

Goose management and rearing in late medieval eastern England, c.1250–1400*

by Philip Slavin

Abstract:

The present article discusses goose farming on late medieval English demesnes. The research is based on over 2,700 manorial (demesne) accounts from several eastern counties, including Essex, Suffolk, Norfolk, Cambridgeshire, Huntingdonshire and parts of the Peterborough hinterland. The paper discusses various strategies employed by lords and their reeves, chronological dynamics and geographic differences in rearing, disposal and consumption patterns. Finally, the place of the goose in the livestock trade is discussed. These aspects are linked to larger economic and ecological processes within the shifting environment of late medieval England.

Although pre-industrial diets in England were dominated by grain products in the form of bread, pottage and ale, ‘complementary’ foodstuffs, consisting of dairy products, fish and meat, and including poultry, played a significant role in consumption. Poultry husbandry in general, and goose farming in particular, have attracted little scholarly attention.¹ The present study

* I wish to thank Bruce M. S. Campbell of Queen’s University, Belfast and Tim Newfield of McGill University, Montreal, as well as two anonymous reviewers for their most helpful suggestions. All errors remain mine.

¹ M. Stephenson, ‘The role of poultry husbandry in the medieval agrarian economy, 1200–1450’, *Veterinary Hist.* 10 (1977–8), pp. 17–24; id., ‘The role of poultry husbandry in the medieval agrarian economy, 1200–1450’, *Ark* 14 (1987), pp. 378–81; J. Witteveen, ‘On swans, cranes and herons, I, swans’, *Petits Propos Culinaires* (hereafter *PPC*) 24 (1986), pp. 22–31; id., ‘On swans, cranes and herons, II, cranes’, *PPC* 25 (1987), pp. 50–9; id., ‘On swans, cranes and herons, III, herons’, *PPC* 26 (1987), pp. 65–73; id., ‘The great birds, IV, peacocks in history’, *PPC* 32 (1989), pp. 23–34; id., ‘The great birds: V, preparation of the peacock for the table’, *PPC* 36 (1990), pp. 10–20; A. MacGregor, ‘Swan rolls and beak markings: husbandry exploitation and regulation of *Cygnus Olor* in England, c.1100–1900’, *Anthropozoologica* 22 (1996), pp. 39–69; C. M. Woolgar, *The great household in late medieval England* (1999), pp. 111–65; P. Freedman, ‘Images of the medieval pheasant’, unpublished paper delivered at conference on ‘The chicken: its biological, social, cultural, and industrial history’, New Haven (2002) (I am grateful to Prof. Freedman for letting me read this unpublished paper); E. Schubert, *Essen und Trinken im Mittelalter* (2006), pp. 120–5; C. E. Jackson, *Peacock* (2006). For archaeological studies, consult U. Albarella and S. Davis, ‘Mammals and birds from Launceston Castle, Cornwall: decline in status and rise in agriculture’, *Circaea* 12 (1996), pp. 1–156; id., ‘They dined on crane: bird consumption, wildfowling and status in medieval England’, *Acta Zoologica Cracoviensia* 45 (2002), pp. 23–38; J. Pine *et al.*, ‘The excavation of medieval and post-medieval features at the rear of 42c Bell Street, Henley, Oxfordshire’, *Oxonienia* 64 (1999), pp. 255–74; I. Barnes and J. P. W. Young, ‘DNA-based identification of goose species from two archaeological sites in Lincolnshire’, *J. Archaeological Science* 27 (2000), pp. 91–100; D. Serjeantson, ‘Goose husbandry in medieval England and the problem of ageing goose bones’, *Acta Zoologica Cracoviensia* 45 (2002), pp. 39–54; N. Sykes, ‘The dynamics of status symbols: wildfowl exploitation in England, AD 410–1550’, *Archaeological J.* 161 (2004), pp. 82–105.



FIGURE 1. Map of demesnes represented in the study.

aims to fill the gap in the literature by outlining the place, extent and economic implications of demesne goose rearing within a wider context of the expansion and decline of direct demesne management in late medieval England.

Eastern England, and chiefly Norfolk, practised one of the most intensive agricultural regimes in late medieval England. In contrast to the pasture-dependant west and north, the mixed husbandry of the east was biased towards spring grains, allocating a large proportion of its arable to barley or dredge.² Advanced agricultural techniques, effective institutional arrangements and sensitive decision making by manorial reeves made eastern England more productive than any other region in England.³ Furthermore, despite the strong reliance on

Note 1 continued

For poultry archaeology on Romano-British sites, see S. Appelbaum, 'Agriculture in Roman Britain,' *AgHR* 6 (1958), p.75 and id., 'Animal husbandry,' in J. Wacher (ed.), *The Roman world* (2 vols, 1987), II, pp. 504–26.

² B. M. S. Campbell, *English seigniorial agriculture, 1250–1450* (2000), pp. 172–83; B. M. S. Campbell and K. Bartley, *England on the eve of the Black Death: an atlas of lay lordship, land and wealth, 1300–49* (2006),

pp. 209–30; M. Bailey, *Medieval Suffolk: an economic and social history, 1200–1500* (2007), pp. 79–86.

³ B. M. S. Campbell, 'Agricultural progress in medieval England: some evidence from eastern Norfolk,' *EcHR* 36 (1983), pp. 26–46; id., 'Arable productivity in medieval England: some evidence from Norfolk,' *JECH* 43 (1983), pp. 379–404; M. Bailey, *A marginal economy? East Anglian Breckland in the later middle ages* (1989), pp. 85–96.

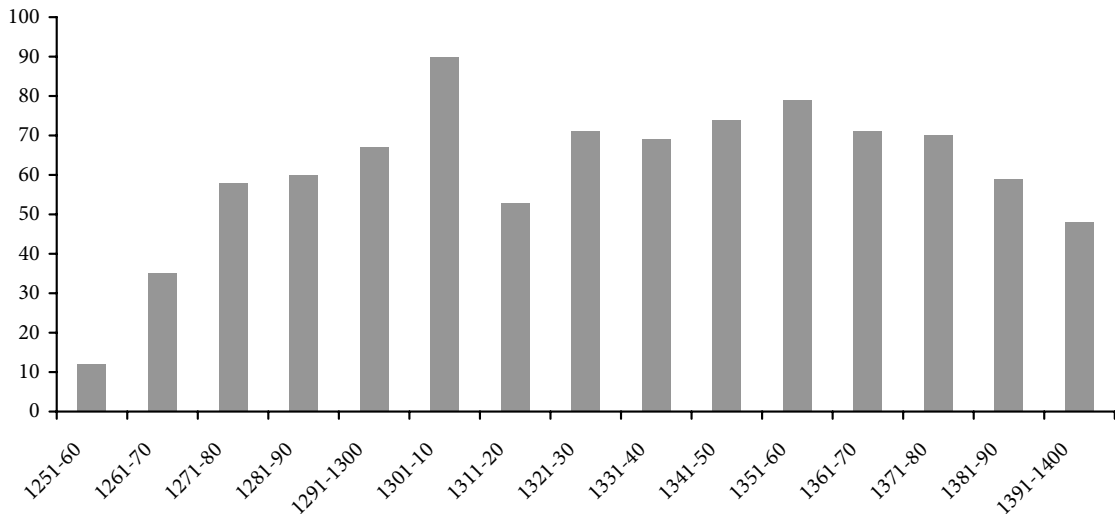


FIGURE 2. Number of demesnes represented in each decade, 1251–1400.

arable, livestock husbandry played an important role in the demesne agriculture of eastern England. One example is dairy-based production, which attained a high degree of commercialization before the last quarter of the fourteenth century.⁴

This study is based on over 2,700 manorial accounts from about 250 demesnes drawn from eastern England, covering Essex, Suffolk, Norfolk, Cambridgeshire and Huntingdonshire, as well as Peterborough's hinterland (Figure 1).⁵ This region was chosen because of the availability of comparatively long and comprehensive series of accounts, drawn especially from large houses, such as Norwich Cathedral Priory, Westminster Abbey, Peterborough Abbey and Ramsey Abbey. About 65 per cent of these demesnes were held by ecclesiastical magnates, the remainder by lay lords. The chronological distribution of the demesnes is uneven, too (Figure 2). For instance, only 12 demesnes are represented in the 1250s, while the first decade of the fourteenth century has an impressive figure of 90 demesnes. The manorial documents provide a unique glimpse into the arable farming and livestock husbandry of late medieval England. Rendered on an annual basis (mostly at Michaelmas) by manorial officials (bailiffs or reeves), these accounts record, in considerable detail, annual patterns of poultry disposal, including issue, mating, egg yields, purchase, sales, consumption, transfer and death. The rolls carefully distinguish between species, sexes and ages, presenting an excellent opportunity for the reconstruction of demographic patterns.

⁴ B. M. S. Campbell, 'Commercial dairy production on medieval English demesnes: the case of Norfolk', *Anthropozoologica* 16 (1992), pp. 107–18.

⁵ The accounts used in the database are deposited in various repositories, including The National Archives, Kew; the British Library, London; Norfolk Record Office, Norwich; Cambridge University Library, Cambridge;

Northamptonshire Record Office, Northampton; and the University of Chicago Library, Chicago. The Norfolk accounts are catalogued in Campbell, *English seigniorial agriculture*, App. 2. References to the Peterborough accounts can be found in Janet Martin, *The court and account rolls of Peterborough Abbey: a handlist* (1980), pp. 31–42.

I

The domestication of the goose gained ground with the advent of the Romans in the first century CE.⁶ As archaeological findings suggest, this was a British variety of greylag goose (*Anser anser*), known as the *cheneros*, which is mentioned in the *Natural history* of Pliny the Elder.⁷ Geese seem to have become especially numerous and specialized in the Saxon period and a number of Anglo-Saxon and Latin sources mention goose husbandry.⁸ It was not until the introduction of manorial accounts during the thirteenth century, however, that the extent and nature of goose husbandry becomes quantifiable.

Like dairy cattle, poultry were reared mostly for commercial purposes. To a large degree, poultry rearing was an adjunct to wider commercial contexts and decisions. In John Lydgate's poem *The debate of the horse, goose and sheep*, the goose argued for its importance and supremacy among the domestic animals.⁹ Geese were prized both for the flavour of their meat and their feathers, which were used for quill pens and arrows. They were also used as watchdogs to keep thieves away. Furthermore, the geese kept slugs and snails down. This was especially helpful in rainy seasons, when gastropods become active and was probably an issue during the continuous downpour of 1314–16.

The costs of keeping geese were somewhat higher than those of other poultry. First, unlike chickens, geese mate for life and it is impossible to pair one gander to more than four geese. By comparison, a cock can service as many as 20 hens. Second, geese are notorious destroyers of crops because they tend to feed on seeds and grass. This is illustrated in some literary sources. For instance, there is a reference to the devastation of the arable fields of Weedon (Northamptonshire) by wild geese in the *Life of St Werburgh*, composed by Goscelin of Canterbury at the end of the eleventh century.¹⁰ Also, in contrast with hen manure, goose dung – because of its wetness and content – tends to pollute the soil, damaging the fertility of arable fields.¹¹ Third, geese compete with other animals for pasture. This would especially have been an issue immediately before the Black Death, when the share of pasture was relatively reduced in many parts of eastern England. Finally, according to modern observations, fattening geese requires more calories than fattening other birds: more than twice as much as capons, for example.¹² It is likely that the situation was no different in the middle ages.

Although geese tend to feed on grassland, there are some patchy references to them also being given grain. For instance, in 1319–20 the officials of Hinderclay (Suffolk) allocated two

⁶ J. Kear, *Man and wildfowl* (1990), p. 26; Appelbaum, 'Roman Britain', p. 75.

⁷ Barnes and Young, 'DNA-based identification', pp. 91–100; Serjeantson, 'Goose husbandry', pp. 39–54.

