

FOUR CENTURIES OF FARMING SYSTEMS IN HAMPSHIRE, 1500 - 1900.

By G. E. FUSSELL.

IN some parts of Hampshire the physical appearance of the county four hundred years ago was rather like what it is to-day, but in others it was very different. The New Forest occupied all the area west of Southampton Water and was certainly much less densely inhabited, a few verdurers and a few other inhabitants only being found in the whole of that area. North of the Forest, Leland found all the way from Salisbury to Winchester champaign, by which I think he means open down, probably almost, if not entirely, uninhabited and uncultivated, occupied if at all by the wandering sheep and its shepherd. Between Winchester and Southampton there was "mouch drye firen Ground," enclosed and reasonably wooded. Thence to Portsmouth, the cultivated land was predominantly enclosed, but there is little indication what proportion of the whole was cultivated. Northwards to Bere Forest there was some "playn Ground," a term now not to be explained, and after Bere to Bishop's Waltham some enclosures and so on for three miles, thence four miles back to Winchester was "champaign."

Further north there were Waltham Forest, Alice Holt and so on, and right across the north of the county was another range of downs from Basingstoke to Andover into Wiltshire, to the north of which was the fertile stretch from Odiham to Kingsclere and East Woodhay. Most of the Downs were then the haunt of the wild birds we no longer know, but doubtless rang with the haunting cry of the peewit and the curlew as well as the bustard, and were grazed by long-vanished herds of wild deer.

Leland often remarks that a piece of country is "metely well wooded" or "good Corne and some Grass," neither of which carries implicitly in it the physical state of its occupation, or non-occupation. Both descriptions would, as Slater suggests, cover land being reclaimed from forest or down without any extensive arable common fields, and being taken for individual occupation and not physically enclosed by hedge, fence, or wall, or places where small common arable fields were surrounded by much later extensions of cultivation. It is, however, clear from Leland that land had already been enclosed in the south-eastern part of Hampshire early in the 16th century, while the county to the north was all open except, of course, the forests, but open and uncultivated in a general sense.

The fact, of course, is that the larger part of the county was unsuited to primitive agriculture, and that is what the farming of medieval times should properly be called. It has indeed been suggested on the basis of Leland's evidence that except for some farming between Stockbridge and Winchester, and Winchester and Southampton, a district "apter for cattle than corn," it is unlikely that very wide areas of the county were cultivated at all in the reign of Henry VII and Henry VIII. Fresh land was, however, then being taken in, and this was doubtless by direct enclosure from maiden down or forest clearance. This process probably continued through the 17th century, and is how the most of Hampshire came into cultivation.

The open field arable strip system, though found in the county where there were settlements, was confined to a relatively small area of the county since only 6 per cent. of the total area was affected by the 18th century method of enclosure by Private Act. In the north-east of the county there had been some of this settlement mainly in early medieval times by the two-field arrangement characteristic of the bleak chalky upland from Lincolnshire to Somerset, but here on the better soil and in the better physical situation changes for an improved cultivation had already been made by the 13th century, when the three-field system in the district shows that farming was progressive so long ago as that.¹

In so large a county with such divergent conditions of elevation and soil there could never have been a particular type of farming usual all over the county, but there is some information about a few widely separated villages. At Crawley there was no orderly system in arable or pasture farming. The same piece of land might be used at one time for tillage and at another for pasture just as any modern farmer might use it, apparently on what was then known as the convertible husbandry, and here there was a good deal of buying and selling of small parcels of land as indeed there was elsewhere at that time. In Crawley this resulted in destroying "the old simplicity of virgates in South Crawley and farthinglands in North Crawley" making for "a ceaseless change in size and ownership of holdings."²

With the increase of population on a manor, and there is little doubt that population was slowly increasing once again after the ravages of the Black Death, the demand for tillage land would naturally increase, and the only way to supply that need in Tudor and Stuart times was by enclosing some part of the wastes which were then so very extensive. Sometimes this was done with permission, but any illegal enclosure or encroachment was always

1. Gilbert Slater, *English Peasantry*, 1907, pp. 239, 240. E. C. K. Gonner, *Common Land*, 1912, p. 242. H. L. Gray, *English Field Systems*, 1915, pp. 63-73.

2. N. S. B. Gras and E. C. Gras, *The Economic and Social History of an English Village*, 1930, pp. 99, 112, cf. John U. Nef in *Journal of Political Economy*, Vol. XL (1932), p. 101 et seq.

brought up in the Lord's Court, the trespasser, for that is what he was, being presented as having broken the custom of the manor. In the Court Rolls of Bramshott³ such presentments, while they do occur, were few until the 17th century, so it is likely that the pressure of population, or an improved farming technique, enabling one man to handle more land, or an increasing money economy, enabling a farmer to hire men to work his land and to produce for sale rather than for subsistence, or all three causes, were becoming more important then.

