

Field Systems and Demesne Farming on the Wiltshire Estates of Saint Swithun's Priory, Winchester, 1248–1340*

By BARRY HARRISON

Abstract

Manorial *compoti* are used to describe the demesne agriculture of Winchester Cathedral Priory on its chalkland manors in Wiltshire between 1248 and 1340. The demesnes are found to have been operated largely within the two-field systems of the vills even where, at first sight, the use of independent furlongs seems to be suggested. The disadvantages of this system were partly offset by the priory's near monopoly of pasture, hay and timber resources, as well as by the absence of sub-manors and freeholds. Nevertheless, productivity is found to be low – although no lower than on other demesnes in the same district – but some evidence of intensification through the use of legumes and relatively high stocking ratios has been found for certain cereals on a few manors where market sale rather than monastic supply was the main object of arable farming.

MEDIEVAL farming practices in Wiltshire are better known than those of other Wessex counties thanks largely to a long tradition of local journal and record publications, and to the thoroughly researched parish surveys in the on-going Victoria County History. The emphasis has admittedly been on demesne rather than on peasant agriculture, but that is perhaps inevitable given that the main sources are the surveys, custumals, account rolls and court rolls of great estates, particularly those of bishops and large monastic houses. The details of Wiltshire demesne farming are not, however, particularly well known since there has been a tendency in recent years for historians to use Wiltshire material for studies primarily concerned with broad questions relating to the performance of the national economy: agricultural productivity, investment policy, technological change and marketing.¹ Detailed work on farming practices at the

local level has indeed been undertaken with impressive results for the later medieval and early modern periods but comparisons with the earlier period, before the Black Death, tend to be based either upon much older work or upon the parish surveys in the Victoria County History.² The editors of the latter have certainly consulted the full range of primary sources but they have not been able to do more than dip into them at particular points in time. Thus, manorial account rolls, to take one example, have not been examined for several successive years to establish the actual patterns of cropping on the demesne fields and furlongs.

In this article we shall examine the demesne agriculture of a group of manors for which numerous account rolls have survived for the period 1248 to 1340. Since most of the demesne land lay in common fields on all of these manors, this study

* I am indebted to the Dean and Chapter of Winchester Cathedral for permission to work on their muniments in the cathedral library.

¹ J Z Titow, *Winchester Yields: A Study in Medieval Agricultural Productivity*, 1972; D L Farmer, 'Grain yields on the Winchester manors in the later Middle Ages', *Econ Hist Rev*, 2nd series, XXX, 1977, pp 555–6; *idem*, 'Two Wiltshire manors and their markets', *Ag Hist Rev*, 37, 1989, pp 1–11.

² E Kerridge, 'Agriculture, c 1500–c 1793', and Richenda Scott 'Medieval agriculture' in *Victoria County History of Wiltshire*, IV, 1939; J N Hare, 'Change and continuity in Wiltshire agriculture in the later Middle Ages', in W Michinton, ed, *Agricultural Improvement: Medieval and Modern*, Exeter Papers in Economic History 14, Exeter, 1991, pp 1–18; *idem*, 'Durrington: a chalkland village in the late Middle Ages', *Wilts Archaeol & Nat Hist Mag*, 74/75, 1981, pp 137–47; *Victoria County History of Wiltshire*, IX, 1970; X, 1975; XI, 1980; XII, 1983; XIII, 1987.

should be relevant to the agricultural practices of the peasantry as well to those of the lord.

Winchester Cathedral Priory, dedicated to Saint Swithun, held eleven manors in Wiltshire most of which had been acquired in the late Saxon period. By the thirteenth century seven of these estates were under the control of the priory's central financial officer, the receiver, and it is for these alone that account rolls survive in any numbers. Wroughton and Little Hinton lie just under the north-facing escarpment of the downs, overlooking the Vale of White Horse; Overton lies further south in the upper Kennet valley; Alton Priors lies on the north side of the Vale of Pewsey while the nearby manor of Patney lies entirely within the vale; Enford is situated in the upper Avon valley, and Stockton in the Wylde valley (Fig 1). Except for Patney, all these manors lie wholly or partly on the chalk. The remaining manors belonged to priory obedientaries, the annuversarian and the chamberlain. Few account rolls survive for these although there are surveys in the priory's custumal.³ The manor of Woolstone in Berkshire belonged to the hordarian, but there is a good collection of account rolls for the early fourteenth century and its geographical situation is similar to that of a couple of the receiver's manors.⁴ Woolstone will therefore be studied along with the seven Wiltshire manors.

Thirteen sets of accounts covering all the receiver's manors have survived for the following years: 1247/48, 1266/67, 1279/80, 1281/82, 1282/83, 1298/99, 1306/7, 1308/9, 1310/11, 1311/12, 1314/15, 1315/16 and 1317/18. Accounts for single manors survive for some other years but there is never a sequence of them except in the case of Woolstone for which seven accounts survive for the

years between 1308/9 and 1338/39.⁵ In addition to the account rolls, there is a fine custumal covering most of the estates of the receiver and obedientaries. It is a fourteenth-century compilation based on thirteenth-century originals for individual manors only a few of which are dated.⁶ For our eight manors only Woolstone (1221) is dated, but a comparison of rent totals in the custumal and the account rolls suggested that the Wroughton entry was drawn up a little before 1248 and the others between 1248 and 1279. There are also many court rolls for the Wiltshire manors but they provide little information about agricultural practices. Two of the manors were not accounted for after 1300: Little Hinton was transferred to the hordarian at some time between 1299 and 1307, while the arable demesnes of Patney were leased to the tenants shortly before 1299.

The high quality of information provided in the St Swithun's accounts has long been appreciated.⁷ The 1247/48 account roll is clearly a fair copy drawn up with a view to preservation, but all the other rolls are written in a variety of hands and covered with cancellations, interpolations, calculations and injunctions to manorial officers. For our purposes their chief value lies in the detailed recording of year-by-year sowings in the demesne fields and furlongs of each manor, along with a good deal of information about the extent and utilization of pasture, meadow and woodland, which can be supplemented by information from the custumal and, to a lesser extent, the court rolls.

³ Dean and Chapter of Winchester, *Muniments: Custumal of the Church of Winchester*, 184 fs.

⁴ PRO, SC6/756/9/3-9.

⁵ Dean and Chapter of Winchester, *Muniments: Account Rolls for the estates of the receiver 1247/48-1323/24*. These rolls include all the Wiltshire manors. They are kept in boxes numbered I to IX except for the 1247/48 roll which is kept separately. References will be abbreviated to box number, date and manor - Acc Roll II 1282/83 Enford. A number of accounts for individual manors are kept in a series of boxes numbered 1 to 59. References to these will be abbreviated to box number, manor and date - Acc 23 Little Hinton 1304/5.

⁶ See note 3. References will be abbreviated to Custumal followed by folio number.

⁷ J S Drew, 'Manorial accounts of St Swithun's Priory, Winchester', *Eng Hist Rev*, 62, 1947, pp 20-41.