⁸ Goose husbandry is mentioned, for instance, in King Ine's Laws (F. Liebermann, *Die Gesetze der Angelsachsen* (1903–16), pp. 88–122 and in several charters: see, A. J. Robertson (ed.), *Anglo-Saxon charters* (sec. edn, 1956), no. 104; S. E. Kelly (ed.), *Charters of St Augustine's Abbey Canterbury and Minster-in-Thanet* (1995), p. 25; F. E. Harmer (ed.), *Select English historical documents of*

the ninth and tenth centuries (1914), no. 1.

⁹ H. N. MacCracken (ed.), *The minor poems of John Lydgate* (Early English Text Society, old ser. 192, 1934), pp. 539–66.

¹⁰ *Vita Sanctae Wereburgae Virginis*, *Patrologia Latina* 155, col. 103B. I owe this reference to Prof. Joseph Goering, of the University of Toronto.

¹¹ V. Smil, 'Phosphorous in the environment: natural flows and human interferences', *Annual Rev. Energy Environment* 25 (2000), pp. 67–8.

¹² Stephenson, 'Poultry husbandry', p. 22.

quarters of barley chaff 'to sustain capons, geese, hens and pullets'.¹³ Similarly, two quarters and four bushels of barley proper were given to stots, geese and pullets of Eaton (Norfolk) in 1295–6.¹⁴ It is likely that geese were fed with barley to fatten them. This agrees with the recommendation of the contemporary Italian writer Pier de Crescenzi to fatten geese by feeding them with barley thrice a day.¹⁵

Very little is known about gooseherds supervising the demesne geese. Occasionally, manorial accounts mention *aucarii* or *custodes aucarum* under the *stipendia autumpni* section dealing with payments to harvest workers. Goose rearing, marketing and sales were mainly a late-summer and early-autumn activity and, hence, it is not surprising that the gooseherds appear together with other harvest workers. Some lords paid their gooseherds in cash, while some others provided them with food and drink. For instance, in the 1280s, the gooseherds of Hinderclay (Suffolk) received a meagre stipend of 6*d.* for their late-summer and early-autumn work.¹⁶ In Hindringham (Norfolk), between 10 August and 28 September 1310, the authorities of Norwich Cathedral Priory allocated 21 quarters of barley to be baked, brewed and distributed among various harvest workers, including one *aucarius*.¹⁷ At Martham (Norfolk), one *custos aucarum* received two bushels of barley in the autumn of 1321.¹⁸ It is likely the *aucarii* mentioned among other harvest workers were hired as temporary workers. As the iconographic evidence suggests, at least some gooseherds were male.¹⁹ On the other hand, contemporary agricultural treatises suggest that geese were supervised by manorial dairymaids, who were usually in charge of all the small livestock.²⁰

It should be remembered that, in contrast with sheep management or rabbit keeping, poultry rearing is labour intensive. Goose flocks, even small ones, were tended closely by gooseherds, separately from other avian flocks. Gooseherds' duties included such labour-intensive tasks as walking geese to pasture; protecting them from potentially hazardous animals, both wild and domestic; feeding them with grain and legumes, mostly for fattening; and conducting them to local markets. These labour inputs had serious economic implications after the Black Death, when the numbers of demesne geese declined until their virtual disappearance from the demesne around 1400.

To estimate the relative contribution of birds to the total livestock, we have to examine the poultry in the total context of animal husbandry. Because of the difference in importance, size, age, sex, financial value, weight and contribution of each bird to the total livestock, it is necessary to convert the recorded numbers of each bird species into 'livestock units'. No attempt has previously been made to convert medieval poultry into their 'unit' equivalents, but for the purpose of the present study, I shall employ the approach used by other scholars to convert domesticated animals into standardized livestock units. This methodology weights animals according to their relative sale prices.²¹ Because of vast gaps in relative prices between

¹³ Chicago UL, Special Collections, Bacon Roll 449.

¹⁴ Norfolk RO, Dean and Chapter of Norwich [hereafter NRO, DCN] 60/8/9.

¹⁵ *Ruralia Commoda*, III, p. 131.

¹⁶ Chicago UL, Bacon Rolls 419–23.

¹⁷ NRO, DCN 60/20/15.

¹⁸ NRO, DCN 60/23/18.

¹⁹ British Library (hereafter BL), Add. Ms 42130, fo. 169v, reproduced in J. Backhouse, *Medieval rural life in the Luttrell Psalter* (2000), p. 29, no. 17.

²⁰ D. Oschinsky (ed.), *Walter of Henley and other treatises on estate management and accounting* (1971), pp. 288, 338, 384, 424 and 473.

²¹ Campbell, *English seigniorial agriculture*, pp. 104–6.

TABLE 1. Total livestock distribution in Norfolk, 1251–1400 (per cent).

	<i>Horses</i>	<i>Oxen and Cattle</i>	<i>Sheep</i>	<i>Swine</i>	<i>Poultry</i>	<i>Total</i>
1251–60	18.5	69.3	6.34	4.72	1.12	100.00
1261–70	16.8	66.9	5.68	6.94	3.72	100.00
1271–80	20.3	62.9	8.31	4.83	3.65	100.00
1281–90	28.3	62.0	5.13	1.81	2.72	100.00
1291–1300	18.1	65.4	10.47	3.27	2.79	100.00
1301–10	19.5	54.7	17.64	4.54	3.68	100.00
1311–20	20.4	53.4	13.67	5.72	6.85	100.00
1321–30	25.4	52.3	14.07	5.61	2.61	100.00
1331–40	16.6	58.4	18.85	3.88	2.22	100.00
1341–50	16.8	59.9	14.16	4.96	4.19	100.00
1351–60	16.5	57.4	21.35	2.68	2.15	100.00
1361–70	15.4	59.8	14.39	4.63	5.78	100.00
1371–80	16.6	52.3	14.93	9.77	6.45	100.00
1381–90	17.5	60.3	15.69	4.19	2.27	100.00
1391–1400	14.5	52.4	27.54	3.22	2.29	100.00
Average	18.8	59.2	13.88	4.72	3.50	100.00

Source: Accounts database.

Note: The distribution is calculated in livestock units. Livestock units = [horses x 1.0] + [(oxen + adult cattle) x 1.2] + [immature cattle x 0.8] + [(sheep + swine) x 0.1] + [swans x 0.27] + [cygnets x 0.11] + [peacocks x 0.22] + [peachicks x 0.06] + [geese x 0.02] + [goslings x 0.01] + [(ducks + hens + cocks + chicks) x 0.01] + [capons x 0.02] + [pigeons x 0.002].

‘commercial’ and ‘decorative’ birds (that is, swans and peacocks) on the one hand, and livestock animals (horses, cattle, sheep and swine) on the other, it is necessary to treat each group separately. Conversion of animals and birds into these units reveals that the poultry sector was marginal when compared to other animal sectors. For example, in Norfolk, domesticated birds – including swans and semi-domesticated peacocks, but excluding pheasants, which were regarded as game – contributed about 3.5 per cent to the total livestock, by value (Table 1).

Within the domestic poultry sector, however, different formulae are used (Table 2). Here, the established units are calculated in relation to goose prices. As Figure 3 indicates, there was a large degree of correspondence in price movements of different birds. Goose prices rose by about 100 per cent between the 1250s (2*d.* per bird) and the 1310s (4*d.* per bird).²² Prices fell back in the 1320s, as a result of price deflation, and continued to decline up until the Black Death; they were especially low in the 1340s (around 3*d.* per bird). The decades after the Black Death saw a renewed rise in goose prices, reaching an unprecedented level in the 1360s, with one goose selling for around 4.3*d.* There was a further fall in the late 1370s, which continued into the 1380s

²² All poultry prices in this paper are extracted and calculated from manorial accounts.

TABLE 2. Mean poultry composition on East Anglian demesnes, 1261–1400.

Decade	In Heads				In Units ¹				Units (per cent)			
	Geese	Ducks	Chickens	Total	Geese	Ducks	Chickens	Total	Geese	Ducks	Chickens	Total
1261–70	8.0	0.4	29.4	37.9	8.0	0.2	14.6	22.9	35.17	0.89	63.94	100.00
1271–80	11.4	0.7	16.8	28.9	11.4	0.3	8.2	20.0	57.21	1.67	41.13	100.00
1281–90	8.6	0.6	18.6	27.8	8.6	0.3	8.6	17.5	49.07	1.76	49.17	100.00
1291–1300	5.2	0.1	21.6	26.9	5.2	0.0	11.0	16.2	32.04	0.18	67.78	100.00
1301–10	12.6	0.9	21.8	35.4	12.6	0.4	9.9	23.0	54.92	1.92	43.16	100.00
1311–20	7.3	2.3	28.0	37.5	7.3	1.1	13.7	22.1	32.88	4.98	62.14	100.00
1321–30	9.5	5.9	26.5	41.9	9.5	2.8	14.0	26.3	36.20	10.69	53.11	100.00
1331–40	9.0	2.7	20.5	32.1	9.0	1.3	10.5	20.8	43.34	6.21	50.45	100.00
1341–50	10.9	4.3	21.5	36.6	10.9	2.1	12.4	25.3	42.91	8.16	48.93	100.00
1351–60	6.8	2.1	16.3	25.3	6.8	1.0	10.5	18.3	37.23	5.59	57.18	100.00
1361–70	7.1	1.9	16.1	25.1	7.1	0.9	10.4	18.4	38.51	5.01	56.48	100.00
1371–80	6.0	2.2	17.6	25.8	6.0	1.1	11.6	18.7	32.19	5.76	62.05	100.00
1381–90	6.2	1.7	16.3	24.2	6.2	0.8	11.0	17.9	34.45	4.47	61.08	100.00
1391–1400	4.9	1.0	10.2	16.1	4.9	0.5	6.9	12.3	40.10	3.88	56.02	100.00
Average	8.1	1.9	20.1	30.1	8.1	0.9	10.9	20.0	40.44	4.37	55.19	100.00

Source: Accounts database.

Note: ¹ 'Domesticated' bird units: Geese x 1.0; goslings x 0.63; ducks x 0.48; capons x 0.84; hens and cocks x 0.50; chicks x 0.29.

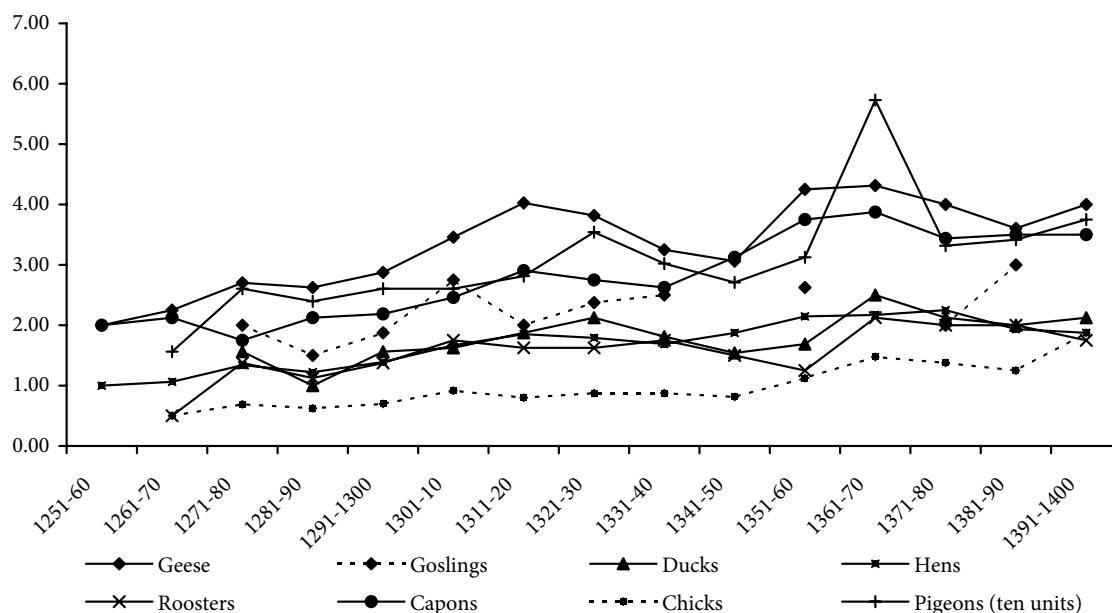


FIGURE 3. Poultry prices in eastern England (in pence per bird), 1251–1400.