From these prosecutions, as we might call them, it is possible in some estates like Crondall to trace the steps by which large areas of forest land were brought into cultivation. A custumal of 1567 shows that tenants here were encouraged to grub up bushes, thorns, underwood, etc., in order to convert land into arable or pasture.⁴

The result of bringing more land under the plough opened the way for improved methods and helped to inspire them, but I think that Mr. Capes was mistaken in his suggestion that there were water meadows at Bramshott at a very early date. Writing apparently of the 14th century, he says: "Where there was little permanent grassland it had usually been appropriated by the Lord (of the manor); where there was more, as at Bramshott in the Valley of the Wey, the water meadows may have been cut up into lots each year, as we know they were sometimes." I do not think these were water meadows in the sense of having trenches and other works to allow of controlled flooding, but only in the sense that they may have been subject to natural flooding. The earliest made water meadows on record are those made in the late 16th century by Rowland Vaughan in Worcestershire, and those in the Hundred of Broad Chalke in Wiltshire mentioned by Aubrey in 1637.

N. S. B. and E. C. Gras have not been able to conclude that any novelties were being introduced into the husbandry practised at Crawley. The peasants there seem to have thought the open field system with its tiny plots, managed under the regulations of the Manor Court, the only method. At any rate they clung to it down to modern times, their chief anxiety being to keep the hedges and fences, balks and hurdles in proper condition to prevent injury to various holdings, and to keep open the roads and lanes, which was all very right and proper, and is essential to any system of good farming.

They accepted the fallow system, thinking that the land needed rest, as it did with their cropping. Manuring they thought worth while, so far as their meagre supplies of dung would go. Breeding of stock was an animal function and all that a man could do was to

3. W. W. Capes, *Scenes of Rural Life in Hampshire among the Manors of Bramshott*, 1901.

4. Francis Joseph Baigent, *Records of Crondall*, Hants Record Society, 1891, p. 168 et seq.

help in parturition. One man's sheep was as good as another's. There was complete democracy in animal intercourse, and a fine socialism in sharing diseases and parasites.

The Crawley peasants were dissatisfied with the size of their holdings which were often minute and they added, legally or illegally, bits of the Lord's demesne to round them out. They thought their pasture inadequate. For ploughing they preferred oxen to horses. Wheat was grown as a cash crop, and barley and oats were eaten by the peasants themselves, if not because they preferred them, then because it was a question of economy, and the final conclusion is that the men of Crawley lacked a theory of how things could be done differently and better. In spite, therefore, of their appreciation of the various uses to which the same land might advantageously be put at different times, there is not much sign of change in Crawley until the date of the enclosure in 1795.

There may have been much more at Bramshott where there was a greater proportion of waste to be enclosed, but real evidence is wanting. Farming in these parts of Hampshire remained stagnant for centuries, and such slight improvements as were made were probably only in the fields of rich landowners. The fact that waste and woodland was then being reclaimed was recognised by the Church's two questions—one, "If a stranger shall prescribe tithes in another parish and there shall happen afterwards barren and wast grounds to be tilled, whether the stranger that prescribeth, or the Church where the grounds do lie, shall reap the tithe"; the other, "If one shall have any right of tyth in a wood, and that wood become afterwards arable ground, whether his right continueth in the corn."⁵

Two inventories set out the household goods and live and dead stock of Hampshire farmers at the end of the Tudor period. J. Holloway of Kingsbury died about 1560. The inventory attached to his will is not so complete and detailed as it might be, but it includes a "feather bed and all things to it; the linen and the woollen; the brass and the pewter; a table and the apparell," the last being worth £3, a substantial sum in those days. A note is made of a bow and arrows, so Holloway was an armed man.

Some fifty years later farmer Richard Bech of Craly (Crawley) died and his goods were scheduled. His furniture included "one bedd and one bedsted, linnen, twoe Chests some Coffe, one tabell, barreles, Cevers and tobs." This was not much. Neither of these two farmers' houses indeed was very much better equipped than that of the labourer's of the day.⁶ Probably neither of the two houses had more than two rooms, a living room and a sleeping apartment, possibly with a loft above.

5. W. C. Bach, *Decimarum et oblationem tabula: A Tithing Table*, 1635 Pref., dated 1591.

6. See my *English Rural Labourer*, 1949, and P. F. William Ryan, *Stuart Life and Manners*, 1912, pp. 160, 161.

Both these men were farming on the mixed system. Holloway had the more livestock, eight kine, an ox, a steer, two weaned calves and three heifers. He had a mare which probably helped the ox and steer to haul his plough, and he had thirty sheep, seven hogs, six geese and some other poultry. Bech had only three ceine (kine) and a "bolloke" and sixty-nine sheep. His four "hourses" were probably plough horses.