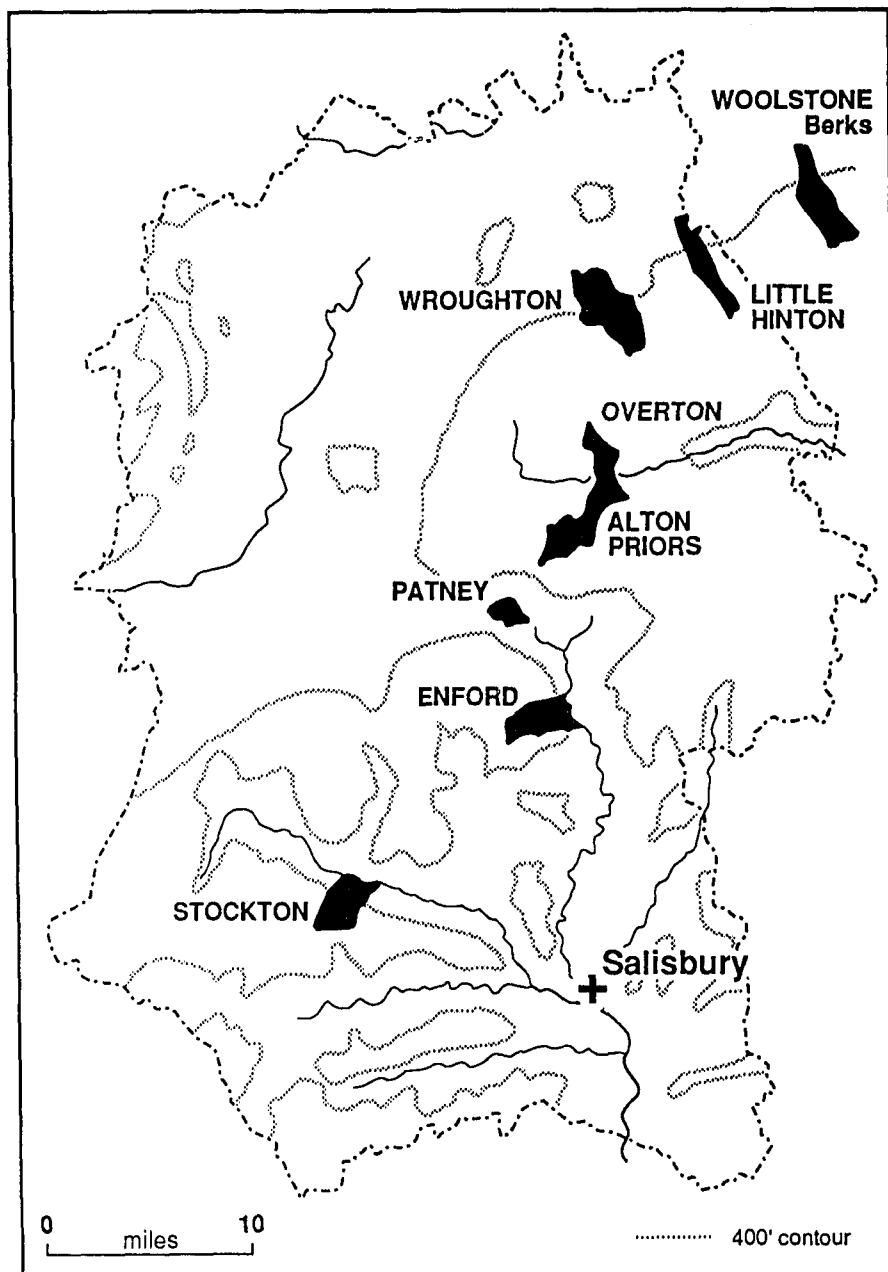


FIGURE I
The Wiltshire estates of St Swithun's Priory

I
The eight manors which are the subject of this study all coincided with villis, although three of them included a dependent hamlet. Within these villis there were no other lords and hardly any freeholders: the

arable fields and pastures were exploited exclusively by the prior and his tenants. The tenants were either villeins holding one or two virgates of land, the virgate varying between sixteen and twenty acres, or cottars holding half-virgates. On several

TABLE I
Area of tenant land and demesne in the late
thirteenth century

Manor	Tenant lands in custumal (acres)	Approximate size of demesne in 1280s (acres)
Wroughton	704	600
Little Hinton	608	930
Woolstone	658	620 (1330s)
Overton	360	720
Alton Priors	528	620
Patney	464	130
Enford	640	1130
Stockton	468	400

Sources: Area of tenant lands based on Custumal f 124v-127r Wroughton; f 169v-172r Little Hinton; f 177r-180v Woolstone; f 119v-121r Overton; f 127r-132r Alton Priors; f 90r-93v Patney; f 113v-119v Enford and f 121r-124v Stockton. Size of demesnes calculated from Acc Roll I 1279/80 and Acc Roll II 1281/82 and 1282/83 for all the manors except Woolstone. Woolstone demesne in the 1330s calculated from PRO, SC6/756/9/5-9.

manors the custumal tells us that the lands of each tenant were divided equally between two fields.⁸ The ratio of demesne to tenant land cannot be calculated precisely because the custumal entries were usually drawn up twenty years or more before the earliest sequence of accounts in the 1280s and because it is not always possible to work out the amount of demesne land sown in each of the fields: particular crops were sometimes sown in several fields without the acreage for each being given. Since, however, neither the level of tenant rents nor the area of demesne sown underwent any very dramatic changes between 1248 and the 1280s, and since it is usually possible to work out the area of demesne in each of the fields from at least one of the three accounts between 1279/80 and 1282/83, the figures given in Table I can be used as a rough guide.

It will be evident from Table I that the ratio of demesne to tenant land was very high on these manors: the demesne was roughly equal to or in excess of all other

land everywhere except at Patney. Indeed, the predominance of demesne may have been even greater since the figures given above take no account of areas which were occasionally cropped but not part of the regular rotation fields. To judge by the custumal the tenants seem to have had few opportunities to farm areas of land outside the fields, their holdings usually being restricted to virgates or half-virgates in the two fields. Even at Woolstone where the villeins held between them ninety-five acres 'on the hill' in addition to their virgates in 1221, the early fourteenth-century accounts show that the same area (now called *Clyfelondes*) belonged to the lord and was taken back into demesne whenever he wished to sow it.⁹ Such 'outfield' areas seem to have been a lordly monopoly in Wiltshire, as they were on the North and South Downs, rather than shared with the tenantry as they were on the chalk and limestone uplands of eastern Yorkshire.¹⁰

The limitation of the tenants to their open-field holdings must be due at least in part to the lack of room for expansion by the late thirteenth century. There is little evidence of rising rent-rolls on the Wiltshire estates comparable to the rapid expansion of rents on some of the priory's Hampshire estates located in the woods and heathlands on the Surrey and Berkshire borders.¹¹ The only example of assarting on any scale is recorded at Alton Priors in 1260/61 when £4 were spent on digging and planting 323 perches of ditch around the assart of *Chesmede*, recently cleared of

⁹ Custumal: f 177r-180v; PRO, SC6/756/9/3-9.

¹⁰ T A M Bishop, 'The rotation of crops at Westerham 1290-1350', *Econ Hist Rev*, 9, 1938, pp 38-44; P F Brandon, 'Arable farming in a Sussex scarp-foot parish during the late Middle Ages', *Sussex Archaeol Colls*, 100, 1962, pp 60-72; A R H Baker, 'Field systems of southeast England', and J A Sheppard, 'Field systems of Yorkshire', in A R H Baker and R A Butlin, eds, *Studies of Field Systems in the British Isles*, 1973, pp 377-429 and 167-76; D A Spatt and B J Harrison, *The North York Moors: Landscape Heritage*, Newton Abbot, 1989, pp 86-94.

¹¹ F J Baigent, *The Cronal Records*, Hampshire Record Society, 1891; G W Kitchin, *The Manor of Manydown*, Hampshire Record Society, 1895.