Source: Accounts database

(3.6*d.* per bird). Prices returned to their 1370 level in the last decade of the fourteenth century (4*d.* per goose). It should be noted that these price movements closely reflect more general trends in grain and livestock prices of the period.

Within the egg sector, there was a vast gap in price between hen eggs and goose eggs. This gap exceeded the ratio between hen and goose prices: on average, goose egg prices were 5.5 times higher than the hen ones. In the 1330s, the price of goose eggs peaked (4*d.* per dozen), only to fall in the following decade (2.4*d.* per dozen) and rise again in the aftermath of the Black Death (3.5*d.* in the 1350s and 3.67*d.* in the 1360s). It is unclear if they were so highly valued for consumption or hatching, although there are occasional references to the dispatch of eggs to urban centres.

Having established the price movements and the livestock units of poultry, we must now look on the composition of demesne birds. Within the poultry sector, the goose was one of the most numerous birds, second only to the chicken. Table 3 establishes the proportions of poultry rearing. Over the entire period, geese are found on about three quarters of the sampled demesnes. The peak of goose rearing seems to have been in the 1320s, when 80 per cent of the demesnes stocked them. After the Black Death, the switch from direct demesne farming to leasing decreased the overall number of estates practising goose rearing. In the 1390s only half of the demesnes stocked geese.

The goose was also the most populous species within the larger *anatidae* family, which includes ducks, geese and swans. Ducks were rarely reared on more than a quarter of all the sampled demesnes in the pre-Black Death period. By the end of the fourteenth century,

TABLE 3. Percentage of demesnes rearing domesticated birds, 1261–1400.

<i>Decade</i>	<i>Swans</i>	<i>Peacocks</i>	<i>Geese</i>	<i>Ducks</i>	<i>Chickens^a</i>
1261–70	23.53	11.76	76.47	8.82	88.24
1271–80	17.65	7.84	66.67	7.84	64.71
1281–90	26.92	7.69	80.77	11.54	80.77
1291–1300	31.58	19.30	75.44	5.26	82.46
1301–10	19.48	19.48	76.62	20.78	81.82
1311–20	8.57	28.57	77.14	20.00	94.29
1321–30	16.00	18.00	80.00	28.00	86.00
1331–40	10.26	0.00	69.23	23.08	87.18
1341–50	10.87	2.17	71.74	21.74	89.13
1351–60	13.64	2.27	75.00	15.91	81.82
1361–70	6.98	0.00	76.74	20.93	79.07
1371–80	9.76	0.00	63.41	21.95	65.85
1381–90	6.45	0.00	61.54	17.95	61.54
1391–1400	9.09	0.00	50.00	14.29	53.57
Average	13.17	8.36	74.53	14.88	77.38

Source: Accounts database.

Note: ^a 'Chickens' includes hens, cocks, capons (castrated cocks) and chicks.

about 15 per cent of the demesnes kept ducks. Swans, which were considered 'decorative', were also kept for the table. The most valued and hence costly birds, swans were regarded as royal property and reserved, exclusively, for the nobility.²³ They were numerous in the late thirteenth century, especially in the 1290s, when about a third of the demesnes reared them. At the height of Edward I's reign, for example, swans were found on almost half of the demesnes on which geese were also kept: it seems to have been fashionable for lords to keep swans as a symbol of social prestige.

Within the domesticated bird sector, geese were the most numerous. Before the Black Death – with the exception of the last decade of the thirteenth century – one would expect to find slightly over ten geese on each demesne. After the pestilence, however, their average number per demesne decreased, reaching about four birds per demesne in the 1390s. This was chiefly because many demesnes were leased out, together with their poultry, and because goose rearing, as a whole, moved from the demesnes to the peasant sector, as we shall show below.

On the other hand, geese always constituted a significant portion of the total domesticated poultry. They accounted for over 60 per cent in the 1270s and 1280s. In the last decade of the thirteenth century, however, their overall population within the demesne fell, in terms of both number and poultry unit percentage. This was likely to have been the result of a seigneurial

²³ P. Coss, 'Knighthood, heraldry and social exclusion in Edwardian England', in P. Coss and M. Keen (eds), *Heraldry, pageantry and social display in medieval England* (2003), pp. 39–68; MacGregor, 'Swan rolls', p. 40.

decision to increase the share of chickens, some of which had been leased out to the tenants in the two previous decades. In that period, geese accounted for about 40 per cent of all commercial poultry. During the panzootic crisis of 1319–20, which killed about 65 per cent of cattle in England and Wales, some demesnes increased the overall number of both geese and other poultry.²⁴ This expansion occurred, for instance, on several Norfolk demesnes of Norwich Cathedral Priory, as well as some Huntingdonshire and Cambridgeshire demesnes of Ramsey Abbey. One of the immediate consequences of the cattle pestilence was the creation of surplus pasturage. Converting pasturage into arable could be an expensive task, which few lords could afford. Instead, some lords tried to fill the vacuum by expanding other livestock populations, including geese.²⁵ Once the crisis was more-or-less over, by the end of the 1320s, the number of geese was cut back again. After the Black Death, however, both their absolute numbers and their share within the sector gradually declined and, in the last decade of the fourteenth century, an average demesne had between three and four geese, still representing about 30 per cent of the total domesticated poultry stock. As Table 2 indicates, this decline was not limited to geese. In the 1390s, an average demesne expected to rear about 10 chickens, compared to some 30 in the 1260s. Again, this reflects the increasing tendency of the lords to lease their poultry flocks to their better-off tenants.

II

The scale and composition of poultry flocks varied not only from decade to decade, but also from demesne to demesne (Figures 4, 5, and 6). Although most demesnes tended to keep geese in rather modest numbers, the figures were different from place to place. For example, the Peterborough demesnes of Collingham, Eye, Walton, Warmington and Werrington kept well over a hundred geese in the 1300s.²⁶ On other hand, there were some demesnes that did not rear geese at all. These included Caistor-cum-Markshall, Costessey and Gnatingdon (Norfolk), Layham and Nayland (Suffolk).²⁷ In Cambridgeshire, goose husbandry was the specialization of Elsworth and Graveley. In Essex, the demesne with the greatest goose population was Dovercourt, followed by Feering Rectory and Westbury. In Huntingdonshire, the most prominent demesnes were Elton, Abbot's Ripton, Warboys and Weston. Most Norfolk demesnes

²⁴ On the cattle plague of 1319–20, see I. Kershaw, 'The Great Famine and agrarian crisis in England, 1315–22', *Past and Present* 59 (1973), pp. 3–50, at pp. 24–8; W. C. Jordan, *The Great Famine: northern Europe in the early fourteenth century* (1996), pp. 35–8; P. Slavin, 'Between death and survival: Norfolk cattle, c.1280–1370', *Fons luminis* 1 (2008), pp. 14–60, here pp. 41–53; id., 'The fifth rider of the Apocalypse: the Great Cattle Plague in England and Wales and its economic consequences, 1319–1350', in S. Cavaciocchi (eds), *Le interazioni fra economia e ambiente biologico nell'Europa preindustriale, secc. XIII–XVIII*. Proceedings of the 41st Study Week of the Fondazione Istituto Internazionale di Storia Economica F. Datini (2010), pp. 167–81; T. P. Newfield, in his

MA dissertation 'A great destruction of cattle: the impact and extent of epizootic disease in early fourteenth-century north-western Europe' (unpublished MA Thesis, University of Toronto, 2005); id., 'A cattle panzootic in early fourteenth-century Europe', *AgHR* 57 (2009), pp. 155–90.

²⁵ Slavin, 'Norfolk cattle', pp. 51–2.

²⁶ Northamptonshire RO (hereafter NoRO), FitzWilliam 233 (tabulated in K. Biddick, *The other economy: pastoral husbandry on a medieval estate* (1989), p. 127).

²⁷ TNA, SC 6/932/15–26 (Caistor-cum-Markshall); SC 6/933/13–15 (Costessey); SC 6/1002/8, 9, 14 (Layham); SC 6/1003/1–2 (Nayland); NRO, DCN 60/14/3–23, 62/1; Lestr/IC/2–3 (Gnatingdon).

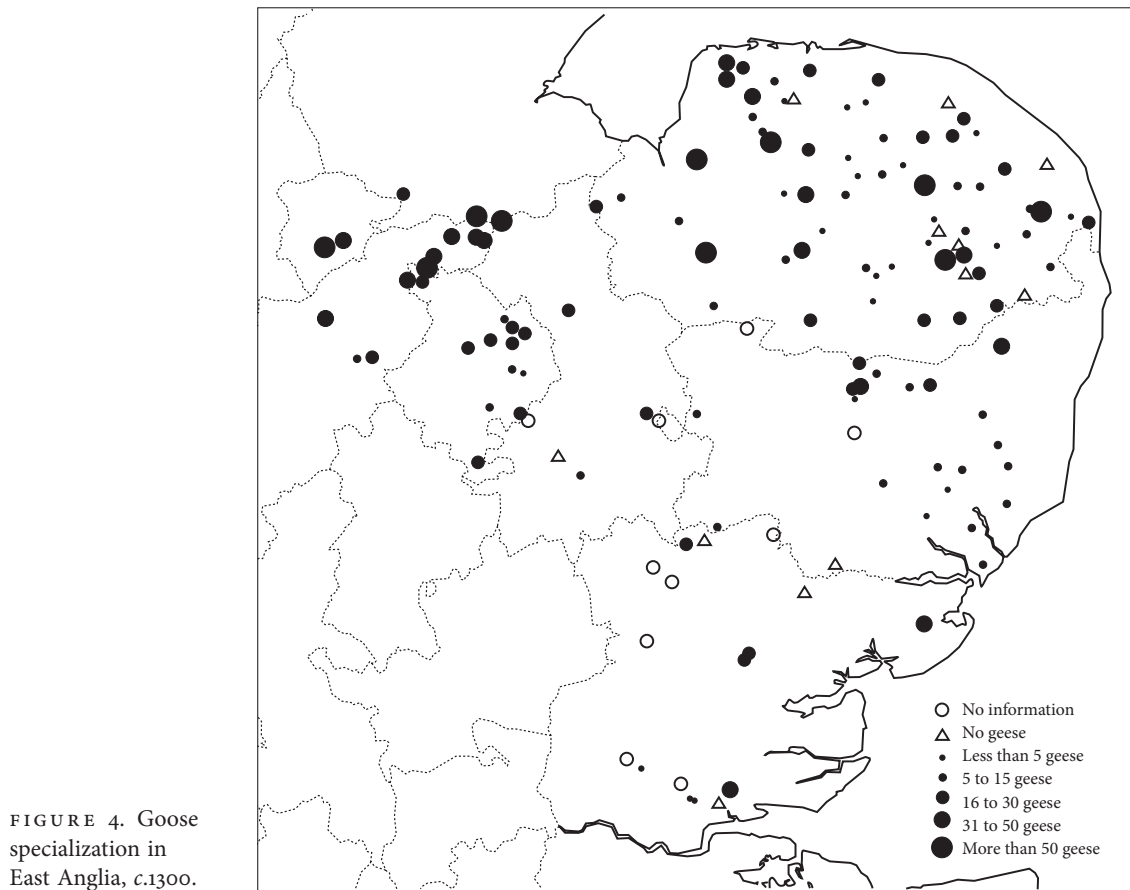


FIGURE 4. Goose specialization in East Anglia, c.1300.

cut back the number of geese in the later decades of the thirteenth century and, as a result, the county as a whole kept small numbers of geese. Similarly, Suffolk demesnes, with some exceptions, tended to house small goose flocks.