Unfortunately Holloway's inventory does not specify the kinds and amounts of corn he possessed. It only states that he had corn worth forty shillings, two loads of hay and the wool of thirty sheep. Bech's executors were more particular and state that he had three and a half quarters of wheat, probably the yield of at least two acres of land, and eight quarters of barley in store, as well as some hay and thatches, so it is clear that the system he was following was the traditional one of winter corn, spring corn, fallow, the spring corn including the thatches. There were, in addition to the stores he had, seventeen and a half acres wheat and thatches in the ground, and he was effectively equipped with implements for his work. He had a plough and three harrows, a cart and a dung pot, no more and no less than the majority of substantial farmers of his day found necessary. Some few added a roller, but that implement was not generally used until a good deal later. Holloway only seems to have had a scythe, an edge stone and a wood knife, so ploughing must have forced him to borrow a plough or make a contract for the work with someone who owned one.⁷

Henry VIII was an enthusiastic horse-breeder and Holinshed states that he "erected a noble studderie for breeding horse, especially the greatest sort, and for a time had a very great success with them." He tried to enforce the same enthusiasm upon his subjects by statute, and of course everywhere horses were bred in great numbers for riding and for the pack saddle. Such districts as the Hampshire basin and elsewhere where common pasture was abundant were particularly devoted to horse breeding.⁸ On these common pastures where all the horse herd ran together at open range the danger of degeneracy was ever present, and in 1535 an edict was passed providing that all owners of farms and parks and enclosed grounds to the extent of one mile in compass should keep two mares "apt and able to bear foals of the altitude of thirteen hands at least, under a penalty of forty shillings," a large sum in those days. A similar penalty was also inflicted on any owner or farmer who knowingly permitted such a mare to be served by a stallion of less than fourteen hands. In 1541 it was further enacted that no entire horse under fifteen hands should be allowed to run in certain forests and districts: Mares, filly foals or even geldings

⁷. Bech's inventory is printed in Gras; Holloway's in Hubert Hall. *Society in the Elizabethan Age*, 1901, p. 157.

⁸. H. C. Darby, *Historical Geography of England before 1800*, 1936, p. 348 f.n.

that did not seem likely either to grow, or if mares, to be able to bear foals of reasonable stature, or to be able to perform profitable labour, in the discretion of the driver or drivers, were to be slaughtered and the carcasses buried to avoid annoyance.

Holinshed estimated that the capacity of cart and plough horses had improved by the time of Elizabeth, so it is to be hoped that the Hampshire breeders had improved their animals as much as those in the shires. "Our cart or plough horses (for we use them indifferently)," he wrote, "are commonlie so strong that five or six of them, at most, will draw 3,000 weight of the greatest tale with ease for a long journey. Although it used not to be a load of common usage which consisted of onlie 2,000 weight or fifteen feet of timber, forty bushels of white salt, or six and thirty of bale or five quarters of wheat, experience daily teacheth, as I have elsewhere remembered, that such as are kept for burden will carry 4 cwt. commonlie without any hurt or hinderance."

The average dead weight of an ox in 1610 was expected to be 600 lb. the four quarters according to an "Order for the management of the Prince's Household,"⁹ but Hampshire was not a county with a breed of cattle of its own, and there is therefore no specific history of its beasts at the time.

Besides horses and sheep the county was famous for its hogs and Fuller's praise of them is most likely to have been a correct description of them for a long time before. "Hampshire hogs," he wrote, "are allowed by all for the best bacon, being our English Westphalian, and which, well ordered, have deceived the most judicious palates. Here the swine feed in the forest on plenty of acorns . . . which, going out lean, return home fat, without either care or cost to their owners. Nothing but fulness stinteth their feeding on the mast falling from the trees, where also they lodge at liberty (not pent up, as in other places, to stacks of peas) which some assign the reason of the fineness of their flesh. . . ."¹⁰

The Hampshire farmers had established standards of good husbandry though in what these consisted it is difficult to say. That they were an accepted canon is shown by the terms of a lease of lands from one of his neighbours made so early as 1579 to Edward Biddle, a Hampshire yeoman. By it Biddle was constrained to undertake that he would "husbandly fallow and manure the premises each tillage season . . . according to the course of husbandry of this country."¹¹ The county was one of those classified by Markham as one where "all arable toils would begin at the latest seasons and the Ploughs and instruments would be of the smallest and lightest size, and of the least timber and the

9. G. C. Broderick, *English Land and English Landlords*, 1881, p. 49 f.n.

10. Thomas Fuller, *The History of the Worthies of England*, 1662. (ed. of 1840), Vol. II, p. 3.

11. Harl. MS., 1579, cited in Mildred Campbell's *The English Yeoman*, p. 171.

labour of all other is easiest," but that was only where the soil was light and had a "certain naturall fruitfulness."¹² On the sandy soils of Hampshire "mawme" was used as a fertiliser, and this probably had some value because it seems to have been the calcareous subsoil. The sheep fold, too, was a valued means of fertility. The system was to graze the sheep on the open down in the daytime and to fold them on the fallow and stubbles at night, and in some counties the Manor Courts made special regulations about the times and places where the sheep should be folded, though I have not found any of these for Hants.¹³

The 17th century topographers are not very explicit about the county, confining themselves to general remarks like Speed's that "the soile is rich for corn and cattle, pleasant for pastures and plentiful for woods." The general commodities produced were wool, clothes and iron. "Corn, honey and kersis" are added by the others, but this is as far as they go. Morden repeats Fuller's eulogy of the bacon, the sweetest in the kingdom, and makes an attempt to estimate the population in 1704, though this is based upon Chamberlaynes' *Angliae Notitiae* of 1669. He overestimated the total area of the county by some 400,000 acres, but states the number of houses as 26,850 and the inhabitants as 163,250 or six persons to a house. Assuming that the number of houses is reasonably accurate, and applying this number of persons to the acreage in 1939 of 957,752 acres the population density was 5.25 to an acre then, but there were several towns like Southampton, Winchester, Basingstoke and Andover which must have absorbed an appreciable proportion of these, even though they were tiny places judged by modern town population sizes.

