Hanawalt, *Crime and Conflict in English Communities, 1300–1348* (Cambridge, MA: Harvard University Press, 1979), 120–2, 240–57.

is at particular pains to stress the relationship between higher grain prices and an increase in theft, and offers instances of activity which she considers consistent with reduced entitlements and desperation, including the theft of vegetables from neighbours' gardens or of bread from their ovens.⁹²

The most extreme manifestations of entitlement, namely competition for resources that spilled over into murder, are not evident to any significant degree in this period. While chroniclers, such as Trokelowe, suggest that desperation drove people to murder and even that parents consumed their children and prisoners turned upon their fellow prisoners in order to survive, the evidence of the criminal records and coroners' rolls does not confirm such accounts.⁹³ In fact, as already noted, chronicle descriptions of such extremes tend to reflect, as Julia Marvin suggests in discussing famine references in the *Vita Edwardi secundi* and the Bermondsey annals, their use of biblical reference more than they do accounts of actual or known incidents.⁹⁴ As Hanawalt also notes, evidence for infanticide, even during the most difficult harvest years, is extremely limited.⁹⁵ If such is the case, then the apparent limits to criminal activity, which may have typically stopped short of the most heinous of crimes, most likely speak to the extent and severity of food shortage in medieval England and Wales in this period rather than an unusual degree of restraint on the part of the medieval population.⁹⁶

The market and relative entitlements

One further indication that institutions failed to respond to the needs of the more vulnerable is to be found in market behaviour. We have already considered the ways in which institutional structures sought to control markets with an eye to regulation and restriction of untrammelled market activity. Here, instead, we can consider the ways in which, despite the better instincts of contemporaries that market structures should both exist and be used to control food availability, markets operated to the benefit of those with greater resources, leverage and power. In the first instance, this appears to be suggested by the fact that, more than once, medieval government had to concede its position, in either seeking to control food prices or encourage those with grain surpluses to set aside profit-maximising behaviour in favour of releasing grain on to the market to a more general benefit. So, as is well known, the price-fixing ordinance of 1315, aimed at controlling the price of certain foodstuffs, though not staples such as grain, was revoked a year later in February 1316.⁹⁷ Contemporary commentators expressed no surprise at the failure of the original ordinance, the Bridlington chronicler exclaiming,

⁹² Hanawalt, *Crime and Conflict*, 253.

⁹³ Riley, ed., *Trokelowe*, 95.

⁹⁴ See also Slavin, *Experiencing Famine*, 256–8, 292–305; J. Marvin, 'Cannibalism as an Aspect of Famine in Two English Chronicles', in *Food and Eating*, eds. Carlin and Rosenthal, 73–86.

⁹⁵ Hanawalt, *Crime and Conflict*, 157.

⁹⁶ On cannibalism during other famine events, see, for instance, C. O'Grada, *Famine. A Short History* (Princeton, NJ: Princeton University Press, 2009), 63–8.

⁹⁷ For the price ordinance, 1315, see C. Given-Wilson, ed., *The Parliament Rolls of Medieval England, 1275–1504*, vol. 3: 1307–27, ed. S. Phillips (Woodbridge: Boydell Press and the National Archives, 2005), Westminster Parliament of January 1315, and for its revocation, Lincoln Parliament, January 1316.

Look! What an amazing ordinance, and one not in accord with reason – namely that man should regulate goods for sale and fix a price for them; since it is most certainly evident that the fertility and sterility of the soil and of all plants and also every other thing that grows remains and stays in the sole power of the Divinity; therefore, of necessity, it follows that the price of every single thing follows not from the judgement of men but from the abundance of produce.⁹⁸

While ‘archbishops, bishops, earls, barons and others of the community’ had sought the control of prices for a range of foodstuffs on the basis that prices were ‘nigh intolerable to the great damage and injury of them and all others of the people within the same kingdom’, the subsequent retreat from such an attempt to control prices indicates an awareness of the limited capacity of the market to protect both the privileged consumer as well as those least able to pay.⁹⁹ Just as the Bridlington chronicler explained this as a manifestation of the power of God, so the more worldly author of the *Vita Edwardi secundi*, concerned that the price-fixing ordinance had prevented goods from coming to market, opined that

... it is better to buy dear than to find there is nothing to buy when you need it. For although scarcity makes produce dearer, subsequent plenty brings back a better time.¹⁰⁰

This fatalism in the face of economic forces beyond their control reflected a more general view that chronic conditions such as poverty were irremediable.¹⁰¹ Variable and restricted food availability and consequent food insecurity were recognised as inevitable.