A quite different situation is found c.1340 (Figure 5). First, geese either disappeared from the demesne altogether or their population decreased when goose flocks were leased out together with dairies.²⁸ The manorial accounts hint that unmated geese were leased out with at least one gander to peasants who were to keep the entire issue (*exitus*) of goslings. In such cases, the newborn goslings were not reckoned in the annual accounts and, as a result, the overall number of geese was under-represented.

Second, we witness some clear shifts in the *loci* of goose specialization. Some demesnes, famed for large-scale goose rearing, gradually reduced their overall number of geese. The best examples were the Huntingdonshire demesnes of Ramsey Abbey, which reduced their numbers of geese from over 20 each to 10 or less.²⁹ Similarly, Hinderclay, once one of the most

²⁸ TNA, SC 6/836/7–12; DCN 60/13/22, DCN 60/20/22–23, 60/13/22–26, DCN 62/1–2; Chicago UL, Bacon Rolls 449 and 452.

²⁹ TNA, SC 6/874/2–9; SC 6/885/17–8; BL, Add. Rolls, 39801–3, 39805, 39808, 39809.

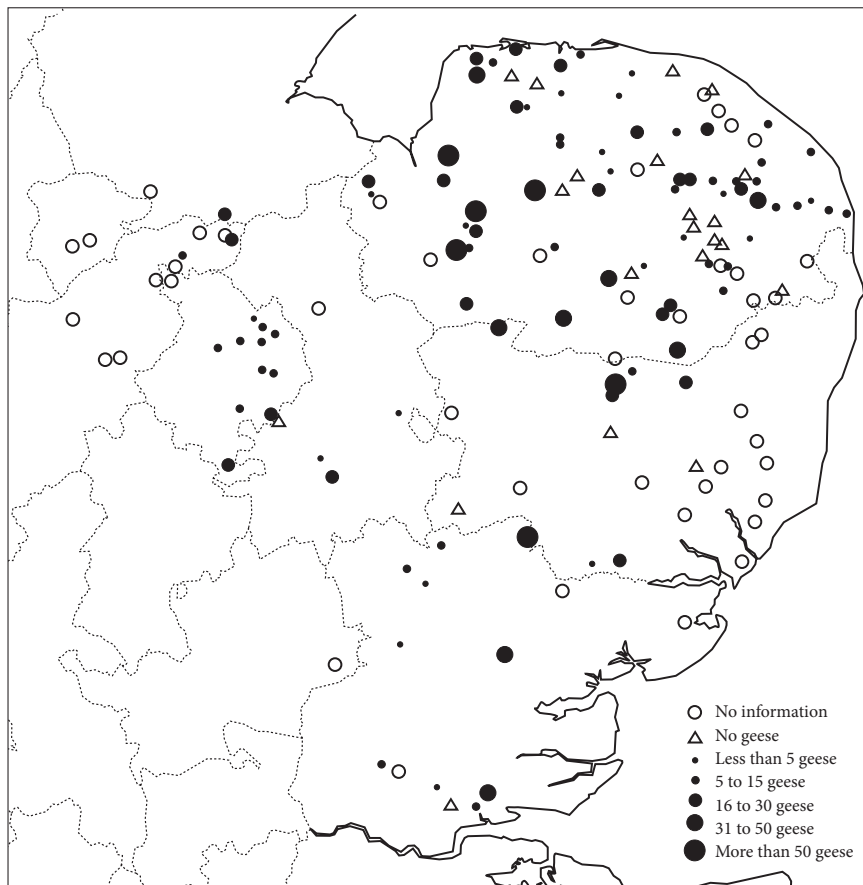


FIGURE 5. Goose specialization in East Anglia, c.1340

populous goose demesnes, cut back its number of geese to five, and this figure remained fixed until the eventual lease of the demesne around 1405 (with the exception of the 1360s).³⁰ On the other hand, some new *loci* of specialization emerged and expanded. These included Great Shelford (Cambridgeshire), Hindolveston and Sedgeford (north-west Norfolk), Rickinghall and Redgrave (Suffolk).³¹ Few could match the latter, which expanded its goose population from 35 to 97 birds, between the 1320s and 1340s.

By the close of the fourteenth century, the overall picture becomes more patchy, since more and more demesnes were leased out. But even those lords who kept their demesnes at hand seem to have had much less interest in goose rearing than their predecessors before the Black Death. Thereafter, they tended to keep geese in much smaller numbers, or eliminate the goose population altogether (Figure 6).³² The goose did not, however, disappear everywhere. Only

³⁰ Chicago UL, Bacon Rolls 435–50.

³¹ TNA, SC 6/1132/14–1133/2; NRO, DCN 60/18/11–31; DCN 60/33/9–28, Lest IB/16–21; DCN 62/2; BL, Add. Rolls, 63512–528; Chicago UL, Bacon Rolls 325–36; BL, Add. Rolls, 63372–5; Chicago UL, Bacon Rolls, 325–36. Unfortunately, the earliest surviving account from

Redgrave is from 1323–4, so we know nothing about its goose population before that year.

³² These included Great Shelford (Cambridgeshire) and Calthorpe (Norfolk), once prominent goose demesnes, TNA, SC 6/1133/2–4; NRO, Case 24, Shelf C.

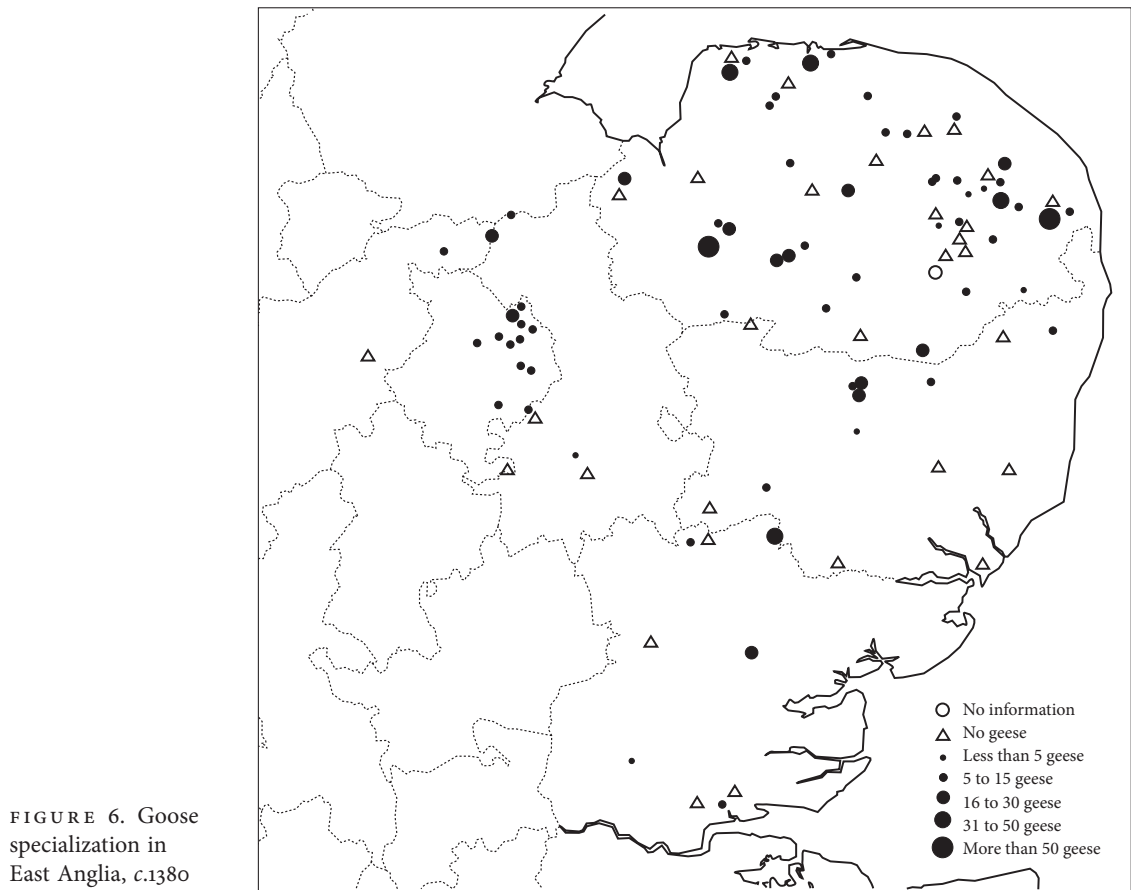


FIGURE 6. Goose specialization in East Anglia, c.1380

about a third of all the demesnes at hand had no goose flocks by 1380, while almost half of the demesnes still kept some geese, between 5 and 15 in number, as Table 4 indicates. There were still some demesnes practising intense goose husbandry and keeping geese in relatively large numbers.³³

The degree of specialization of each individual demesne depended largely on local environmental conditions. As we have seen, at the height of direct management, the most populous goose demesnes were situated on the Peterborough Fens. That this area abounded with geese and other *anatidae* is reflected in some late medieval sources. For instance, Hugh Candidus of Peterborough (c.1150) and an anonymous compiler of the late twelfth-century *Liber Eliensis* both spoke about abundant grassland and large numbers of geese and ducks in the region.³⁴ Between the *Domesday* survey of 1086 and the fourteenth century the area of grassland expanded, partially through piecemeal reclamation.³⁵ Large goose flocks are also found on coastal and estuarine

³³ Acton, Redgrave and Rickinghall (Suffolk), Upwood (Hunts.), Great Cressingham, Worstead (Norfolk) are such examples. TNA, SC 6/989/1–8; Chicago UL, Bacon Rolls 359–75 and 382–96.

³⁴ H. C. Darby, *The medieval Fenland* (1940), p. 21; Stephen Rippon, *The transformation of coastal wetlands* (2000), pp. 39–42.

³⁵ Darby, *Medieval Fenland*, pp. 61–85.

TABLE 4. Goose population size by flock size on East Anglian demesnes in 1300, 1340 and 1380 (per cent).

Period	Head of geese						Total
	>50	31-50	16-30	5-15	1-5	0	
c.1300	5.49	10.99	24.18	23.08	24.18	12.09	100.00
c.1340	3.17	3.17	12.70	31.75	28.57	20.63	100.00
c.1380	0.00	1.89	9.43	47.17	9.43	32.08	100.00
Average	2.89	5.35	15.44	34.00	20.73	21.60	100.00

Source: Accounts database.

demesnes of Norfolk and along the Waveney valley. The wet environment and abundant grassland of these regions provided ideal conditions for goose habitat and goose rearing. Quite the opposite environmental circumstances prevailed elsewhere in eastern England. Grassland was deficient in most of Norfolk and parts of west Suffolk, as well as east Essex.³⁶ These regions practised intensive regimes, relying on spring grains rather than pasturage for livestock fodder and, by doing so, ensuring that goose flocks remained small.

The physical proximity of demesnes to urban markets and centres, on the other hand, seems to have had only a limited impact on the geography of goose rearing. It is possible that the proximity of the Fenland demesnes to Peterborough encouraged their officials to stock large numbers of geese. Similarly, the Huntingdonshire demesnes of Ramsey Abbey, rearing dozens of geese, were located conveniently close to Huntingdon and St Ives. On the other hand, the Norfolk demesnes around the towns of Norwich, King's Lynn and Great Yarmouth housed small flocks of geese. The same situation is found in Suffolk, in the area around Bury St Edmunds. At the same time, however, some demesnes with large flocks were situated in commercially remote regions. These included the Suffolk demesnes of Bungay, Hinderclay, Redgrave and Rickingham and the Norfolk demesne of Hilgay.