The construction of water meadows developed during and in spite of the Civil Wars, and Capes¹⁴ says that the diversion of the local streamlets for that purpose led to social friction in the manors of Bramshott. The Lord himself (he was as amenable to custom as anyone else) was peremptorily ordered to restore the river to its channel, though a few years before he had allowed his tenant to flood his fields for a payment of two capons only.

The influence of the local gentry was no doubt of supreme importance in introducing better methods of farming and Capes comments favourably upon John Worlidge, the well-known writer of *Systema Agriculturae*, first published in 1669. "A country gentleman named Worlidge," he wrote, "one of whose family was brought from Petersfield to be buried in the Quaker's ground at Bramshott, may have done something by his personal influence

12. Markham's *Forewell to Husbandry*, 1620, p. 148, cf. Leonard Mascall, *Government of Cattle*, 1627, pp. 297-298.

13. John Norden, *The Surveyor's Dialogue*, 1607, pp. 227, 232.

14. *op. cit.*

to improve methods of cultivation in the neighbourhood ; in any case his writings are of interest as they illustrate the changes that were going on, and still to be effected. He insists upon the importance of increased supplies from the pasture for the winter feeding of stock, and urges that water meadows, flooded by artificial means, should be still further increased." The improvements that Worlidge discusses may have been slowly being introduced to the manors of Bramshott, but 17th century writings on farming are largely academic ; they are more concerned with what ought to be than what is. Unfortunately, too, Worlidge, does not mention the county in relation to any specific improvement or system of farming, and any report that may have been prepared for the Royal Society's enquiry of 1667-68 has vanished.

The return of the Squirearchy to their estates after the Restoration led them, because of necessity, to go in for farming and to try to make it pay. Some fifty years later they were already taking the lead in introducing new things, and in studying the different methods of farming of different districts. Such a man was Edward Lisle of Crux Easton, Hampshire, who farmed his land there in the reign of Queen Anne.

His interest in his job was so great that he lost no opportunity of discussing it with all and sundry, and as he had relations and business connections in several counties he was able to collect a lot of information. Naturally much of it describes his own methods and those of the neighbours he talked with, so a fair idea of north Hampshire farming can be gathered from the scattered remarks he makes.¹⁵

Hampshire farming was by no means behind the times. Some years later "Turnip" Townsend got a great reputation for his interest in turnips on his estate in Norfolk, but turnips were already being grown in North Hampshire. Lisle says that in 1707 Newtown men came from Wales to do the hoeing because they had made a business of this work ; so the turnip husbandry must have been well established by that date. The "new" grasses, the clovers and ryegrass, or sainfoin, had been grown on the chalk downs for some fifty years.

These things are undoubtedly late 17th century innovations. They had only been discussed by the writers of farming textbooks before the Civil War and it is likely that they were only seen in the fields after the return of Charles II. The ordinary old-established crops, wheat, barley, peas and beans and vetches, were, of course, a normal part of farming routine.

The only source of manure in those times was the animal, but people were beginning to try out various waste products. Amongst these malt dust had been used for at least a hundred years in the

15. Edward Lisle, *Observations on Husbandry*, 1757, *passim*.

neighbouring parts of Berkshire. One Ilsley farmer, a Mr. King, told Lisle that it was usual there to sow malt dust with the wheat seed and harrow the seed and manure in together, and a Mr. Clerk, who was apparently a brewer, put ten quarters of kiln dust per acre on grassland and on barley ground in January or February. He found this very successful, although it was a good thing if a shower of rain fell just after the dust had been spread.

At Lichfield, Hampshire, and thereabouts, an approved method of dunging was to carry out long dung and put it on the chalk ley. It was left lying for some time and then ploughed in, the crop being sowed on this one earth. Such a method was only possible on light land, because heavy land required more than one ploughing. In the hill country the pot dung was carried out in July, ploughed in, and the land sown with wheat at the end of August or beginning of September. This was usual on ley that had been down for two years.

King of Ilsley was also a believer in the value of woollen rags, the effect of which lasted for four or five crops. He bought them in London at 2s. or 2s. 6d. a cwt., and had them cut into pieces an inch or so square for 6d. per cwt. The bits were scattered from a seed lip in July just before the second fallow ploughing and rotted down by seed time, or so he claimed.

Running out land at the end of a tenancy is no new thing. The farmers of Woodhey were in high repute in Lisle's day; but they tried to do this very thing. It was a common practice with them to chalk their meadows heavily three or four years before their term expired so that they got very heavy crops of grass during those years, but left the land in a run-down condition. Chalk did not carry so much fatness as dung; so Lisle did not see any real objection to chalking meadows which obviously made them carry a heavy crop—provided that they were also refreshed with dung. On pastures chalking was not harmful because it enabled a heavier herd of stock to be kept and the animals' excreta kept the pastures "always in the same vigour." And it was excellent on hop-clover and rye-grass ley.