⁸ Custumal: Wroughton f 124v-127r; Alton Priors f 127r-132r; Patney f 90r-93v; Overton f 119v-121r; Enford f 113r-119v; Woolstone f 177r-180v.

wood, which was subsequently ploughed by tenant boonworks.¹² Woods existed on all the manors but they were generally quite small and entirely under the lord's control. The extensive tracts of clay-with-flints which give rise to large areas of wood, and associated hamlets and isolated farms, in the Chilterns, the North Downs and northern Hampshire, do not occur in these parts of Wiltshire.¹³ The only woods of any size appear to have been at Wroughton, where they probably lay just under the chalk escarpment, and at Stockton where they lay on a small clay tract high up on the downs. At Wroughton 178 perches of hedge (*haye*) were made around the wood in 1307/8 and at Stockton no less than 287 perches in 1279/80.¹⁴ Smaller enclosures were made around woods at Overton (1314/15) and Enford (1317/18).¹⁵ For the lord, much of the value of the woods lay in coppice timber which was usually sold for around 10s per acre, although considerable investment was required to fence off the coppiced areas to allow for the regeneration of the timber. Thus, at Stockton 129 perches of *haye* were made to fence off the coppice enclosures in 1304/5 and another 151 perches in 1310/11.¹⁶ On most estates timber needed for buildings within the manorial complex had to be imported from elsewhere. Only Stockton seems to have had enough timber for its own purposes and for export to other manors.

There is nothing to suggest that the tenants had any rights in the woods other than what the lord would allow them for a price. They were generally allowed to pannage their pigs in the woods for a short period during the autumn on payment of

a small sum, but they seem to have had no general grazing rights, and the privilege of taking wood for house-building and fencing (*husbote* and *haybote*) was restricted to a few favoured individuals.¹⁷

If the woodlands were not available for peasant exploitation, the same seems to have been true of the meadows. Hay was in chronically short supply on many of the manors: the reeves of Alton Priors, Overton and Enford had to make large purchases on an almost annual basis from the better favoured manors of Wroughton, with meadows in the Vale of White Horse, and Patney in the Vale of Pewsey. The exact size of demesne meadows cannot be ascertained from the sources but payments were regularly made for mowing ninety-three acres at Wroughton between 1304/5 and 1323/24 while on the small manor of Patney most of the meadows were kept in hand after the leasing of the arable, and sales of hay rose as high as £25 in some years.¹⁸ Woolstone was also quite well endowed with vale meadows, with annual sales of hay regularly worth over £5 and sometimes much more.¹⁹ How far the tenants had a share of the meadows is uncertain, but it is perhaps significant that on most manors the virgates were described exclusively in arable terms. Only at Woolstone was a small area of meadow a normal concomitant of the virgate, although elsewhere a few individuals are occasionally credited with a little meadow.²⁰ On most manors the villeins and sometimes the cottars owed some mowing services although most of the work appears to have been done by hired labour. Meadow was very rarely let to the tenants, and unless there were common meadows which our sources do not reveal,

¹² Acc 59 Alton Priors 1260/61.

¹³ Baker, 'Field systems of southeast England'; D Roden, 'Demesne farming in the Chiltern Hills', *Ag Hist Rev*, 17, 1969, pp 9-23; *idem*, 'Field systems of the Chiltern Hills and their environs', in Baker and Butlin, *Studies of Field Systems*, pp 325-58.

¹⁴ Acc Roll IV 1307/8 Wroughton; Acc Roll I 1279/80 Stockton.

¹⁵ Acc Roll VIII 1315/16 Overton; Acc Roll IX 1317/18 Enford.

¹⁶ Acc 1 Stockton 1304/5; Acc Roll VI 1310/11 Stockton.

¹⁷ Custumal f 128r: Osbert de Stowelle, who held two virgates, had *husbote* and *haybote* in the lord's woods at Alton Priors.

¹⁸ Details of the Patney lease are given in Acc Roll III 1298/99 Patney. Large sums received from the sale of hay are on Acc Rolls V 1308/9 and VIII 1311/12 Patney.

¹⁹ PRO, SC6/756/9/3-9.

²⁰ Custumal f 177r-178r.

TABLE 2
Size of demesne flocks at Michaelmas, 1309

Manor	Wethers	Ewes	Hoggets	Total
Wroughton	140	144	72	356
Little Hinton (1299)	—	372	78	450
Woolstone	257	290	113	660
Overton	654	727	351	1732
Alton Priors	—	419	104	523
Patney (1283)	—	45	—	45
Enford	401	831	316	1548
Stockton	378	—	97	475

Sources: Acc Roll V 1308/9 Wroughton, Alton Priors, Overton, Enford and Stockton; Acc Roll III 1298/99 Little Hinton; Acc Roll II 1282/83 Patney; PRO, SC6/756/9/1 Woolstone.

it is possible that tenants had to buy their hay either from the lord or in local markets. It may be significant that when the tenants of Patney took over the arable demesne, they also found it necessary to lease two of the lord's meadows and parts of two more.²¹

The other resources of the St Swithun's manors that need to be considered before passing on to the arable fields are the downland pastures. These were not as extensive as one might suppose since the open fields often extended far into the chalk uplands. Indeed, as many historians have emphasized, the pastures and arable needed to be in close proximity to facilitate the systematic folding of sheep on the arable.²² The priory maintained large flocks of sheep on most of its Wiltshire manors (Table 2) in a ratio of about two sheep to an acre of fallow land.

The size of peasant flocks can rarely be estimated with any precision. On some manors where the villeins or cottars performed customary services at the lord's sheephouse and fold, they were allowed to graze thirty or thirty-two of their own sheep per virgate of land held, or sixteen sheep for half a virgate, but it is clear that their flocks were a good deal larger than

this.²³ Sheep could be grazed in excess of the quota on payment of a herbage or *faldgable* rent to the lord. Herbage was paid for 250 such sheep at Little Hinton in 1298/99, for 206 at Alton Priors in 1310/11 and for 158 at Overton in 1315/16 to mention only a few examples.²⁴ Even this does not tell the full story. A memorandum attached to the custumal entry for Stockton states that the holder of each virgate of land was entitled to 'common' with no less than 64 sheep, a total of 1120 sheep in all, nearly three times as large as the demesne flock in 1309.²⁵ Since one half of the allocation per virgate related to sheep grazing in the lord's pasture and fold, the rest must have been on a 'common' exclusive to the tenants and distinct from the demesne pastures. In addition to the downlands, the tenants also enjoyed rights of grazing over the arable fields after the harvest, and over the fallows throughout the year. The court rolls sometimes record fines levied for grazing on the arable at the wrong times, as at Enford in 1310/11 where the whole vill was fined for turning stock on to the North Field before

²¹ Acc Roll III 1298/99 Patney.

²² E Kerridge, *The Agricultural Revolution*, 1967, pp 42-7.

²³ 30 sheep per virgate at Enford: Custumal f 114v; 16 sheep per half virgate at Overton: Custumal f 121v; 32 sheep per virgate at Stockton: Custumal f 122r.

²⁴ Acc Roll III 1298/99 Little Hinton; Acc Roll VI 1310/11 Alton Priors; Acc Roll VIII 1315/16 Overton.

²⁵ Custumal f 123r.