The period under study sees first the expansion, then the stagnation and finally the decline of demesne goose husbandry. This corresponded to larger developments within the seigneurial economy, whose expansion continued in most cases until the 1310s. Thereafter we see the first signs of the reduction of the goose population on the demesne, partly because of more and more frequent leases of dairy houses and poultry flocks, partly because of seigneurial choice. These leases may have been the direct result of the agrarian and pastoral crisis of 1314-22, which saw a series of harvest failures and loss of at least 60 per cent of cattle country-wide. With some exceptions, the goose population on the demesne remained, roughly speaking, stagnant between c.1320 and c.1350. The major change, however, came with the Black Death. Bridbury considered the third quarter of the fourteenth century as the 'Indian summer' of demesne farming.³⁷ Indeed,

³⁶ Campbell, *English seigniorial agriculture*, pp. 73-5; p. 584; id., *The English economy from Bede to the Reformation* (1992), pp. 208-9; Stone, *Decision-making*, pp. 137-49.

³⁷ A. R. Bridbury, 'The Black Death', *ECHR* 26 (1973), pp. 81-120.

it was also the 'Indian summer' of the demesne goose. Omnipresent leases of demesnes and a retreat from direct management meant that goose rearing in particular, and poultry husbandry in general, had shifted from the demesne to the peasant sector.

III

The manorial accounts often identify the sexes and ages of birds. On the basis of these references, it is possible to reconstruct general demographic trends within various avian species. Most accounts clearly differentiate between ganders (*anser*) and female geese (*auce*). Furthermore, they note the number of mature and immature birds, and give statistics regarding unmated geese (*auce mariole* or *errarie*). The composition of goose cohorts was largely dictated by the life-cycle and sexual habits of these birds, which should be briefly explained here.

There is some evidence that medieval greylag geese laid eggs at the beginning of February, and not in March or April as their modern descendants do.³⁸ On average, a goose couple produces from four to six goslings per nest, as few as three and as many as twelve.³⁹ It takes 27 to 29 days for the goslings to hatch and some 60 to 80 days to come into full feather. During this period, they feed themselves on grass, plants and cereals – which are available in plenty in spring and summer – and grow fat rapidly. At this point, the fattened goslings are referred to as 'green geese' and are ready to be marketed.⁴⁰ Remaining goslings reach their sexual maturity between the ages of two and three. Like swans, most geese mate for life around the age of four. A large number of couples, although sexually active, do not breed. Instances of same-sex relationships, too, can sometimes occur. Some unmated geese, especially before reaching full maturity, engage in sexual activities with other unmated birds. A gander cannot be mated with more than three or four geese and hence, in order to ensure a steady reproduction, the ratio of geese to ganders must not exceed 4:1. After the age of five, goose fertility begins to decline, although the natural lifespan of domestic geese can exceed 30 years.⁴¹ This was certainly not achieved on medieval demesnes, as will be shown below.

As a rule, shortly after hatching, goslings would outnumber the adult geese in the flock. Between hatching (February or March) and fledging (May or June), when a substantial number of green geese were transferred from the demesne, goslings would typically constitute about two thirds of the total goose population on the demesne. Their number varied from demesne to demesne and from year to year, and it depended on the total goose population at a given time and place. In exceptional cases, goslings constituted a much smaller proportion of the population, as at Redgrave in the 1340s, when the total number of geese exceeded 100, of which only about 20 per cent were goslings.⁴² In other cases, the proportion of goslings was even higher than two thirds, as in 1327–8 at Eaton (Norfolk), where there were six mature geese and 36 goslings.⁴³

³⁸ Kear, *Man and wildfowl*, p. 35; Serjeantson, 'Goose husbandry', p. 41.

³⁹ J. Kear (ed.), *Ducks, geese and swans* (2 vols, 2005), I, pp. 276–80.

⁴⁰ Serjeantson, 'Goose husbandry', pp. 40–2.

⁴¹ Ibid.

⁴² Chicago UL, Bacon Rolls, 330–5; BL, Add. Rolls, 63372–5.

⁴³ NRO, DCN 60/8/24.

Some accounts, especially those from Suffolk estates of Bury St Edmunds and Norfolk demesnes of Norwich Cathedral Priory, also indicate the birth rates. On average, each goose produced 5.5 goslings, which agrees with both modern observations and medieval depictions. For instance, the Luttrell Psalter, produced in East Anglia in the early fourteenth-century, has an illustration of a female goose with five goslings.⁴⁴ There was, of course, some variation. For example, in 1350–1, six geese of Redgrave (Suffolk) produced only 28 goslings because eggs were destroyed during the hatch.⁴⁵ Hatch success could be jeopardized by factors such as animal attacks and vandalism. In some rare cases, no goslings were produced because geese could not brood (*quia mariole noluerunt sedere*), as happened in Taverham in the winter of 1339.⁴⁶

Few accounts, however, indicate how many eggs were laid during the season, in addition to those successfully hatched. Our patchy data indicate that there was usually a difference between the number of eggs laid and the number of goslings hatched. On average, each goose laid about ten eggs per season; naturally, this figure fluctuated from nest to nest. For instance, in Plumstead (Norfolk) in 1300, three geese laid as many as 60 eggs (that is, 20 eggs per goose).⁴⁷ Similarly high yields are reported at Worstead, Eaton, Taverham and Hindolveston, all in Norfolk.⁴⁸ As the available data suggest, only about 40 per cent of the eggs hatched and turned into goslings (*converta in aucas*); about a quarter of all eggs were lifeless and, consequently, became rotten during the brooding period (*putrefacta in sessione*); a further 35 per cent were removed before hatching and transferred elsewhere. In the majority of cases, they were sold at markets; in some instances, they were sent to supply the lords. For instance, in 1302, 40 goose eggs were sent to Norwich Cathedral Priory from Worstead.⁴⁹ Similarly, in 1316 the Great Hospital of Norwich received 60 goose eggs from its demesne of Calthorpe – possibly owing to widespread hunger brought about by the Great Famine.⁵⁰ It should be noted that the number of *laying* geese does not necessarily mean the number of *brooding* geese. Thus, at Plumstead in 1305, three geese produced a total of 24 goslings, but the eggs were brooded by only two geese (*cunata sub ij aucis xxiiij [oua]*).⁵¹ Medieval egg yields seem to have been somewhat lower than nowadays, when an average goose is expected to lay between 10 and 40 eggs, over the laying season.

Most accounts indicate the sex ratio within the goose flocks. According to our sources, an annual issue was produced out of a number of unmated female geese and ganders, with an almost invariable ratio of one gander per three unmated geese. The proportion of ganders and unmated geese within the mature goose population (that is, excluding goslings under one year of age) was dictated by the total size of the flock. Since most geese were transferred from the demesne at or around their 'nuptial age', each mature goose could not be expected to be reproductive for more than two seasons, specifically between their sexual maturity (age two at earliest) and their 'marriage' (age four at latest). This automatically reduces the maximum possible proportion of unmated (and reproductive) ganders and geese to no more than two

⁴⁴ BL, Add. Ms 42130, fol. 169v, reproduced in Backhouse, *Medieval rural life*, p. 29, no. 17.

⁴⁵ Chicago UL, Bacon Roll 336.

⁴⁶ NRO, DCN 60/35/27.

⁴⁷ NRO, DCN 60/29/14.

⁴⁸ NRO, DCN 60/39/4; DCN 60/35/27; DCN 60/8/28; DCN 60/18/34.

⁴⁹ NRO, DCN 60/39/4.

⁵⁰ NRO, Case 24, Shelf C.

⁵¹ NRO, DCN 60/29/15a.

TABLE 5. Composition of goose outgoing on demesnes, 1250–1390.

<i>Decade</i>	<i>Sold</i>	<i>Lord's expenses</i>	<i>Unforeseen losses</i>	<i>Sent to lord</i>	<i>Consumed</i>	<i>Died</i>	<i>Other</i>	<i>Remaining</i>	<i>Total</i>
1261–70	21.38	10.18	0.00	5.07	16.27	5.68	0.18	41.24	100.00
1271–80	17.35	3.03	0.00	11.96	19.63	3.11	1.66	43.26	100.00
1281–90	26.18	0.44	4.98	0.00	25.71	4.21	1.47	37.00	100.00
1291–1300	57.68	2.36	0.00	0.00	22.56	3.59	0.46	13.35	100.00
1301–10	59.30	3.88	0.22	0.00	18.07	4.97	0.70	12.86	100.00
1311–20	53.59	7.07	0.45	3.26	13.75	2.89	0.46	18.53	100.00
1321–30	42.41	6.91	0.50	3.39	20.35	2.95	0.20	23.30	100.00
1331–40	32.93	8.33	0.84	8.85	15.78	3.16	0.32	29.79	100.00
1341–50	33.40	4.56	0.00	0.00	35.03	2.05	0.07	24.88	100.00
1351–60	55.02	11.02	0.00	0.00	21.92	0.00	0.00	12.03	100.00
1361–70	53.41	5.97	0.00	3.21	13.25	6.17	0.97	17.02	100.00
1371–80	42.97	9.60	0.00	1.62	19.72	6.64	1.12	18.32	100.00
1381–90	20.99	7.10	4.09	1.32	19.97	1.32	9.15	36.07	100.00
Average	37.88	9.12	0.79	2.76	19.38	3.45	1.30	25.32	100.00

Source: Accounts database.

thirds of the total mature goose population. Furthermore, some older, and presumably mated, geese were still kept on the demesne, as some accounts indicate.⁵² Fortunately, many accounts specify the number of unmated ganders and geese within the total flock. On average, unmated ganders and geese together constituted about 65 per cent of all mature geese (about 15 and 50 per cent, respectively), while the remaining 35 per cent consisted of younger geese, aged between 6 months and 2.5 years, as well as some older mated geese.

Death rates depended on a number of factors. First and foremost, the goose was a highly commercial bird, kept mostly for fattening and consequent sale and consumption. And, each year, a certain number of geese were butchered on the demesne for local consumption. As our accounts indicate, the birds were slaughtered around harvest time (*in autumpno*). Over the entire period, butchery and consumption accounted for almost 20 per cent of total goose outgoing (Table 5). The figures did not fluctuate much from decade to decade, but some regional differences were considerable. For instance, almost half of the total goose flock was consumed in Sedgeford in the 1290s, while in the same decade the tenants of Taverham butchered less than 10 per cent.⁵³ The reeves of Bury St Edmund's demesnes, on the other hand, sent the larger part of the geese to local markets, and left very little to be consumed on the demesne. Unfortunately, our sources do not specify the age of geese butchered or consumed, but these were undoubtedly older birds.

⁵² Chicago UL, Bacon Roll 434.

⁵³ NRO, DCN 60/33/9–13; Lest IB/16; DCN 60/35/11–13.