There was great diversity of opinion amongst the farmers about the quantity of seed which ought to be sown on an acre of land. Some sowed only two and a half bushels, but others as much as four bushels of wheat. Lisle could not understand this, and I don't think anyone else can because he gives no figures for yield so it is not possible to judge from results. Change of seed was considered important. The farmers of Crux Easton and the hill country bought their seed at Newbury because they were on a white earth and the people round Newbury bought their seed at Crux Easton. Lisle estimated the value of this change of seed at half the manure required for the crop. Another point on which

there was disagreement was the time to harvest wheat. In different parts of the county it was cut earlier or later. In Lisle's words, "Beyond Winchester they cut red straw wheat greenish to amazement, a fortnight earlier than we should do, and let it lie in gripp a fortnight, often turning it, and for reaping, turning and binding it into sheaves they pay six shillings per acre, whereas at Crux Easton we pay four shillings—but they think theirs the best husbandry"—naturally enough.

Oats were seeded heavily at five bushels per acre, but here again Lisle neglects to say what the yield was; and as to other crops he notes down the rates of seeding in several other counties but not in Hampshire. There are, of course, a good many details relating to the success or failure of his own crops in different seasons and a good many notes about the different small experiments he made. He tried various ways of treating crops, and he is careful to say whether he met with success or not.

The most interesting part of his notes on Hampshire arable farming is, however, the picture he draws of its advanced character. It indeed compares very favourably with the most famous innovating county, Norfolk. All the new crops were grown in Hampshire, and they appear to have been well established by Queen Anne's reign. This is quite as early as Norfolk, and distinctly a feather in the cap of North Hampshire farmers of that time.

By the 18th century the county was becoming famous in the writings of the topographers who praised the wealth and variety of its productions, and already a good deal of the downland had been converted from sheep walk to wheat land. This was especially so between Winchester and Salisbury, a distance of some twenty-odd miles. Here the sheep made a great impression on Defoe. "But," he says, "'tis more remarkable still; how a great part of these Downs comes by a new Method of Husbandry, to be not only made Arable, which they never were in former Days, but to bear excellent Wheat and great Crops too, tho' otherwise poor, barren Land, and never known to our Ancestors to be capable of any such Thing . . . for by only folding the Sheep upon the Plow'd Lands, those Lands, which otherwise are barren, and where the Plow goes within three or four Inches of the solid Rock of Chalk, are made fruitful . . ." and grew crops of wheat, rye and barley; but between Chertsey and Hartleyrow towards Basingstoke was nothing but a "Black Desert," although before he reached Basingstoke he came to a pleasant fertile country enclosed and cultivated like the rest of England.¹⁶

In 1748 Dr. Pococke saw the first marl-pit of his experience at Beaulieu, and then such pits were scattered all over the county.

¹⁶. *Tour*, 1724, Letter II, pp. 14, 26; see also *Annals of Agriculture*, XXIII, 1795, p. 356, where the farming is not considered good.

He saw marl mixed with dung used in some places. Apparently marling on newly broken-up grassland was usual, and the manure was also used on arable, here as well as in Surrey and Kent. At some places it was near the surface, and round Selborne, white malm, when turned up by the plough to the frost and rain, mouldered to pieces and became manure itself, bearing good wheat and clover.¹⁷

Young traversed the district between Salisbury and Romsey in 1768. This was generally enclosed and under a course of fallow, wheat, oats, peas or beans, or vetches, or a variation. Turnips were grown and folded by sheep. Chalk was laid on the land at twenty loads an acre and the farms were small, of £20 to £60, a farm of £200; or 150 to 200 acres being large. On to Winchester the husbandry was the same. Young went to Crux Easton to verify some of Lisle's writings, but could find no memory of oxen being used for ploughing in the parish. Hundred-acre farms were considered large. Round Alton conditions were much the same, but the course was different, being fallow, wheat, barley, clover and trefoil for two years. Vetches were fed off by sheep or cut green for horses. The growth of turnips had there much increased lately, but a heavy wheel plough drawn by four horses was not compatible in Young's eyes with this advanced cropping. Between Alton and Farnham the land was richer, but there was no material difference in the farming until the hop country was reached. The land between Southampton and Winchester, he later found, contained much waste and poor cultivation, with unenclosed chalk hills near Winchester, but in the county as a whole there were turnips, clover and a good deal of sainfoin, unmistakable signs of improved husbandry in his judgement.¹⁸

This kind of farming produced a great deal of goods for sale, the district being more especially famous for fine wheat, as well as for admirable hops, and the other cereals. Moreover, it was well furnished with black cattle, abounded in sheep and consequently in wool, to say nothing of bacon and honey. Malt was sold at Andover and Basingstoke and vast quantities of grain and hops sold at fairs on the edge of the county.¹⁹

Supplies of wood were not so plentiful as they had been and the New Forest was much neglected and greatly decayed. In 1789 a Commission was appointed and revealed the extent of the damage. No planting had been done under William III's Act. "Cattle were turned out, the furze and heath cut and the marl dug by those who had no privileges. The Forest was in fact robbed under every

17. *Dr. Pococke's Journey*, 1750, I, p. 82. Wm. Ellis, *Modern Husbandry III*, May, p. 67. Gilbert White, *Selborne*, p. 4.