Michaelmas.²⁶ It is, however, unlikely that the tenants were able to graze their stock on the lord's demesne furlongs which often accounted for more than one half of the entire field area. Regular sales of stubble to the tenants suggest that even gleaning could only be had at a price. Grazing for cattle on the richer pastures does not seem to have been available anywhere as a common right of the tenantry. On all manors pasturage for oxen, cows and bulls was provided by the lord in return for a herbage rent. The large number of cattle on which herbage was regularly paid, ranging from forty to fifty at Little Hinton and Alton Priors to sixty to seventy at Wroughton, Overton and Patney, suggests that the tenants had little in the way of alternative resources.

The most crucial aspect of pasture farming for lord and tenants alike was the systematic folding of sheep on the fallows of the arable fields. The nightly concentration of up to one thousand sheep on each acre of fallow both manured and consolidated the thin chalk soils and alone made it possible to secure good cereal crops from the uplands.²⁷ The concentration of sheep required for folding made it desirable, from the lord's point of view, to use the tenants' flocks as well as his own. At Enford, Overton, Alton Priors and Stockton, where the priory's sheep farming was on a grand scale, most of the villeins and cottars were bound to place their sheep in the lord's fold although they were allowed access to the lord's pastures in return. This was clearly a popular arrangement since, as we have seen, many tenants were prepared to pay *faldgable* for sheep above the fixed quota.²⁸ In general, however, the arrangement rarely worked the other way around:

only at Overton were the cottars allowed to have the lord's fold on their own land and then only for the fourteen days between Christmas Eve and Epiphany.²⁹ It is very likely that tenants co-operated in folding since few would have had enough sheep to manure their arable systematically, but our sources do not, from their very nature, have much to say about transactions which did not involve the lord.

II

Details of fields in which demesne crops were sown are set out in Table 3. This gives the names of the rotation fields, the area of demesne land in each field and the dates for which this can be determined. Table 4 lists those areas outside the rotation fields which were sown occasionally, along with the areas and dates. Table 3 demonstrates that the priory's demesne arable lay almost entirely in the open fields of the vill and that these were usually arranged into two cropping units. H L Gray firmly established the Wiltshire chalklands as an area of two-field systems, and subsequent work has multiplied the number of examples.³⁰ Some three-field systems did emerge but mostly only in the late Middle Ages and the sixteenth century. Demesne farming within generally two-field systems has also been established for other areas in Wessex and for the Yorkshire and Lincolnshire Wolds, but not for the Chilterns and the North and South Downs where demesnes were wholly or largely consolidated.³¹

All the Wiltshire demesnes of the priory, except for some of those at Wroughton, lay in the two fields of the vill although in

²⁶ Dean and Chapter, Winchester, Muniments: Court Roll, Enford 1311.

²⁷ Kerridge, *The Agricultural Revolution*, pp 42-7.

²⁸ 'Faldgable' was paid on 250 extra sheep at Little Hinton: Acc Roll III 1298/99 Little Hinton; on 158 at Overton: Acc Roll VIII 1315/16 Overton; on 206 at Alton Priors: Acc Roll VI 1310/11 Alton Priors.

²⁹ Customal f 121v.

³⁰ H L Gray, *The English Field Systems*, Cambridge, Mass., 1915, Appendix II, pp 501-3; Hare 'Change and continuity in Wiltshire agriculture', pp 1-8; Scott 'Medieval agriculture', pp 7-42.

³¹ Gray, *The English Field Systems*, pp 50-82; F R H Du Boulay, *The Lordship of Canterbury*, 1966, pp 130-9; P F Brandon, 'Demesne arable farming in coastal Sussex during the late Middle Ages', *Ag Hist Rev*, 19, 1971, pp 113-34.

TABLE 3
Rotation fields and the areas of demesne sown in them

Manor	Rotation fields	Area sown (acres)	Dates
Wroughton	East Field	188	1280
	East Hackpen	144	1280
	West Field & West Hackpen	270-303	1283-1313
Little Hinton	East Field	346-488	1283-1299
	West Field	447-583	1280-1282
Woolstone	East Field	268-302	1332-1336
	West Field	293-347	1327-1339
Overton	West Field & West Fyfield	466	1282
	East Field & East Fyfield	260+	1283
	South Field	389-412	1280-1315
Alton Priors	North Field	302-426	1261-1315
	East Field	84-102	1261-1287
Patney	West Field	42-84	1248-1282
	North Field	553-567	1280-1316
Enford	South Field	482-612	1283-1315
	East Field	197-282	1280-1282
Stockton	West Field	167-181	1283-1299
	Middle Field	122	1318

Sources: Based on all extant accounts for the named manors: Acc Roll 1247/48; Acc Roll I 1266/67; 1279/80; Acc Roll II 1281/82, 1282/83; Acc Roll III 1298/99; Acc Roll IV 1306/7, 1307/8; Acc Roll V 1308/9; Acc Roll VI 1310/11, 1311/12; Acc Roll VII 1313/14, Acc Roll VIII 1315/16; Acc Roll IX 1317/18, 1323/24; Acc I Stockton 1304/5; Acc 23 Little Hinton 1272/73; Acc 53 Wroughton 1304/5; Acc 59 Alton Priors 1260/61, Patney 1271/72 and 1275/76. Woolstone based on PRO, SC6/756/9/3-9.

TABLE 4
Demesne fields cropped occasionally and the areas sown within them

Manor	Name of field	Area (acres)	Dates
Wroughton	East Hull	107	1282
	West Hull	126	1283
	Moresnull	14-20	1248-1324
	Brecha	11	1248
	Brokfurlong	9	1316
Little Hinton	Brecha	11-23	1248-1283
Overton	South Field	14-39	1311-1318
Alton Priors	Wodebrek	26-40	1261-1283
	La Breche	34	1282

Sources: as for Table 3.

a few places they were supplemented from time to time with furlongs lying outside the fields which were sown mostly with oats and at long intervals. These 'outfields' often bear names compounded with *-brech*, *-brek* or *-broc* suggesting land newly 'broken' from the pastures, cropped for a year or two and then allowed to revert to grass. They do not compare either in size

or in regularity of cropping with the great 'outfields' found in parts of Kent and Sussex, nor are they associated with the continuous cropping of the better land or 'infield'.³² At Wroughton the arrangements were sophisticated enough to allow

³² Bishop, 'The rotation of crops'; Brandon, 'Arable farming in a Sussex scarp-foot parish'; Baker, 'Field systems of southeast England'.

a considerable degree of independence for demesne agriculture. Here East Field and East Hackpen, and West Field and West Hackpen were always cropped together. The Hackpens may have constituted a second set of common fields but it is more likely that they were entirely demesne although following the same rotation as the common fields near the village. The tenants seem to have had no grazing rights over the arable at Hackpen other than those occasionally rented to them by the lord, and it is therefore likely that they had no arable land there either. Some of the 'outfield' furlongs were of considerable size: over one hundred acres were sometimes sown in East Hull and West Hull, while the much smaller furlong of *Moreshull* was frequently sown during the period of the accounts.³³ The Wroughton arrangements were, however, quite exceptional and it may be significant that, even here, the lord still chose to operate within the constraints of the village open-field system and cropping regime.