Apart from butchery, the accounts record the number of deaths. The death rates were exceedingly low, just over 4 per cent on average (Table 6). In the majority of cases, the rolls do not specify the exact cause of death. Select accounts indicate that in some cases the geese were killed by other animals. For instance, in 1318–9 three geese were devoured by foxes (*devorantur per gupillos*) in Hindolveston.⁵⁴ Vulpine attacks occurred mostly on demesnes close to woodland and forests, such as Hindolveston, Taverham, Gateley and Thorpe Abbots. There is no doubt that both the lords and their tenants were concerned about sudden incursions of the foxes and the image of the fox attacking its avian prey was a widespread motif in late medieval English culture.⁵⁵ The hazard of the fox was immortalized in Geoffrey Chaucer's *Nun's priest's tale* (c.1392), where geese and ducks, stricken by terror, flew into the trees, when they saw a fox carrying away an old widow's cock.⁵⁶ Other animals reported to have attacked geese included pigs, dogs, and peacocks.⁵⁷

Available evidence indicates that such attacks were very rare and that they constituted less than one per cent of all outgoings. This suggests that geese were well kept and watched closely by local gooseherds. The majority of fatalities came from elsewhere and there can be little doubt that disease accounted for at least a part of all mortalities. Geese today are prone to a variety of avian diseases, such as goose parvovirus (GPV), avian influenza (AI, or avian flu), and Newcastle disease (ND).⁵⁸ So far, no attempt has been made to study poultry diseases from a historical perspective, perhaps because medieval documents do not describe symptoms of the diseases. Furthermore, contemporary agricultural treatises, such as the late thirteenth-century *Husbandry* and Pier de' Crescenzi's *Ruralia commoda* (1305–9) do not speak about goose diseases, or attempts to cure them.⁵⁹ Nevertheless, our manorial accounts indicate that there were isolated outbreaks of goose mortality, sometimes on a large scale. For instance, in 1273–4 at Newton-by-Norwich, fourteen geese died, out of the 65 on the demesne.⁶⁰ Between 1291 and 1294, some unknown avian disease ravaged the manor of Hinderclay (Suffolk), killing about a quarter of its total goose population.⁶¹ Again in 1306–7, an additional 25 per cent of the geese died.⁶² In Plumstead (Norfolk), seven geese out of the 17 on the demesne perished in 1320–1.⁶³ What is remarkable here is that the mortality was reported only in the geese, while other avian species seem to have been spared altogether in these years. Conversely, there are no signs of goose mortality when sudden chicken epizootics broke out, as happened in 1254–5 at Broughton (Hunts.), 1277–8 at Hallingbury (Essex), 1320–1 at Clare (Suffolk) and 1372–3 at Mundham (Norfolk).⁶⁴ From all this we might conclude that goose epizootics (1) broke out on a local scale; and (2) were confined to flocks only.

⁵⁴ NRO, DCN 60/18/21.

⁵⁵ Fox attacks on domestic birds, geese in particular, continue to be a serious concern for British farmers today. See, for example, R. L. Moberly, P. C. White and S. Harris, 'Mortality due to fox predation in free-range poultry flocks in Britain', *Veterinary Rec.* 155 (2004), pp. 48–52.

⁵⁶ D. Pearsall (ed.), *The nun's priest's tale* (1983), pp. 244–60.

⁵⁷ NRO, DCN 60/20/18, 60/18/27, 60/23/23, 60/8/5.

⁵⁸ For general, yet comprehensive, introductions to

poultry diseases, consult Y. M. Saif, *Diseases of poultry* (11th edn, 2003); F. Jordan *et al.* (eds.), *Poultry diseases* (fifth edn, 2001).

⁵⁹ *Ruralia commoda*, pp. 130–1.

⁶⁰ NRO, DCN 60/28/1

⁶¹ Chicago UL, Bacon Rolls 427–8.

⁶² Chicago UL, Bacon Roll 441.

⁶³ NRO, DCN 60/29/19.

⁶⁴ BL, Add. Roll 39669; TNA, SC 6/843/16–7, SC 6/992/11; NRO, Case 24 Shelf F.

TABLE 6. Composition of goose incomings on demesnes, 1260–1390 (per cent).

<i>Decade</i>	<i>Carried over from previous year</i>	<i>Purchased</i>	<i>Issue</i>	<i>Received</i>	<i>Other</i>	<i>Total</i>
1261–70	36.55	41.81	16.03	5.10	0.51	100.00
1271–80	43.25	42.72	12.61	1.43	0.00	100.00
1281–90	27.51	31.95	37.45	1.78	1.31	100.00
1291–1300	11.68	60.78	25.92	1.50	0.16	100.00
1301–10	11.20	68.54	12.77	5.15	2.35	100.00
1311–20	13.43	52.49	32.69	1.25	0.14	100.00
1321–30	21.47	43.17	33.08	2.04	0.24	100.00
1331–40	29.76	36.64	32.25	0.82	0.52	100.00
1341–50	29.50	36.45	22.91	11.14	0.00	100.00
1351–60	21.33	36.94	28.35	13.39	0.00	100.00
1361–70	16.28	17.59	58.48	7.65	0.00	100.00
1371–80	22.51	11.72	64.45	0.98	0.34	100.00
1381–90	26.78	5.77	72.34	0.88	0.00	100.00
Average	23.94	37.43	34.56	4.09	0.43	100.00

Source: Accounts database.

To ensure a steady population within the goose sector, two basic conditions were required: (1) keeping the ratio of no more (and preferably less) than four unmated geese to one gander; and (2) maintaining replacement rates at about parity. As we have already seen, the first condition was certainly fulfilled, as our accounts indicate. This was also true of the second condition: in the vast majority of cases, manorial officials were indeed able to ensure the desired replacement rates. In some periods, the replacement rates were considerably higher than parity. This was especially true in the period between 1250 and 1290, when goose husbandry was expanding. Higher replacement rates in the 1320s seem to confirm again that goose numbers were expanded to compensate for the depletion of cattle herds. But even when the panzootic crisis seemed to be over, and some demesnes either leased out their poultry flocks, or reduced the overall number of their birds, fairly steady replacement rates were maintained. It should be noted that with geese, as with other domestic birds, it was significantly easier to maintain the minimal replacement rates without financial loss, than it was with horses and cattle. Each year, an average goose would produce five goslings or more. Mares, cows and ewes, on the other hand, normally bore a single offspring, while twins were reported very rarely.

IV

The detailed information of the manorial accounts allows us to reconstruct the annual pattern of goose disposal and their dynamics over the period under study. The accounts were compiled on the basis of a 'charge-discharge' accounting system, with the 'charge' (incomings) preceding the 'discharge' (outgoings) section.

The composition of annual goose incomings varied from decade to decade and from place to place (Table 6). On average, purchases accounted for over 40 per cent of all incomings. Geese were purchased on an especially large scale c.1300. Generally speaking, there was a clear, inverse correlation between the size of a goose flock and the scale of purchases. Large-scale purchases were conducted usually on the demesnes that kept geese in relatively small numbers. At Sedgeford in the 1300s, for example, over 90 per cent of all goose incomings came from purchases, while the total number of geese in the end of each accounting year was around four.⁶⁵ Conversely, at Calthorpe during the 1330s and 1340s, purchases accounted for less than a third of all incomings, but there were between 20 and 40 geese.⁶⁶ From the 1310s onwards, however, we see a gradual decline in purchases. After the Black Death, lords seem to have cut purchases drastically. Instead, they came to rely more on the annual issue of goslings, which came to constitute the largest share of annual incomings. By 1390, the purchases constituted no more than 6 per cent, while the issue accounted for over 70 per cent of incomings, compared to just 13 per cent in the 1300s. Transfers from other demesnes were rare and never constituted more than 13 per cent of the total incomings, over the entire period. On some demesnes, a certain number of geese, as well as other poultry, were rendered as customary rents by the lords' tenants. Compared to hens and pullets, however, these were low figures, rarely exceeding ten. For instance, in the thirteenth and fourteenth centuries the peasants of Redgrave (Suffolk) annually rendered as many as 187 chickens and as few as three geese.⁶⁷

The outgoings fluctuated too, both chronologically and geographically. As Table 5 suggests, over the entire period, a third of all birds were sold. From c.1270, we can detect the growth of goose commercialization, which reached its peak in the 1300s, with as much as about 60 per cent of all geese sold on local markets. Selling rates remained high during the first two decades of the fourteenth century, with some demesnes, such as Hindolveston, Hindringham, and Taverham, selling almost three quarters of their goose stock each year in that period. During the 1330s and 1340s, however, geese were sold on a smaller scale, representing about a third of all outgoings. Only the Black Death brought back the large-scale sales. During the 1350s and 1360s, over a half of goose outgoings were sales and it was not until the 1380s that this figure fell. Unfortunately, the accounts specify neither from whom nor where the demesnes were purchasing their geese, nor to whom they were selling them. Hence, there is no way to establish the distances over which geese, and other poultry, were traded. Equally puzzling is whether the demesnes obtained the geese from other demesnes or from peasants.

⁶⁵ NRO, DCN 60/33/14-5; Lest IB/16.

⁶⁶ NRO, Case 24, Shelf C.

⁶⁷ This is mentioned in D. W. Routt, 'Economy and

society in the fourteenth century: the estate of the Abbot of St. Edmund's, 1335-88' (Unpublished PhD thesis, Ohio State University, 1998), p. 488.

In addition, every year a certain small number of geese appear 'in the lord's expenses' (*in expensis domini*), meaning that the birds were either transferred elsewhere by the lord's request, or allocated by the lord for a manorial court dinner (*ad curiam*). Here the figures were small, never exceeding 11 per cent of outgoings.

The unforeseen losses included animal attacks and disease, which we have addressed, and occasional thefts. Goose theft was rare, occurring no more than once per decade, but it was nevertheless meaningful enough to be reported by the tenants to the bailiff and clerks, who compiled the accounts. Thus, two geese were stolen from Eaton in 1309–10, and the 1317–8 account reports a theft of a further four birds.⁶⁸ As some accounts indicate, the geese were usually stolen during the night (*per noctem*), but by whom is unclear.⁶⁹ On the one hand, it is possible that the geese were snatched by vagrant paupers who were living on alms and theft to make the ends meet. (After all, poverty, often connected with crime, was a serious social issue of the fourteenth century.⁷⁰ The 1317–8 theft occurred during a time of famine and it has been shown that livestock – unsupervised after dark – were the main target. It should be noted, however, that larger animals, chiefly horses, cattle and sheep, were stolen far more frequently than poultry.⁷¹) On the other hand, the detection rate of theft was rather low in the late middle ages and it is quiet possible that the villagers could have been involved in the stealing of geese and other livestock. Manorial court rolls have numerous references to poultry thefts committed by the peasants.⁷² It should be noted that stealing a goose was risky, since geese are more sensitive to the smell of humans than other poultry. Isidore of Seville mentioned this in his *Etymologies*.⁷³ It is equally possible that in some cases the reports of poultry theft served to conceal the dishonesty and incompetence of the reeve.

Some demesnes also directly provisioned their lords with geese. This was especially true in the 1270s, when the demesnes sent about 10 per cent of their goose flocks to their lord each year. Generally speaking, these figures were inconsistent from year to year. For instance, the number of geese dispatched from Hinderclay to Bury St Edmunds Abbey fluctuated considerably: in 1289 its officials sent four geese out of a total of 194 (that is, a meagre 0.02 per cent);⁷⁴ in 1301, by contrast, they dispatched 30 geese, out of a total of 76 (almost 40 per cent).⁷⁵ In Norfolk, Eaton, Hemsby, Hindolveston, Martham, North Elmham and Taverham all sent geese in modest numbers to Norwich Cathedral Priory in the 1260s and 1270s; in the following decade, however, they all stopped their direct supply and it was not until the 1320s that some of them renewed the provisioning of the monastic community of Norwich. Also, the scale of provisioning and consumption could depend on the personal choices, preferences and

⁶⁸ NRO, DCN 60/8/14 and 17.

⁶⁹ NRO, DCN 62/2 (mentioned in the Martham portion of the grouped account).

⁷⁰ B. A. Hanawalt, 'Economic influences on the pattern of crime in England, 1300–48,' *American J. Legal Hist.* 18 (1974), pp. 281–97; ead., *Crime and conflict in English communities, 1300–48* (1979), pp. 238–60; T. R. Gurr, 'Historical trends in violent crime: a critical review of the evidence,' *Crime and Justice. An Annual Rev. of Research* 3 (1981), pp. 295–353.

⁷¹ Hanawalt, *Crime and conflict*, pp. 70–3.

⁷² For instance, E. B. DeWindt (ed.), *The court rolls of Ramsey, Hepmangrove and Bury, 1286–1600* (1990), Microfiche 1, 1280 (89), 1294 (116), 1305 (20), (22), (23), 1311 (22), 1312 (8), and 1341 I (9).

⁷³ *Isidori Hispalensis episcopi etymologiarum sive originum libri XX / recognovit brevique adnotatione critica instruxit W. M. Lindsay* (1911) Book XII, vii. 52.

⁷⁴ Chicago UL, Bacon Roll 424.