18. *Six Weeks Tour*, 1768, pp. 167-181. *Eastern Tour*, 1771, III, pp. 202-241. As to sainfoin see Nathaniel Kent, *Hints to Landed Gentry*, 1775, p. 39.

19. John Campbell, *Political Survey of Great Britain*, 1774, I, p. 360.

pretext. The deer from being overstocked died in the winter by hundreds from starvation. On every side encroachments were made by those whose business it was to prevent them. The rabbits destroyed the young timber and the old was stolen,"²⁰ but the story of the New Forest is a special one and is apart from farming. Besides this, it has been well told in a recent authoritative work and needs no commentary here.²¹

Besides marl and mawme and chalk, lime was fairly widely used in the county by the 1770's.²² The hop gardens were a commonplace of the topographers and provided employment for the labourers of Selborne, the women of the parish being employed in picking in September. These hop gardens were on a narrow strip of land only a quarter of a mile wide, but in a long line ten or twelve miles north of Alton.²³

The water meadows, commented upon so long before, had been developed and extended where the streams allowed and the early young grass stimulated by this means was useful for ewes and lambs in the spring.²⁴

The methods of cultivation and the crops grown had not materially changed by the end of the century, but there were already the beginnings of livestock improvements by 1813 when Charles Vancouver produced his exhaustive *General View of the Agriculture of the County of Hampshire*.

The chalk of Portsdown, as well as Portsea and Hayling Island and that neighbourhood was then in the open common field, and under the old three-course rotation. The farmers had, however, so far shown their initiative by using the fallow field—the course was wheat, peas and beans, fallow, with, naturally, some barley and other crops—for the cultivation of miscellaneous green crops for which there was a good sale in the growing town of Portsmouth.

This was a proceeding that the pundits had always considered impossible, and was one of the main arguments for enclosure and separate occupations.

In these open fields the necessary arrangements were apparently made by the Manor Court or perhaps the Vestry, but under whatever authority they were made their catch crops were always off the fallow field in time to admit the land being prepared for receiving the seed. The land, both fallow and that part green cropped, was dunged and an average yield of twenty-six bushels of wheat resulted. The same was done on the open fields at Harbridge, Heberley and Ellingham. A higher yield of thirty bushels was gained on

20. John R. Wise, *The New Forest: Its History and Scenery*, 1863, p. 45.

21. F. E. Kenchington, *The Commoner's New Forest*, 1942.

22. (A. Young) *Political Essays: State of the British Empire*, 1772, p. 129.

23. John Lawrence, *A New System of Agriculture*, 1726, p. 109 et seq. White, *Selborne*, p. 15.

William Marshall, *Rural Economy of the Southern Counties*, 1798, II, p. 48 ff.

24. Kent, *Hints*, 1775, p. 53. Marshall, *ibid.*, pp. 320-329.

the enclosed land in the district, perhaps because of the land being dressed with a compost of town dung and other home-produced manure.

A list of no less than twenty crops is set out in Vancouver's report though some of them were rarely grown, and Vancouver divided the county into six agricultural regions. It would be rather much to deal with each of these regions separately because their methods were not widely different, though there were necessarily minor variations. Over a good deal of the county a summer and winter fallow was still considered indispensably necessary as a preparation for wheat, but elsewhere it followed a legume, grey peas, beans, or clover or other ley, and the seed bed was made by two or three ploughings, occasionally more. The seed was harrowed in and rolled and spring fed by sheep, cows, etc., a practice much condemned by some critics, who thought that sheep cropped it too close and cattle destroyed the plant by tearing it out by the roots. The credulous idea that spring grazing promoted tillering was pronounced illusory for these reasons. Yields seem to have varied between twenty-four and thirty-six bushels an acre. Rye for a crop was cultivated only in the light lands in the valley of the Avon and at Christchurch on the borders of the New Forest.

Barley, always an important crop to our forefathers, was sown after turnips or after wheat stubble winter fallowed. It was often difficult to make a tilth after turnips fed late, but four bushels of seed was broadcast on the best seed bed that could be prepared, dragged and harrowed in and an average yield was thirty-five bushels. Oats was a very general crop, but was often sown on land exhausted by two previous white crops, or after wheat or ley, broken as early as possible the preceding winter. They were used for horse feed as were the awns of barley and the "husks" of wheat mixed with their corn or with chaff.

Peas were sown on wheat, barley or oat stubble, once ploughed, at three and a half to four bushels an acre; the yield was very various. Beans were sometimes dibbled in the wheat stubble upon the stale furrow, but other farmers cleaned the wheat stubble and dibbled the common horse bean in February. Yields varied between twenty-five and thirty-six bushels an acre. Tares were grown for folding off with sheep. A little buckwheat was sown by gentlemen for pheasants, but it was not a usual crop.

Turnips were rapidly gaining ground amongst the most respectable farmers and best agricultural characters in the county, but some were grown on land that was too heavy for folding. Swedes and kohl rabi were also grown. Rape was sometimes sown on land not suited to turnips, broadcast between May and July, harrowed in and fed off with sheep at the latter end of the summer. Cabbages were seldom grown for cattle feed, but in

the south were extensively cultivated for the hospitals, for Portsmouth and Gosport markets and for shipping. Potatoes were judiciously attended to in a greater or lesser degree throughout the county. They were moulded up with a strong double-breasted plough, a stronger edition of which was used for taking them up. Clover, ray grass and trefoil were used in seeds sown under the barley of the four- or five-course rotation where that was practised.