Some insights into the rationale of the two-field system might be gained by a consideration of the proportions of different crops sown on the demenses. Table 5 shows the percentages of different crops sown in two sample years, 1281/82 and 1308/9. This shows that the emphasis of demesne arable farming varied considerably from manor to manor although not from year to year, since the balance of crops is much the same at the two dates. Wheat was the dominant crop at Alton Priors, Woolstone and to some extent at Wroughton, while oats were of major importance at Little Hinton. Barley was nowhere the leader although it was important on all the manors outside the northern

group. It is of interest to note that winter-sown corn (wheat and bere) was rarely in balance with spring-sown corn (barley, oats, dredge and legumes): only at Wroughton and to some extent at Enford was there a rough equality between the two 'seasons'. This could be seen as either the cause or the effect of two-field agriculture under which the proportion of winter to spring corn, sown as they were in the same field, would not be a matter of great moment. With three fields, on the other hand, an approximate equality between the two would have been required.

An imbalance of winter and spring sown crops might be satisfactory for the lord who could balance the deficiencies of one manor with the surpluses of another, but what of the peasantry who shared the same fields and were presumably subject to the same rotations? A rare insight into peasant agriculture is provided by a number of church accounts which detail the corn tithes paid from the lord's demesne and from the lands of the parishioners. Several such accounts have survived for the parishes of Overton, Alton Priors and Enford, all of which were appropriated to St Swithun's Priory (Table 6).³⁴

As one would expect, the cropping practices of the peasantry differed somewhat from those of the demesne. The parishioners were primarily interested in growing wheat and barley, the main bread, drink and possibly cash crops, while the manors required large quantities of oats to feed the cart horses employed in long-distance traffic to Winchester, to distant markets and to other manors of the priory. However, the strong balance in favour of spring-sown crops at Overton and Enford was as much a feature of the parish as of the demesne so that the two-field system

³³ In a consecutive series of accounts for Wroughton 1306/7, 1307/8 and 1308/9, both East and West Hull were unsown in 1306/7 and 1307/8, but in 1308/9 West Hull was sown with wheat and East Hull with barley and oats; *Moreshull* was unsown in 1306/7, sown with barley in 1307/8 and again unsown in 1308/9; Acc Rolls IV 1306/7 and 1307/8 Wroughton and Acc Roll V 1308/9 Wroughton.

³⁴ Acc Rolls III 1298/99, IV 1306/7, V 1308/9, VI 1310/11, and 1311/12, VIII 1315/16 Overton Church; Acc Rolls IV 1306/9, VIII 1315/16, Acc 59 1320/21 and 1322/23 Enford Church; Acc Rolls III 1298/99, V 1308/9, VI 1310/11, VIII 1315/16 Alton Church.

TABLE 5
Percentages of demesne sown with various crops 1281/82 and 1308/9

Manor	Percentage of demesne sown with					
	Wh*	Be	Ba	O	Dr	Leg
1281/82						
Wroughton	45	7	19	27	—	2
Little Hinton	23	3 ½	5	61 ½	5 ½	1 ½
Overton	26 ½	13 ½	19	28 ½	10 ½	2
Alton Priors	64	2	21 ½	10 ½	—	2 ½
Patney	34 ½	24	24	10	—	7 ½
Enford	28	18	30	21	—	3
Stockton	24 ½	6 ½	24 ½	42	—	2 ½
1308/9						
Wroughton	45 ½	7 ½	29	16 ½	—	1 ½
Woolstone	53 ½	7	7	24 ½	—	8
Overton	33 ½	—	26	26 ½	9	5
Alton Priors	70 ½	—	21 ½	7	—	1
Enford	29	11	32 ½	20 ½	—	7
Stockton	25	—	30 ½	30	7	7 ½

* Wh (wheat), Be (bere), Ba (barley), O (oats), Dr (dredge), Leg (legumes — peas, beans, vetches).

Sources: Based on Acc Roll II 1281/82 for all seven manors; Acc Roll V for all manors except Woolstone; Woolstone PRO, SC6/756/9/3.

TABLE 6
Percentages of tithe paid on various crops in three parishes

Parish	Percentage of tithe paid on					
	Wh*	Be	Ba	O	Dr	Leg
Overton (1310/11)						
Demesne	18	8 ½	40 ½	23	6	4
Parish	22 ½	6 ½	54	2 ½	8	6 ½
Alton Priors (1310/11)						
Demesne	62	—	28	9 ½	—	½
Parish	45	1 ½	48	1	1 ½	3
Enford (1315/16)						
Demesne	34	9	42	12	—	3
Parish	20	4	62	8	4	2

* Abbreviations as for Table 5.

Sources: Acc Rolls III 1298/99, IV 1306/7, V 1308/9, VI 1310/11 and 1311/12, III 1315/16 Overton Church; Acc Rolls IV 1306/9, VIII 1315/16, Acc 59 1320/21 and 1322/23 Enford Church; Acc Roll III 1298/99, V 1308/9, VI, 1310/11, VIII 1315/16 Alton Church.

favoured the interests of both parties. At Alton Priors, on the other hand, the two seasons were in much better balance for the parishioners than for the demesne, and one can only conclude that a two-field rather than a three-field system was maintained in the interests of the lord. The two-field system was not, of course, wholly

inflexible since well over 50 per cent of the demesne arable was usually sown (Table 7).

These figures relate only to sowings in the rotation fields, omitting outlying areas which were not regularly sown. Such areas were, as we have seen, of some importance at Wroughton but of minor significance elsewhere. Such flexibility as there was generally arose from the cropping of part of the fallow field, normally with legumes. The areas sown with these crops were often quite small, ranging from just a couple of acres at Enford to between ten and twenty acres on the vale manors. Only at Woolstone was a significant proportion of the fallow cropped in this way, usually thirty to forty acres but rising to nearly fifty in 1338/39.³⁵ There is some tendency for the proportion of legumes to rise even on the downland manors (Table 5) but only to a modest extent, and it is interesting to note from the church accounts that legumes were grown as much by the peasantry as by the lord. Evidently the use of

³⁵ PRO, SC6/756/9/9.

TABLE 7
Acreage of demesne sown in three sample years compared with the estimated size of the demesne

Manor	Area of demesne sown (acres)			Approx size of demesne (acres) in 1280s
	1247/48	1281/82	1308/9	
Wroughton	289	394	324	600
Little Hinton (1299)	215	476	—	930
Woolstone	—	—	327	620 (1330s)
Overton	389	466	526	720 +
Alton Priors	368	336	399	620
Patney	99	58	—	130
Enford	487	585	588	1130
Stockton	254	288	281	400

Sources: Based on Acc Roll 1247/48; Acc Roll II 1281/82 and Acc Roll V 1308/9 for all manors except Woolstone. Woolstone based on PRO, SC6/756/9/3.

the fallow field for this purpose was not an exclusive privilege of the lord.

One manor, Stockton, exhibits some unique characteristics which were to lead by 1318 to the adoption of a three-field system. From 1248 onwards not far short of one half of the demesne in the fallow field (seventy to ninety acres) was regularly sown with barley. Indeed, nearly all the demesne barley was sown there, and a three-course rotation was being effectively operated within a two-field system. From 1308/9 onwards the accounts describe sowings in furlongs rather than in fields, and it is not until 1317/18 that we learn that the furlongs had been reorganized into three fields by that date. The Middle Field was then sown with 122 acres of barley, dredge and peas, the East Field with 140 acres of wheat and oats, while the West Field lay entirely fallow.³⁶ It was once thought that such changes from two- to three-field systems were common earlier in the Middle Ages, reflecting an intensification of land use as the supply of newly assarted land ran out, but it has recently been demonstrated that such changes were in fact rare and that the advantages were

fairly marginal.³⁷ There was certainly no clear advantage in terms of the demesne land available for sowing at Stockton: it remained at much the same level as it had been since at least 1247/48. It looks as though the introduction of a third field was no more than a formal recognition of a practice dating back half a century or more. It might be argued that there was no real change at all, that 'Middle Field' could just be a new name for a number of furlongs without any geographical coherence and constituting one of the three 'seasons' like the 'leyes' of Sussex.³⁸ This is unlikely, however, since from 1310/11 onwards the Stockton accounts name specific furlongs lying in East Field and West Field (three or four in each) which appear as part of Middle Field in 1317/18. In addition, some of the furlong names (*Westlangelonde* and *Estlangelonde*) suggest adjacent blocks of land.