⁷⁵ Chicago UL, Bacon Roll 435.

demands of individual lords. For instance, William de Bernham, Abbot of Bury St Edmunds (1335–61) consumed 275 geese sent from his Suffolk demesne of Chevington, while John de Brinkley (1361–78), his successor, took only 54 geese from that demesne, on an annual basis.⁷⁶ There was no uniformity in the seasonal patterns of dispatch. In some cases, geese were sent to be slaughtered for All Saints' Day, or Hallowmas (1 November).⁷⁷ In other instances, the birds were dispatched at Michaelmas (29 September), while some accounts indicate that the lords consumed demesne geese at Pentecost, that is, the ninth Sunday after Easter.⁷⁸ The kind of geese dispatched depended on the season they were sent. At Pentecost, one would expect the peasants to send young, 'green' geese, usually about 16 weeks old, fattened enough to produce a fair amount of meat. In the autumn, on the other hand, they must have been 'white', 'stubble' geese. Indeed, later fifteenth-century diet accounts from Westminster Abbey suggest that both kinds of geese were consumed by the monastic community there.⁷⁹ It is hardly surprising that birds were never sent on a large scale: their overall number was never adequate to supply a lord's household, or a religious community, over an entire year. Instead, when it came to poultry provisioning, lords themselves tended to rely more on the market. It is generally assumed that most birds bought by lords came from peasantry.⁸⁰ Moreover, each house demanded different quantities of geese. While goose was an important ingredient in the diet of Westminster monks, the monks of Norwich Cathedral Priory consumed relatively little poultry and relied more on fish.⁸¹

Each year a certain number of geese were consumed on the demesne, invariably during harvest time (*in autumpno*), by harvest workers who consumed the 'stubble' geese. On average, domestic consumption accounted for some 20 per cent of all outgoings. Peak domestic consumption of geese was in the 1340s, when poultry prices were lower than in the previous decades. Throughout the fourteenth century, and especially after the Black Death, meat became an increasingly important component of harvesters' diet.⁸² Naturally, this went hand-in-hand with rising living standards after the plague.

It is impossible to understand these fluctuations without looking at goose price movements of the same period. The period between the 1250s and 1310s was characterized by a gradual inflation in goose and other poultry prices (Figure 3). Within the space of 60 years, prices rose by some 125 per cent, with a single goose selling for 4.25*d.* in the 1310s, compared with 2*d.* in the 1260s. It is likely that this induced the lords to augment their annual share of goose sales, so they could maximize their profit. When the prices fell again in the 1320s and remained especially low in the 1340s, few gains would have been had in selling geese in large numbers. Instead, more birds were consumed on the demesne at harvest time. After the Black Death poultry prices soared to an unprecedented level, and in the 1360s a goose was selling for about 4.6*d.* in eastern England. This rise was associated with the rising living standards and the increasing demand in

⁷⁶ Routt, 'Estate of the Abbot of St. Edmund's', p. 491.

⁷⁷ NRO, DCN 60/8/4; 60/10/4.

⁷⁸ NRO, DCN 60/10/4; 60/23/23.

⁷⁹ B. Harvey, *Living and dying in England, 1100–1540. The monastic experience* (1993), p. 54.

⁸⁰ Calculated from C. M. Woolgar (ed.) *Household accounts from medieval England* (2 vols, British Academy

Records of Social and Economic History, 17–18, 1992–93), I, pp. 259–63.

⁸¹ P. Slavin, 'Feeding the brethren: grain provisioning of Norwich Cathedral Priory, c.1280–1370' (Unpublished Ph.D. Thesis, University of Toronto, 2008), pp. 328–33.

⁸² C. Dyer, 'Changes in diet in the late middle ages: the case of harvest workers', *AgHR* 36 (1988), pp. 21–37.

poultry meat. The reeves responded to this price behaviour by augmenting the share of annual goose (and other poultry) sales. Conversely, the scale of sales shrank with the renewed fall in prices in the 1370s and 1380s. By that point, there were too few demesne geese to be sold.

Prices, in turn, were influenced by demand, namely by the scale of demand and consumption. Surviving late medieval diet accounts shed much light on the extent and patterns of goose consumption. For instance, in 1336–7 Katherine de Norwich's household ate few green geese in the summer, while between October and January the household consumed about four birds, on a weekly basis.⁸³ The consumption of poultry, and of geese in particular, seems to have increased after the Black Death, as living standards rose. For instance, in 1352 the 25 monks of Battle Abbey spent £3 18s. a year on geese, enough to buy about 220 birds. This stood in contrast with 1307, when the total outgoings on geese amounted £1 0s 3¼d. (approximately 60 geese) and when the total number of the brethren must have been higher.⁸⁴ At Norwich Cathedral, where geese were either consumed on a limited scale or not eaten at all, 55 birds were bought in 1329–30, while in 1355–6 the figure had risen to 300.⁸⁵ Goose consumption was not restricted to wealthy aristocrats and landlords, such as Katherine de Norwich or Battle Abbey. Sir William Waleys, a smaller landholder who could still acquire one or two geese a week, purchased five geese in Christmas week 1382.⁸⁶ There is no doubt that the increasing demand for geese also caused rising goose prices, chiefly in the 1350s, 1360s and 1390s.

An analysis of disposal patterns of demesne geese reveals a great deal about the status and use of geese in late medieval England. More than any other domestic bird, geese were first of all commercial poultry. Each year, manorial lords bought and sold large numbers of these birds. The goose trade was on a large scale, the versatility of geese making them more prized than other poultry.

V

To establish and appreciate the level of goose commercialization, it is necessary to reconstruct the volume of the goose trade. For that purpose, 15 demesnes with exceptionally good and virtually uninterrupted records have been chosen. These include 11 demesnes in Norfolk, three in Suffolk and one in Cambridgeshire. Table 7 shows the basic patterns of goose sales and purchases. First, it shows the average number of geese purchased for demesne flocks. The figures exceed the average numbers of geese on the demesne at the beginning and end of each account year. This hints that the lords and their reeves tended to purchase (and sell) geese *en masse*, rather than on a small scale. The table also establishes the ratio between annual sale and purchase levels, in terms of head of geese. The period between c.1250 and 1310 was an era of pronounced rise in sale levels. Naturally, this went hand-in-hand with a general expansion of

⁸³ Calculated from Woolgar (ed.) *Household accounts*, I, pp. 179–227. This is also discussed in D. J. Stone, 'The consumption and supply of birds', in C. M. Woolgar, D. Serjeantson and T. Waldron (eds.), *Food in medieval England* (2006), p. 154.

⁸⁴ Calculated from E. Searle, *The cellarers' rolls of Battle Abbey, 1275–1513* (Sussex Record Soc. 65, 1967),

pp. 47 and 56; the conversion into the financial equivalent is made allowing 4d. per goose for 1307 and 4.25d. per goose for 1352.

⁸⁵ NRO, DCN 1/2/16 and 1/2/20.

⁸⁶ Calculated from Woolgar (ed.) *Household accounts*, I, pp. 259–63.

TABLE 7. Main patterns in the goose trade on demesnes, 1251–1390 (by value).

<i>Decade</i>	<i>Purchased geese</i>	<i>Sale:purchase ratio</i>	<i>Receipt:expense ratio</i>	<i>Sale:purchase ratio (price per unit)</i>	<i>As % of all livestock sales</i>	<i>As % of all livestock purchases</i>
1251–60	10.0	0.3	0.67	2.00	2.35	1.04
1261–70	16.6	0.7	1.34	1.90	1.88	17.24
1271–80	24.0	0.6	1.10	1.52	4.29	11.78
1281–90	16.0	0.8	1.58	1.86	4.70	10.94
1291–1300	30.2	0.9	1.72	1.85	9.28	19.47
1301–10	31.9	0.9	1.73	1.76	8.41	14.25
1311–20	40.3	0.9	1.63	1.83	9.05	22.59
1321–30	34.1	1.0	1.56	1.84	9.76	15.62
1331–40	33.6	0.8	1.36	1.76	7.11	16.49
1341–50	10.6	0.9	0.90	1.37	4.79	23.69
1351–60	19.2	0.9	1.68	1.63	13.34	10.93
1361–70	20.9	2.7	3.97	1.31	7.98	14.65
1371–80	3.5	9.6	18.66	1.53	4.57	2.35
1381–90	0.0				2.79	0.00
Average	20.8	1.6	2.91	1.70	6.45	12.93

Source: Accounts database.

goose population, commercialization and specialization in goose husbandry. In that period, the lords and their reeves did their best to profit from the increasing surplus of geese, by selling them on the market. In the 1300s and 1320s sale and purchase levels were almost in equilibrium. Despite sale levels never exceeding purchase levels, lords gained more than they lost in terms of money (with the exception of the 1250s, when the sale levels were far lower than the purchase ones). Between the 1250s and 1320s, the ratio between financial profits to expenditure stood at 1.39:1.00, whereas that of sold geese to the purchased ones was 0.74:1.00.

It was the gap between sale and purchase prices that accounted for that asymmetry. Over the entire period under study, and with some variations, sale prices of geese were higher than purchase prices by some 70 per cent. The sale prices were particularly high in the 1250s, 1260s, 1280s, 1290s, 1310s and 1320s, approaching the rate of 2.00:1.00. How can this difference be explained? Although the majority of the accounts do not specify the nature of the marketed geese, there are some rolls that indicate that the majority of the purchased geese were, in fact, goslings (*aucule*). Young or 'green' geese commanded lower price than the mature ones, chiefly because of the amount of flesh they could produce. On the other hand, there is not a single indication that demesnes sold goslings; sold geese were invariably referred to as either *auce* or *aneres*. This reveals that the manorial authorities tended to get rid of older geese, and to replace them with younger birds.

This tendency also indicates the seasonal patterns of goose trade. As we have seen above, the

green geese were available for marketing and consumption only in May–June, some 16 weeks after hatching. Hence, the majority of goose purchases may have occurred around this time. Unfortunately, our accounts do not indicate the transaction dates, but a thorough analysis of a random account can shed some light on the seasonality of goose trade. For instance, there were eight geese in Martham around Michaelmas 1295. From late February to March 1296, 33 goslings hatched (presumably from six mature geese and two ganders), and a further 40 goslings were bought around May–June of the same year. The total number of geese gained would thus be 82. Under the outgoings, the account indicates that 64 geese were sold in the course of the account year.⁸⁷ This would undoubtedly mean that the majority of geese were sold after the purchases. First, there were just eight mature geese to be sold before May–June. Second, the farmers had to allow the young geese to grow, gain weight and become more-or-less mature birds. This would take several more months, perhaps until late summer or early autumn. As indicated above, mature, or ‘stubble’ geese tended to be consumed sometime between August and November, as contemporary diet accounts suggest. This is also strengthened by our manorial accounts, which state that the demesne geese were consumed at harvest time. Hence, we might postulate that most, if not all, sales would have taken place somewhere between late August and late September, that is, before Michaelmas. These patterns were not unique to Martham: this situation is reflected in most pre-Black Death accounts from demesnes rearing geese on a moderate or large scale. If this interpretation of the evidence is correct, then the commercial strategy of the lords and their reeves was plain and simple: young geese would be purchased around May–June, to be fattened in summer and sold closer to the end of the account year. In other words, most geese sold in September were the goslings purchased in May. In that case, a well-planned strategy, which promised good returns, emerges: after all, the value of geese rose by at least 100 per cent in the course of the summer rearing.