One of the most important features of chalk land farming in the south-west was sainfoin which had been introduced to the downland so long before. It was broadcast on a clean tilth and harrowed in with oats and barley. About 10lb. of clean milled trefoil was sown with it because it was apt to be thin and feeble the first year. Both were usually left to seed the first summer in order to strengthen and thicken the young plants of sainfoin. Lucern was grown on a small scale by a few landowners amongst whom Mr. Sates of Fareham was prominent, and burnet, which was so large a part of the natural herbage of the downs, was cultivated by Mr. Birt of South Warnborough. Mr. Birt also tried yarrow, but neither of these plants has ever really attained the dignity of a cultivated crop.

Quantities of hops were grown in the neighbourhood of Farnham, the best and most valuable grassland being broken for the purpose, especially if near a large market or other town from which regular supplies of stable manure could be secured. Though speculative, the profits were very high in a successful year, rising to so much as £52 an acre.

A fairly wide variety of implements were used. Ploughs varied from the old heavy high-gallows two-wheel plough drawn by four horses or oxen to the light Norfolk plough with two horses and a driver only, and Vancouver throws out a small gibe at "gentlemen accustomed to a light land country" who "too frequently pronounce hastily on the power required, as well as the nature of the instrument most proper for working with effect in stronger lands and with which they are in a great measure unacquainted." He doubtless meant this for Arthur Young who had constantly and for many years proclaimed the universal applicability of the Norfolk two-horse plough.

Besides the two-wheel gallows plough, Plenty's patent wheel plough, the improved turnwrist plough, a mole draining plough, a light two-wheel plough, the two-wheel double-furrow Warwickshire plough, Bourne's improved wheel plough, the light and heavy one-wheel plough, the Burriton foot plough, the light Suffolk swing plough with only one handle, and the double mould-board plough were all to be found on different Hampshire farms, and often several of them used for different purposes on the same farm.

The harrows were of the usual medley of designs and drags and nine or eleven share ploughs were used. Cook's Improved Scarifier with a cast-iron beam was general, and Leicester's cultivator as well. Rollers of wood and stone and iron were common.

The Rev. Mr. Cook's improved and Mr. Bourne's patent drill ploughs with their appropriate apparatus of scarifiers, hoes, rakes, and rollers were held in just estimation by many agricultural gentlemen who practised the drill husbandry exclusively, as well as by some intelligent broadcast farmers who used them occasionally for putting in their spring crops.

There was a complicated patent Hampshire waggon that could be divided in the middle, and so made into two wheel carts, but I doubt whether this was ever of any great practical use. The carts and tumbrils were much like those of other counties. Threshing mills had been erected of late years in many parts of the county, notably by Mr. Harris of Sutton, near Odiham, Messrs. Digweed of Stephanstone, Mr. Roberts of Abbotstone, near Alresford, Mr. Seward of Weston, near Petersfield, Sir Harry Tichbourne, Mr. Lavington of Twyford, Mr. Fitzherbert of Stubbington Lodge, Portsea Island, Mr. Wade of Pucknell, Admiral Cornwallis and several others.

The report demonstrated a certain liveliness amongst Hampshire farmers who were able so to control their own use of open field arable that they could grow green crops on the fallow, and who used a variety of implements for different purposes and who were willing to experiment with the new forage crops, in addition to using the sainfoin which had so long been established on the chalk downland. True the progress, or, at least, the adoption everywhere in the county of the then most advanced methods is not discernible, but nowhere was that so, and the variety of physical and soil conditions in Hampshire would have precluded it even if the farmers had been so foolish as to attempt it.

No particular breed of cattle was indigenous to the county, the Sussex, Suffolk, Hereford, Glamorgan and North and South Devon being used as draught animals, and finished for beef as was right and proper, and the Norman being used "for the bucket" or dairy.

Mr. Seward of Buriton, as well as other gentlemen in the east of the county, worked Sussex oxen and spayed heifers which subsisted on oat or barley straw in the winter, and were given what hay there was when the spring came on, and were allowed their fill of clover, tares or other green food in summer. Between three years old, when they began work, and six years, when fattened, these beasts improved in value from £15 to £23 each. Other people who worked ox-teams were Sir Henry Tichborne (Suffolk); Sir William Heathcote (various); Sir Thomas Miller,

Froyle, and Mr. Gudgeon, North Houghton (North Devons); Mr. Stares of Fareham; Mr. Smith of Brockenhurst; The Royal Farm called New Park, Brockenhurst; and they were also used in the Isle of Wight, so the business of buying in oxen, working them for three years or so, and then finishing them for the butcher was fairly general in the county. One cleric, the Rev. M. Halden of Thruxton, fed his horses, cows and fattening bullocks on cut barley straw and chaff mixed with the liquor and substance of steamed turnips prepared in Cook's patent steamer.