It is rarely possible to determine whether the demesne lands in each of the open fields lay in blocks or intermixed with the strips of the tenants. Recent work

³⁶ Acc Roll IX 1317/18 Stockton.

³⁷ H S A Fox, 'The alleged transformation from two-field to three-field systems in medieval England', *Econ Hist Rev*, 2nd series, XXXIX, 1986, pp 526-48.

³⁸ Brandon, 'Arable farming in a Sussex scarp-foot parish', pp 63-9.

on cropping arrangements in Sussex, Oxfordshire and Huntingdonshire has demonstrated that, even within regular common-field systems, the demesnes in each field might be entirely integrated or located in just a small proportion of the furlongs, although in one case there is a suggestion that this might only have been achieved by exchange and purchase in the thirteenth century.³⁹ Unfortunately, our accounts provide little detail about individual furlongs within the fields but what there is suggests that demesne and tenant lands were often intermixed. At Woolstone two acres of demesne arable 'lying among the villeins' lands' was let out to one Stephen of Canterbury in 1336, to which was added in the following year two more acres of demesne 'lying among the lands of the freemen'.⁴⁰ The strongest evidence comes from Stockton (1310/11) where five furlongs sown with wheat in the West Field (eighty-two acres) were all said to lie 'next to the villeins'.⁴¹

This is not to say that the demesnes were scattered in strips all over the fields. On most of these manors furlongs were probably not numerous since the smooth chalk hills threw up few natural obstacles to limit furlong-size. The demesne crops of Stockton were sown on only about a dozen furlongs altogether. In any case, considerable blocking of demesne land might well occur automatically given the great size of the demesnes relative to the tenant lands. On most manors the demesne in any one furlong was likely to account for at least half of the land, and it would therefore not be difficult to plough,

manure, reap and graze it in severalty. Only at Patney did the tenant lands greatly exceed the demesnes, and it may have been partly for this reason that the demesne arable was leased to the tenants shortly before 1298/99.

Where the position of the open fields can be located with any certainty they seem to have lain entirely on the chalk uplands and particularly on the calcareous loams or 'redlands' of the middle chalk, even where good vale land was available. At Little Hinton, the West Field included eight-five acres of demesne next to the Ridgeway in 1247/48 and the custumal mentions arable demesne let out to tenants at *Lameressland* (Lammy Down) at an elevation of over 200 m.⁴² At Enford some of the villeins were obliged to carry manure from the lord's courts to the furlongs above *Wolterdene* (Water Dene), *Waddene* and *Westersdene* (Wexland Dean) and to other locations high above the dry valleys.⁴³ At Stockton land above the dry valley of *Halrecumbe* lay in the East Field, while at Overton a large part of the East Field lay on *Wytehill* (White Hill above Lockeridge Dene).⁴⁴ At Wroughton a whole suite of fields lay at Hackpen immediately below the Marlborough Downs. The evidence is admittedly fragmentary but it is confirmed by the parish surveys in the Victoria County History which time and again locate the arable on the lower and middle reaches of the chalk hills. Such a location was no doubt vital to the efficient operation of the sheep-corn husbandry characteristic of the region. One factor behind the leasing of the Patney arable may have been its location entirely within the Vale of Pewsey: one of the fields leased consisted of sixty-six acres 'on the sand' (*in sabulone*) and the other sixty-nine acres 'on the clay'

³⁹ P F Brandon, 'Cereal yields on the Sussex estates of Battle Abbey during the later Middle Ages', *Econ Hist Rev*, 2nd series, XXV, 1972, pp 402-20; Roden, 'Demesne farming in the Chiltern Hills', pp 9-23; P D A Harvey, *A Medieval Oxfordshire Village: Cussham 1240-1400*, 1965, pp 17-23, 41-4; M P Hogan, 'Clays, *culturae* and the cultivator's wisdom: management efficiency at fourteenth-century Wistow', *Ag Hist Rev*, 36, 1988, pp 117-31. For a Wessex example of demesne cultivation apparently based on furlongs, see N S B and E C Gras, *The Economic and Social History of an English Village: Crawley, Hampshire, AD 908-1928*, Cambridge, Mass., 1930.

⁴⁰ PRO, SC6/756/9/5-6, 1335/36 and 1336/37.

⁴¹ Acc Roll VI 1310/11 Stockton.

⁴² Acc Roll 1247/48 Little Hinton; Custumal f 170r.

⁴³ Custumal f 114v.

⁴⁴ Acc Roll V 1308/9; VI 1310/11, 1311/12; VIII 1315/16; IX 1317/18 Stockton; Acc Roll VII 1314/15 and VIII 1315/16 Overton.

TABLE 8
Mean rates of sowing given in all accounts between 1280 and 1318

Manor	Number of accounts	Bushels per acre Wh*	Be	Ba	O
Enford	11	2	2	2	2 1/2
Wroughton	14	1 1/2	2	2 1/2	3
Stockton	12	2	2	2 1/2	2 1/2
Overton	11	1 1/2	2	2	2 1/2
Alton Priors	10	1	1 1/2	2	—
Little Hinton	4	1 1/2	1 1/2	2	2 1/2
Patney	3	1 1/2	1 1/2	2 1/2	4
Woolstone (1309–39)	7	1	2	2	2

* Abbreviations as for Table 5.

Sources: Based on Acc Roll I 1279/80; Acc Roll II 1281/82, 1282/83; Acc Roll III 1298/99; Acc Roll IV 1306/7, 1307/8; Acc Roll V 1309/9; Acc Roll VI 1310/11, 1311/12; Acc Roll VII 1313/14, 1314/15; Acc Roll VIII 1315/16; Acc Roll IX 1317/18; Acc I Stockton 1304/5; Acc 53 Wroughton 1304/5.

(in *argillo*), locations probably unsuitable for fertilization by sheep-folding.⁴⁵

III

In spite of the constraints of operating within township open-field systems, one might expect the rather flexible arrangements described above to have encouraged a more intensive cereal husbandry than seems to have been the norm in the Wessex downlands, where extensive arable and sheep-corn regimes have been identified as the characteristic types of demense farming in the century before the Black Death.⁴⁶ Accurate estimates of productivity require long series of consecutive accounts – generally lacking for the St Swithun's manors – but enough work has been done on other southern English estates to provide a framework within which our imperfect data can be usefully considered.

Mean sowing rates for the priory's Wiltshire manors are given in Table 8. These rates were very low compared with other estates in a similar geographical situation. Sowing rates were almost twice as heavy on the bishop of Winchester's Wiltshire manors between 1271 and

1299.⁴⁷ Nevertheless, comparable yields per seed sown were achieved as Table 9 demonstrates. The figures in Table 9 are a useful indicator of broad differences between manors but they are too random and imprecise to allow any firm conclusions. Furthermore, the value of calculations of yield per seed has been questioned in recent work as tending to produce a misleading picture of uniformity over widely differing regions. The calculation of yields per acre seems better to reflect diversity of practices and to locate more intensive regimes which would otherwise remain largely hidden.