An unfettered market, where profit for the seller was valued above support for the buyer, is also evident in the preparedness of those with surpluses, notably in grain, to withhold grain from the market until prices had risen. Grain factors and major grain producers, such as lords of the larger estates, managed the market in grain to their advantage. Especially in high price years, manorial accounts illustrate the slow release of grain on to the market.¹⁰² There is no doubt, as Davis has shown, that contemporaries were deeply critical of such behaviour and saw it as a moral failing of the highest order; at the same time such criticism reflects a reality in which behaviour of this kind was common, if not tolerated.¹⁰³ In April 1316, at one of the worst moments of the Great Famine, Edward II wrote to his bishops complaining at the practice:

Purchasable grain, from which our people will be able to be sustained, cannot be found in the said realm, mostly because some of the same realm, having grain in their granges in no small quantity, and they retain it thus and refuse to expose it for sale, so that later they may

⁹⁸ *Gesta Edwardi de Carnarvan auctore canonico Bridlingtoniensi*, in *Chronicles of the Reigns of Edward I and Edward II*, ed. W. Stubbs. Rolls Series 76. 2 vols. (London: Longman, 1882–3), 2: 47–8: ‘Ecce mirabilis ordinatio et dissona rationi, videlicet quod homo de rebus venalibus debent statuere, vel certum pretium assignare; cum certissime constat quod fecunditas et sterilitas telluris et omnium virentum, nec non et aliorum foetantium singulorum, in sola divinitatis potentia permanet et consistit; sequitur ergo necessario quod non secundum arbitrium hominum sed juxta fertilitatem fructuum sequitur pretium singulorum.’ For a translation of this text and associated texts, see Childs and Schofield, eds., *Reign of Edward II*, 69–70.

⁹⁹ Proclamation of the price-fixing ordinance in London, March 1315, Thomas Rymer, ed., *Foedera, conventiones, litterae, et cujuscumque generis acta publica, inter reges Angliae et alios...*, vol. 2, part 1 (London: Record Commission, 1818), 263 (*Calendar of Close Rolls 1313–1318*, 160).

¹⁰⁰ W.R. Childs, ed., *Vita Edwardi secundi* (Oxford: Oxford University Press, 2007), 120–1; also Sharp, *Famine and Scarcity*, 40.

¹⁰¹ J. Davis, *Medieval Market Morality. Life, Law and Ethics in the English Marketplace, 1200–1500* (Cambridge: Cambridge University Press, 2012), 224–5.

¹⁰² Stone, *Decision-Making*, 48–9; Farmer, ‘Prices and Wages’, 739–40.

¹⁰³ Davis, *Medieval Market Morality*, 117–20.

sell it more dearly. Because of this the poor and beggars of the said realm, not being able to find any who have the authority to provide food to them, because of this deficiency and scarcity of grain, daily die of hunger and starvation ...¹⁰⁴

Two generations earlier Matthew Paris had lamented the tendency of Londoners to intercept grain shipments in order to hoard grain and release it for sale at inflated prices.¹⁰⁵ Similar points can be made in relation to attempts to control forestalling or selling of bread and ale contrary to the assizes; in all such respects, the evident breaches of standards reveal a competitive and apparently rapacious edge to medieval dealing that led, inevitably, to winners and losers in terms of, inter alia, food security and food supply.¹⁰⁶ The inconsistent behaviour of other food and livestock prices, especially cheese and pigs, which failed to follow grain prices in the most difficult harvest years is a further reminder that certain foodstuffs were simply beyond the reach of poorer consumers in this period and there existed a differentiated access to food markets.¹⁰⁷

The competitive and acquisitive element that had attracted the king's censure impacted food availability in other ways. Competition for scarce resources led to rising prices, a point already noted; wages, however, failed to respond accordingly, with the consequence that medieval economic structures and especially markets in foodstuffs and in labour were simply unable to respond with any degree of adequacy. In the worst harvest years, real wages fell dramatically, as Gregory Clark has described, with wages reaching a unique nadir in 1316.¹⁰⁸ As we have already seen, contemporaries, as producers, were prepared to invest more effort into food production when the real price of the foodstuff was high; in such circumstances labour opportunities might increase, even with some increase in nominal wages, as Clark's wage data indicates for a very difficult year such as 1316, but the net effect for the poorer members of society remained the same, namely reduced food availability. In other words, there was some increased investment in grain production at times of potential relative shortage but any such investment was wholly and inevitably insufficient to face the challenges of food availability in the worst harvest years, as volatile price movements make clear. In such inelastic market conditions, where supply was so fragile, those with any kind of surplus to exploit appear to have done so and to have maximised their profits accordingly.¹⁰⁹ Control of wage rates was but one element of that profit maximisation.

Challenges to food availability and food security were also the product of other features of the prevailing market conditions in the decades either side of 1300. In particular, evidence from markets in land and inter-personal litigation indicates the same kinds of disparities in resource that allowed some to prosper while others foundered. In the later thirteenth and early fourteenth centuries, for instance, we find evidence of an increasingly competitive market in land in parts of England and Wales; amongst the peasantry, small units might be traded as part of a process of natural adjustment, but it is also

¹⁰⁴ T.D. Hardy, ed., *The Register of Richard de Kellawe, Lord Palatine and Bishop of Durham 1311–1316*. Rolls Series 62. 4 vols. (London: Longman and Co., 1873), 1118–20; a translation of the letter is available: Childs and Schofield, eds., *Reign of Edward II*, 68–9; see also Sharp, *Famine and Scarcity*, 41–2.