How extensive was the goose trade compared with sales and purchases of other livestock? In terms of all livestock sales, the geese accounted for no more than five per cent (calculated by value), between the 1250s and 1290s (Table 7). From c.1290 until the 1330s, however, the goose sector represented almost 10 per cent of all livestock sales. The level of goose commercialization was truly impressive on some demesnes. Thus, at Hindolveston, which was one of the most trade-oriented demesnes, geese accounted for 35 per cent of all livestock sales in the 1310s. Levels almost as high were achieved at Martham in the 1320s. In the 1330s and 1340s, when poultry prices fell, the demesne managers reduced the sale volume to pre-1290 levels. Purchases, on the other hand, were more extensive than sales. With the peculiar exception of the 1250s, geese represented some one sixth of all livestock sales over the entire pre-Black Death period. Again, the figures varied from location to location. First among the goose vendors were the Norfolk demesnes of Hindolveston, Hindringham, Martham, North Elmham and Taverham. On the latter, geese accounted for as much as 70 per cent of all livestock sales in the 1310s.

The Black Death brought about some significant changes in the patterns and extent of the goose trade. As stated above, the most visible consequence of the pestilence was a gradual decline in goose husbandry, which paralleled a gradual retreat from direct demesne management.

⁸⁷ NRO, DCN 60/23/8.

In the 1370s, goose purchases were conducted on a very limited scale, with a ratio of ten geese sold to one purchased. In the following decade, purchases ceased altogether and sales levels declined accordingly. In the 1350s and 1360s, the lords and their reeves did their best to get rid of surplus geese, so that by the 1370s there were too few geese left to be sold; in the 1380s, sales rates returned to their 1250 levels. By c.1400, when a substantial number of demesnes had been leased out to better-off tenants, the goose trade seems to have passed from the demesne to the peasant sector.

The post-1350 waning of the demesne goose trade must be seen within the larger economic and agrarian context of the second half of the fourteenth century. First, the shrinkage of goose flocks went hand-in-hand with a gradual retreat from direct management. Second, the demographic decline associated with the Black Death diminished the market and decreased the price of geese relative to other poultry. Finally, rising real wages, especially after c.1376, prompted many lords to cut back labour-intensive sectors, and expand more extensive types of husbandry – such as wool production and rabbit keeping – with relatively high prices and low unit costs, which were suited to large-scale enterprises. Thus, as many studies have shown, the post-Black Death era witnessed a pronounced decline in demesne dairy husbandry and expansion of sheep and rabbit rearing. The overall size of sheep flocks rose on many demesnes, including the bishoprics of Winchester and Ely, Canterbury Cathedral, Norwich Cathedral Priory and Westminster Abbey.⁸⁸ Similarly, some East Anglian Breckland demesnes turned to commercial rabbit rearing in the 1370s.⁸⁹ It is evident that the goose sector fell into the category of smaller-scale enterprises, requiring high labour input and unit costs, but not necessarily securing high prices. As Figure 3 shows, between 1360 and 1390 goose prices fell by about 33 per cent. These falling prices and the rising wages of those overseeing them made goose rearing increasingly unprofitable for the lords. On the other hand, these small scale enterprises were better suited for the peasant sector in the post-Black Death period. As some compelling evidence indicates, the peasants indeed increased their herds of swine and dairy cattle at the end of the fourteenth century.⁹⁰ Goose rearing within the peasant sector has, however, yet to be studied.

VI

Annual leases of geese were another channel of seigneurial income deriving from goose husbandry. As our accounts suggest, chickens were leased out much more frequently than geese, for four reasons: first, hens were cheaper than geese and hence more affordable for the tenants; second, the rearing costs of geese were higher than those of chickens; third, the return from a hen was more promising than from a goose, in terms of the number of eggs and hatchlings; and

⁸⁸ M. Mate, 'Pastoral farming in south-east England in the fifteenth-century', *EcHR* 40 (1987), pp. 523–36; C. Dyer, [Farming practice and techniques in] 'West Midlands', in E. Miller (ed.) *The agrarian history of England and Wales*, III, 1348–1500 (1991), pp. 235–7; Campbell, 'Commercial dairy production', pp. 107–18; D. Stern, *A Hertfordshire demesne of Westminster Abbey: profits, productivity and*

weather (2000), pp. 217–22; D. Stone, 'Productivity and management of sheep in late medieval England', *AgHR* 51 (2002), pp. 1–2; id., *Decision-making in medieval agriculture* (2005), p. 214.

⁸⁹ M. Bailey, 'The rabbit and the medieval East Anglian economy', *AgHR* 36 (1988), pp. 1–20.

⁹⁰ Dyer, 'West Midlands', pp. 236–7.

finally, the lower strata of society would consume chickens rather than geese. Because of these factors, lords found it more profitable to lease hen houses than goose houses. Nevertheless, the issue of goose leases should not be overlooked.

Leasing policies depended on careful managerial strategies. Each reeve had a different approach and response to local conditions, hence the extent and chronology of leases varied from place to place. It was not until the 1320s that we first hear about the leasing of goose flocks: roughly around the same time as leasing of dairy houses began to gain ground in eastern England.⁹¹ In 1320, the demesne officials of Hinderclay leased an unknown number of geese and, in 1325, Norwich Cathedral Priory leased three geese (two geese and one gander) at Gateley and four geese at Hindringham (three geese and one gander).⁹² At Gateley the leasing policy continued into the 1330s.⁹³ A close analysis of Gateley and Hindringham accounts hint that the two demesnes had different reasons for their decisions. The managers of Gateley must have been prompted by the low local goose prices of 1323 (2*d.* per goose, as opposed to the average of 4*d.*).⁹⁴ The officials of Hinderclay were probably encouraged by the comparatively high prices of pigs and by the attractive prospect of augmenting the swine herds, chiefly to compensate for cattle lost in the murrain of 1319–20.⁹⁵ There were 47 swine in 1324, as compared to 26 in the previous year.

The language of the accounts can be misleading at times, because some rolls account only for geese, without mentioning ganders. For instance, the 1331–2 account from Gateley states that two geese were leased out for 18*d.*, while the rolls from 1324–5, 1326–7, and 1327–8 reveal that these were, in fact, two geese and a gander.⁹⁶ In other words, the ganders were under-represented in some accounts, and we have to assume that ‘two leased geese’ meant ‘two leased geese and one leased gander’. Because one gander is unlikely to service more than three geese, we may assume that five or six geese would have been leased with two ganders.

As a rule, the leasing price of geese stood at 6*d.* per unit in the pre-Black Death era. In other words, it exceeded the purchasing price, which was, on average, about 3.4*d.* per goose between the 1320s and the 1350s (that is, some 60 per cent of the *per annum* leasing price). Why peasants would still agree to rent the geese for one year, instead of purchasing them and keeping them as long as they needed, may be somewhat puzzling. There are four possible explanations. First, the leasing contracts must have included the annual issue of goslings and eggs, as some accounts indicate. If a leasing contract ran between two Michaelmases, then by the end of the contract term, the tenants would have some five more-or-less mature geese produced from one leased goose. As we have seen above, around Michaelmas a six- or seven-month old gosling could cost as much as a mature goose. The leased geese and ganders would be regarded as the seignorial property, to be returned upon the end of the contract term (unless the contract was renewed, which must have been a commonplace), whereas the issue would remain with the tenants.

⁹¹ Slavin, ‘Norfolk cattle’, pp. 53–7.

⁹² Chicago UL, Bacon Rolls 449 and 452; NRO, DCN 60/13/22; DCN 60/20/22.

⁹³ NRO, DCN 60/13/22–26; 62/1–2.

⁹⁴ NRO, DCN 60/13/20–1.

⁹⁵ NRO, DCN 60/20/21–2. There were 47 swine in 1324, as compared to 26 in the previous year. Similarly,

relatively high prices of swine prevailed on Hinderclay and this encouraged the local official to intensify swine husbandry there. See, David Stone, ‘Medieval farm management and technological mentalities: Hinderclay before the Black Death’, *EcHR* 54 (2001), p. 631.

⁹⁶ NRO, DCN 60/13/22–23; 62/1; 60/13/24, 26; 62/2.

In other words, the eventual return from the lease would exceed the initial investment. For instance, in late 1324 the tenants of Hindringham rented three geese and one gander for 2*s.* a year (6*d.* per bird). In the same year, the selling price of one mature goose was 4*d.* Assuming that from late February to March 1325 the three geese produced 15 goslings, and that all the hatchlings survived, we may estimate that, by Michaelmas, the total goose capital of the tenants was equal to some 5*s.* Hence, the eventual return would have exceeded the initial investment by about 150 per cent. Such managerial strategy could certainly be more successful than buying fifteen goslings for, say, 2*s.* 6*d.* (2*d.* each), to sell them later for 5*s.* This would be unlikely to secure a return higher than 100 per cent.

The second possible explanation is that most geese sold on the market were intended for butchery and consumption, rather than for continued rearing. These were likely to be fattened and less fertile birds. It is obvious that the peasants would keep birds for financial profits, rather than consumption. After all, geese were likely to be consumed by those of higher social status, while they themselves would eat chickens.

The third reason for this economic behaviour might be the nature of the contracts. As some manorial accounts hint, leasing prices were more-or-less fixed, remaining steady and largely unchanged over the pre-Black Death decades, regardless of poultry price behaviour. It is hardly surprising, then, that leases peaked in the 1320*s.*, when goose prices were especially high compared with the 1330*s.* and 1340*s.*

The fourth possible explanation is purely psychological, linked to the personal choices and preferences of the lessees, the peasants. It is plausible that they preferred to rent poultry from someone they knew rather than to buy from unknown individuals at market. After all, it was the tenants who were in charge of demesne poultry flocks and they knew about each demesne goose more intimately than any other persons. This acquaintance with each bird must have given them an unquestioned informational advantage as to which geese would be the best to rent.

VII

An analysis of trends and strategies in the demesne goose husbandry of late medieval England sheds light on several important facts. First, the size of goose flocks varied both chronologically and geographically. The geography of goose rearing was dictated mostly by local environmental conditions, while the importance of physical proximity to urban centres seems to have been secondary and limited. As we have seen, the fens, coastlines and estuaries housed demesnes with large goose populations.

Biologically speaking, the late medieval English goose exhibits, to a large degree, the same patterns as the modern domesticated greylag. On average, each nest produced 5.5 goslings; the sex ratio was maintained, almost invariably, at one gander to three geese; the geese and their issue were prone to exogenous factors such as predators, larger domestic animals and avian diseases.

Both manorial accounts and contemporary diet accounts reveal that there was a significant demand for geese, which influenced both prices and markets. Before the Black Death, demand seems to have reached its peak in the 1300*s.* and 1310*s.* It was then when the prices and volume of trade were at their highest. The Black Death had two opposing effects: it shrank the market

for geese on the one hand, but increased goose consumption *per capita* on the other. This went hand-in-hand with rising standards of living in the post-1350 period. The lords and their reeves were no longer attracted by the prospects of large-scale goose rearing, which was labour-intensive and more costly than ever before, and decided to cut back the goose flocks, by either selling or leasing them out. By c.1400 only a few geese survived on demesnes. A similar tendency can be seen within the dairy sector, which also shrank after the plague. Geese and cows shifted from the demesne to the peasant sector. On the whole, one may argue that goose rearing was an adjunct sector to dairy husbandry. Both cows and geese required the supervision of dairy-maids; both were labour-intensive and highly commercialized until c.1370; both were being leased out from the 1320s; and both faded from the demesne by the end of the fourteenth century.

The annual patterns of goose disposal can, perhaps, shed some light on the late medieval perception of this bird: in the agricultural, rural *milieu*, the goose symbolized, first and foremost, trade. Each year, noble households and wealthy religious communities purchased large numbers of geese to be consumed both in late spring and around Michaelmas. Tenants, however, could enjoy only modest amounts of goose meat, and only around harvest time. Chickens were by far the more affordable commodity and were enjoyed by virtually every social stratum, as Ernst Schubert noted, while more luxurious and 'decorative' birds – peacocks, pheasants and, most of all, swans – symbolized social status and prestige.⁹⁷ The commercial and social importance of the goose should not overshadow that of other birds, whose history and fate is yet to be studied.

⁹⁷ Schubert, *Essen und Trinken*, pp. 120–5.