For such calculations consecutive accounts are required, and the only two sets covering all the priory's Wiltshire estates (1281/82 and 1282/83; 1314/15 and 1315/16) have been used in Table 10. For Woolstone in Berkshire, such data are available only for 1335/36 and 1336/37 (Table 11). Taking Tables 9–11 together, gross yields per seed compare favourably with other estates in southern England. The yields of all main crops were a little higher than those on the Westminster Abbey estates in Essex and Hertfordshire between 1271 and 1324; about the same as the Sussex estates of Battle Abbey in the later fourteenth century; considerably

⁴⁵ Acc Roll III 1298/99 Patney.

⁴⁶ J. P. Power and B. M. S. Campbell, 'Cluster-analysis and the classification of medieval demesne farming systems', *Trans Inst Br Geog*, new series, 17, 1992, pp. 227–45.

⁴⁷ Titow, *Winchester Yields*, p. 42.

TABLE 9
Typical gross yields per seed as given in all accounts between 1280 and 1318†

Manor	Gross yields per seed (bushels)			
	Wh*	Be	Ba	O
Enford	4	3	3	3
Wroughton	4	3	3 ½	2
Stockton	4	3	4	2 ½
Overton	2 ½	3	3 ½	2 ½
Alton Priors	6	—	6	4
Little Hinton	5	3	5	2 (4 accts)
Patney	3 ½	—	4	2 ½ (3 accts)
Woolstone (1309-39)	5	3 ½	6	1 ½ (7 accts)

† In round figures as given by accounting officials. Except where stated, ten accounts have been used.

* Abbreviations as for Table 5.

Sources: Acc Rolls I 1279/80; II 1281/82, 1282/83; III 1298/99; V 1308/9; VI 1310/11, 1311/12; VII 1314/15; VIII 1315/16; IX 1317/18; Woolstone: PRO SC6/756/9/3-9.

TABLE 10
Gross yields per seed and gross yields per acre, 1282-83 and 1315-16

Manor	1282-1283		1315-1316	
	Gross yield per seed (bushels)	Gross yield per acre	Gross yield per seed (bushels)	Gross yield per acre
<i>Wheat</i>				
Enford	2.55	3.97	3.31	5.82
Wroughton	2.98	4.55	2.58	4.34
Stockton	2.39	4.62	3.92*	—
Overton	1.72	3.34	3.07	3.57
Alton Priors	3.48	3.66	5.95	6.35
Little Hinton	3.84	5.31	—	—
Patney	4.26	5.79	—	—
<i>Barley</i>				
Enford	2.67	6.96	2.78	5.60
Wroughton	2.93	6.76	2.62	6.60
Stockton	3.90	9.35	4.51*	12.63*
Overton	2.41	5.17	3.32	5.34
Alton Priors	4.38	6.76	7.98	11.89
Little Hinton	3.55	7.11	—	—
Patney	3.30	7.54	—	—
<i>Oats</i>				
Enford	2.14	7.44	1.73	3.35
Wroughton	2.15	6.36	2.86	9.23
Stockton	—	—	1.59*	3.94*
Overton	2.05	6.10	2.11	4.49
Alton Priors	1.49	4.22	3.50	6.47
Little Hinton	1.45	2.94	—	—
Patney	2.54	10.17	—	—

* Data for 1311-12.

Sources: Acc Roll II 1281/82, 1282/83; Acc Roll VII 1314/15 and VIII 1315/16.

TABLE 11
Gross yields per seed and gross yields per
acre at Woolstone, 1336-37

Crop	Gross yield per seed (bushels)	Gross yield per acre
Wheat	5.06	5.06
Barley	6.42	12.65
Oats	1.78	3.53

Source: PRO, SC6/756/9/7-8.

higher than the Wiltshire manors of the bishop of Winchester between 1271 and 1299; and not far short of the levels obtained on a large group of Norfolk estates between 1275 and 1324.⁴⁸ Given the low sowing rates on the St Swithun's manors the yields obtained per seed seem to have been more than satisfactory for an area where demesne agriculture generally lay towards the extensive end of the intensive-extensive spectrum. However when yields per acre are considered, it is evident that the priory's estates cannot match the intensity of production characteristic of some other groups. The Westminster accounts show yields almost twice as high for wheat and four times as high for barley, while on the Battle and the Norfolk demesnes the differences were even greater.

Although the general level of yields per acre was rather low on the St Swithun's manors, the picture was by no means uniform with some places showing much higher yields in particular crops. Yields of barley were high at Stockton in both sets of accounts and, for the later period, at Alton Priors and Woolstone as well, while the yield of oats per acre was unusually high at Wroughton at the later dates. To

some extent high yields per acre may be related to a deliberate policy of intensification through thicker sowings. The improved wheat yield at Enford by 1315 and 1316 may be associated with a change in the sowing rate from two bushels to two and a half bushels per acre from 1299 onwards. At Stockton a similar upwards movement may be connected with the high barley yields which characterized this manor. In general, however, most movements in sowing rates were downwards and when upward movements in sowing rates do occur in one crop they are usually accompanied by downward movements in others. Indeed, the poor yields of wheat at Overton, of barley at Enford and of oats at Enford and Overton may all be connected with reductions in sowing rates between 1284 and 1344.

Thicker sowings were not, of course, the only means by which the land could be made to yield heavier crops, and there is evidence that conscious attempts were made to improve productivity by other methods in a few locations. The excellent yields of barley and wheat at Stockton must owe something to the regular cropping of a large part of the fallows, culminating in the adoption of a three-field system, while the heavy yields of barley at Woolstone can probably be connected with the regular cultivation of a large area of legumes. Heavier inputs of labour for tasks such as weeding may also be a factor given the heavy and numerous customary services available on the priory's manor, but unfortunately the lack of works' accounts renders accurate calculations impossible. Fluctuations in the number and types of livestock, and therefore in the quantity of manure available, might also be expected to reveal some evidence of farming strategies. Livestock figures for a number of sample years are given in Table 12. In general the number of stock overall and on the individual manors remained quite stable unless temporarily disturbed by epi-

⁴⁸ D Farmer, 'Grain yields on Westminster Abbey manors 1271-1340', *Canadian Journal of History*, XVIII, 1983, pp 331-48; Brandon, 'Cereal yields on the Sussex estates of Battle Abbey', pp 402-20; Titow, *Winchester Yields*, pp. 45-7, 55-7 and 65-7; B M S Campbell, 'Land, labour, livestock and productivity trends in English seignorial agriculture, 1208-1450', in B M S Campbell and M Overton, eds, *Land, Labour and Livestock: Historical Studies in European Agricultural Productivity*, Manchester, 1991, p 161.

TABLE 12
Number of stock of different kinds of five Wiltshire manors* at Michaelmas 1248, 1280, 1299, 1309 and 1318

Year	Cereal acreage	Working stock horses	oxen	Other stock cows and bulls	young cattle	sheep	swine
1248	2099	16	168	37	24	4769	123
1280	2696	25	158	33	28	1900	143
1299	1865	37	158	32	46	4868	149
1309	2035	44	159	28	30	4735	193
1318	2052	41	167	48	56	5448	224

* Manors of Enford, Wroughton, Stockton, Overton, Alton Priors.

Sources: Acc Roll 1247/48; Acc Rolls I 1279/80; III 1298/99; V 1308/9; IX 1317/18.