¹⁰⁵ Luard, ed., *Matthaei Parisiensis ... Chronica majora*, 5: 673.

¹⁰⁶ Davis, *Medieval Market Morality*.

¹⁰⁷ Famer, 'Prices and Wages', 753–4.

¹⁰⁸ Clark, 'Long March of History', 110.

¹⁰⁹ P.R. Schofield, 'The Market, Economic Growth and Famine in the Medieval English Countryside in the Early Fourteenth Century', *Quaestiones Medii Aevi Novae* 20 (2015): 269–84.

evident that wealthier peasants sought to take advantage of their neighbours by buying up additional acres as they became available. Associating relative measures of wealth, including taxation data, with evidence for land market activity illustrates the capacity of wealthier villagers to accumulate large holdings and, thereby, to exert some pressure on direct access to land and food production.¹¹⁰ The same may also be applied to other indices of personal economic interaction that are also suggestive of competition and acquisitiveness. So, most obviously, inter-personal litigation, whether in contract, debt, or trespass, is also illustrative of the power dynamics at play in the medieval village as well as the potential for an adverse redistribution of resources. Litigation over the unjust detention of cereals, for instance, shows evidence of increase in more difficult harvest years while litigation over debt also involved the inevitable withdrawal of cash and grain surpluses from communities.¹¹¹

Conclusion

The most immediate measure of food security, or insecurity, is to be found in the number of people who die from lack of access to basic foodstuffs.¹¹² For medieval England, c.1300, this is a difficult figure to calculate; estimates based on local records of deaths have encouraged historians to the view that, in the worst of the famine years during the Great Famine of the second decade of the fourteenth century, perhaps 10 to 15 per cent of the population succumbed.¹¹³ For other years identifiable with poor harvests, there is even less quasi-demographic data, or it is less conclusive; generally speaking, associating deaths with famine events in this period poses challenges for the historian. Importantly also, the number of deaths associated with famines or lesser dearths in this period should not be solely explained in terms of starvation occasioned by lack of access to food: famine events kill not only or even significantly because of starvation, but also on account of disruption, dislocation of local and regional populations, and the consequent spread of disease.¹¹⁴ The threats to food security of the kind outlined in this article illustrate both the factors, such as poor weather, limited agricultural productivity, and population growth, that challenged food security in this period, as well as the weaknesses inherent in medieval society and economy which left sections of that society exposed to risk and insecure access to basic resources. In England and Wales, c.1300, this insecurity was manifest in a range of ways, as outlined above; at the same time, as is also evident, institutions in

¹¹⁰ See, for example, W. Hudson, 'The Prior of Norwich's Manor of Hindolveston: Its Early Organization and Rights of the Customary Tenants to Alienate Their Strips of Land', *Norfolk Archaeology* 20 (1921): 179–214; R.M. Smith, 'Families and Their Land in an Area of Partible Inheritance: Redgrave, Suffolk 1260–1320', in *Land, Kinship and Life-Cycle*, ed. R.M. Smith (Cambridge: Cambridge University Press, 1984), 135–95; B.M.S. Campbell, 'Population Pressure, Inheritance and the Land Market in a Fourteenth-Century Peasant Community', in *Land, Kinship and Life-Cycle*, ed. Smith, 87–134; P.R. Schofield, 'Dearth, Debt and the Local Land Market in a Late Thirteenth-Century Suffolk Community', *Agricultural History Review* 45 (1997): 1–17; C. Clarke, 'Peasant Society and Land Transactions in Chesterton, Cambridgeshire, 1277–1325' (DPhil diss., University of Oxford, 1985), Chapter four.

¹¹¹ Schofield, 'Dealing in Crisis', 253–70; Schofield, 'Social Economy of the Medieval Village', 38–63.

¹¹² Modern definitions of food insecurity involve a range of measures based on the self-reported experience of those identified as lacking food security to some degree: How is Food Insecurity Measured? – Our World in Data, <https://ourworldindata.org/food-insecurity> (accessed 7 May 2023).

¹¹³ L.R. Poos, 'The Rural Population of Essex in the Later Middle Ages', *Economic History Review*, 2nd series, 38 (1985): 521.

¹¹⁴ C. O'Grada, 'The Ripple that Drowns? Twentieth-Century Famines in China and India as Economic History', *Economic History Review*, 2nd series, 61, no. S1 (2008): 17–19, and references there.

this period, of various kinds and scale were both aware of the reality of food insecurity but unwilling and often unable to confront the challenge posed by an insecure food supply.

Notes on contributor

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