TABLE 13
Livestock units per 100 cereal acres on five
Wiltshire manors, 1248-1318

Manor	Livestock units* per 100 cereal acres in				
	1248	1280	1299	1309	1318
Enford	40.2	21.9	44.4	35.1	47.0
Wroughton	40.1	29.6	48.9	49.0	42.6
Stockton	28.7	19.5	28.7	26.2	31.3
Overton	72.5	23.8	59.8	48.5	48.6
Alton Priors	28.3	23.3	29.6	30.7	45.0
All manors	36.7	21.5	43.1	35.5	44.4

* Livestock units = (horses $\times$ 1.0) + (oxen, cows and bulls $\times$ 1.2) + (immature cattle $\times$ 0.8) + (sheep $\times$ 0.1) + (swine $\times$ 0.1).

Sources: as for Table 12.

demic disease such as devastated the sheep flocks in 1280. At first sight there appears to be some increase in the ratio of horses to oxen, but this is almost entirely due to one manor, Enford, where half the oxen were replaced by horses between 1282 and 1299.

To compare the stocking of these manors with that of other groups and to relate stocking to productivity, livestock units per 100 cereal acres have been calculated (Table 13), using the method devised by B M S Campbell.⁴⁹ The stocking rates seem to be quite favourable compared to those calculated for other areas. Campbell has suggested mean rates of 41.9 (1250-99) and 44.1 (1275-1324) for a large sample of estates throughout the country, figures very much in line with those for the priory's

Wiltshire estates.⁵⁰ However, the figures for individual priory manors show considerable variations from the mean due largely to the uneven distribution of sheep flocks which are concentrated at the two manors of Overton and Enford. At Wroughton on the other hand - a manor with extensive vale pastures - oxen were largely responsible for the high stocking ratio, and at Alton Priors the number of oxen was increased from about thirty to fifty between 1282 and 1318. It is on these manors that some relationship between stocking ratios and yields can be detected. At Alton Priors the increase in cattle numbers between 1309 and 1318 coincided with a reduction in the sown acreage by nearly one-quarter and with greatly improved yields of all main crops. At Wroughton, always heavily stocked with cattle, a similar reduction in the area sown with oats from 1309 coincided with a substantial rise in oat yields. However, on manors where sheep were the major element there is virtually no correlation between stocking ratios and grain yields. Stockton which had high barley yields has a very low stocking ratio, while Overton which had the highest stocking ratio of all experienced very poor yields. In spite of the evidence for the systematic folding of sheep over the demesne arable, arable and sheep farming do not seem to have

⁴⁹ Campbell, 'Land, labour, livestock and productivity trends', p 153.

⁵⁰ *Ibid.*

been regarded as parts of an integrated system.

There are thus signs that the priory was concerned to encourage productivity initiatives on some manors and in connection with some cereal crops, using a wide variety of methods – thicker sowings, cropping of fallows, the use of legumes and heavier stocking ratios based on cattle. Yet, it has to be said that the general pattern remained extensive throughout the period of the surviving accounts. The scope for innovation was no doubt limited by the necessity of working within a long-established framework of settlement and field arrangements both of which militated against the development of consolidated demesnes. However, somewhat similar conditions existed elsewhere – on the downland estates of Battle Abbey, for example – without preventing considerable arable intensification.

Kathleen Biddick's work on a number of manors belonging to the bishop of Winchester in the early thirteenth century has shown that much of the grain produced on the demesnes was consumed by the bishop's household and the manors themselves.⁵¹ The bishopric is seen as practising a satisfier strategy in which production for the market was a secondary consideration, in contrast to some other ecclesiastical institutions where at least a proportion of the estates, with good access to markets and shipping, was geared to the production of cereals for sale. Furthermore, there seems to be a close correlation between production for sale and the adoption of intensive systems of cultivation. The satisfier strategy was even more evident on the St Swithun's manors as Table 14 demonstrates.

In spite of their low level, sales of corn from the Wiltshire manors were consider-

TABLE 14
Destination of grain crops from the
Wiltshire estates: percentage of grain sold,
sent to the priory and consumed on manors,
1267-1318

Grain	Percentage		
	<i>sold</i>	<i>sent to priory</i>	<i>consumed on manors</i>
Wheat	32.1	27.6	40.3
Bere	11.0	28.6	60.4
Barley	8.6	24.3	67.1
Oats	13.9	15.5	70.6

Sources: Acc Roll I 1266/67 and as for Table 8.

ably higher than sales from the priory's estates as a whole due to well above-average sales from a few manors. At Stockton 51.6 per cent of the wheat and 21.8 per cent of the barley produced was sold, while wheat sales were even higher at Little Hinton and Patney before they were disposed of at the end of the thirteenth century. The high yields and sophisticated cropping system seen at Stockton may well be connected with its function as a sale manor.

The importance of corn sales for the economy of the priory as a whole may well be obscured by the accident of documentary survival. Accounts for the receiver's manors have survived in some numbers, and it was this officer who was responsible for the supplies of grain used in the monastery. The obedientaries, who held about one-third of the manors, required cash rather than produce to defray the expenses of their offices. Thus, the hordarian, who held the manor of Woolstone and took over Little Hinton from the receiver, was responsible for providing the priory kitchen with a cash sum of 13s 4d per day for the purchase of foodstuffs not available on the manors.⁵² Very few manorial accounts for the obedientaries' estates have survived, but at the one manor for which we have a good

⁵¹ Kathleen Biddick, 'Agrarian productivity on the estates of the bishopric of Winchester in the early thirteenth century: a managerial perspective,' in Campbell and Overton, *Land, Labour and Livestock*, pp 95-123.

⁵² G W Kitchin, *Compotus Rolls of the Obedientaries of St Swithun's Priory, Winchester*, Hampshire Record Society, 1892, p 255.

series (Woolstone) no less than 72 per cent of the wheat and 42 per cent of the barley produced was sold on average during the period 1309-39. This was also a manor with unusually high yields, high stocking ratios and large-scale cultivation of legumes. A similar picture of adaptive and innovative strategies on a few manors, within a large complex of estates generally characterized by extensive farming, has emerged from recent studies of some demesnes of the bishop of Winchester.⁵³

IV

In this study it has been argued that the arable farming patterns found on the Wiltshire estates of St Swithun's Priory were developed within the limits of township fields, organized under traditional two-field systems, and located within an

anciently settled and heavily manorialized countryside in which there was little scope for demesne consolidation and for further large-scale assarting. Although the prevailing field systems were skillfully manipulated to provide a degree of flexibility in cropping arrangements and considerable independence of peasant agriculture, the rather low yields and stocking ratios on most manors suggest little intensification of the priory's arable regime during the period of the accounts. On a few manors, however, evidence of higher yields, new cropping practices, heavier stocking and an emphasis on the production of some cereals for sale point to a more enterprising approach and show that the priory's policies were not entirely conservative. The number of such examples is admittedly small although there is reason to believe that it might have been greater than the surviving accounts suggest. For the most part, however, the priory seems to have been satisfied with such levels of cereal production as were deemed necessary to provision the monastery and to meet the running costs of the manors.

⁵³ Biddick, 'Agrarian productivity on the estates of the bishopric of Winchester', pp 95-123; C Thomson, 'The determinants of land productivity on the bishop of Winchester's demesne of Rampton, 1208 to 1403', in Campbell and Overton, *Land, Labour and Livestock*, pp 183-210.