Although the Norman breed, which then included Channel Island cattle, or at least a cross upon it, was generally preferred for the dairy, there was no less a mixture of different breeds in the dairies than in the stalls of the county. The produce was made into butter and the average produce was estimated at five lb. a week for the first twenty weeks of a lactation and two and a half lb. for the last twenty, the total time the cows were allowed to be in milk. Particularly fine Norman or Guernsey cows were kept by Anthony Groves of Lyminster and Richard Jennings of Milford. Some calves were suckled for veal for the market, and the keep of a cow was estimated at from two to two and a half acres including the ordinary run of one sheep.

The small heath sheep, the old Hampshire and Wiltshire breeds, which had composed Hampshire flocks, had been improved by a dash of New Leicester blood when Vancouver reported, and the first cross then weighed about twenty-four lb. a quarter at twenty-eight months, shearing about five and a half or six lb. of wool, but many shepherds still believed that the old Wiltshire breed was best for the woodland districts. On the chalk hills and for folding on leys, the Southdowns were spreading into Hampshire, and in Sir Thomas Miller's flock these ewes only weighed sixteen lb. a quarter fat and sheared two and a half lb. each. A cross between the Southdown and New Leicester fattened to twenty lb. a quarter at thirty months and clipped four and a half lb. Evidently the shepherds of Hampshire were developing their flocks and improving them by judicious crossing. Besides Sir Thomas Miller's flock several other gentlemen kept Southdowns, amongst which were Branstons of Hall Place; P. Paulett of Somborne; Drummond of Grange Park; Bulpitt, Old Alresford; Lipscomb and Seward both of Weston; Sir Henry Tichborne and Mr. Goldfinch. The ewe was put to the ram in the middle of September, the lambs consequently being dropped in February and were "yeaned" a month later by the best men. Some Dorset ewes were kept in the south and Isle of Wight, and also crossed with the New Leicester, and Mr. Richards of North House had tried a cross between the then much bepraised Merino and Southdown; other Merino crosses were made by Colonel Cunningham of Malshanger House, Jenkinson

of Beech House, Christchurch, and Colonel Milford of Exbury House.

Vancouver did not think much of the farm horses which had far too much bone and were kept in poor condition. They were kept in the stable the year round and soiled on mown grass in the summer with about one bushel of corn each with wheat or barley, chaff, cut straw and hay "which also formed their short meat in the winter; but with a double allowance of corn"—a statement which is not too clear. "Their rack meat at this season" (winter) "is either of white or blue pea haulm, barley or oat straw, but at Candlemas they are most commonly racked up with hay."

Hampshire bacon and hams were always famous, and their particularly appetising nature was supposed to depend upon their pigs having access to the orchards where they fed on windfall apples, but this is probably a superstition. Not all of them could have grazed in orchards.

Vancouver condemns the native breed as a coarse, raw-boned, flat-sided animal and he attributes the quality of the produce partly to feeding on mast for a few weeks in the autumn, and partly but more particularly, to the excellent mode of curing practised by the housekeepers, which had contributed far more to the fame of Hampshire bacon than any inherent excellence in the breed. But Hampshire pigbreeders were as alive to their own advantage as other breeders and crosses with the Berkshire, the Suffolk and the Chinese breeds, the last of which was then in some repute, were improving the swine as crosses were improving the cattle and sheep.

Though Vancouver nowhere displays much enthusiasm for Hampshire livestock he leaves no doubt in the mind of his readers that at least some of the breeders were active and enterprising and that progress was going on—as in fact it nearly always is.

Then came the lean after-war years following the victory of Waterloo. Hampshire farmers did not escape the consequences of peace after twenty years of war any more than the rest of the country, and this depression went on for two decades.

In 1816 the collapse of prices hit Hampshire farmers hard. Bankruptcies, executions and imprisonments demonstrated the distress round Winchester, and the arable farms round Andover had given up calculating profits. They were concerned only about their ability to stand long enough to weather the storm. Round Petersfield the distress was severe and about Lymington and Milford the farms were understocked and insufficiently tilled for proper farming, a futile method of economy. Smuggling of foreign corn across the Channel was said to be another cause of injury by Adam Murray of Bishop's Waltham, while Wm. Mitford of Exbury reported that the farmers generally were unable to pay

their rents at the proper time, and declared that the tithe and the tax on farm horses were to blame. The Rev. J. Willis of Sopley thought that the repeal of the malt tax would raise the price of barley and help to assuage the distress. Many elements in the economic situation were blamed, rightly or wrongly, but one thing is clear. The Hampshire farmers, who had adopted the sound arable-sheep economy on which they had flourished, were hard hit²⁵ by the recurrent intermittent depressions throughout the 19th century.

William Cobbett, too, has much to say of Hampshire in 1821 and 1822. He found goodish farming prevailed all over the county, although there were some enclosures that had not been justified since the drop in prices. Round Burghclere the swedes were good in 1821 though the fields were not kept so clean as in Norfolk, and the corn-fed hogs of Uphusband (Hurstbourne Tarrant) kept up the fine reputation Hampshire bacon had always enjoyed. It was "the very best meat that England contains."

At East Woodhay a Mr. Sloper farmed his estate well, having a large tract of turnips in clean condition. He ploughed with oxen and had a large flock of fine sheep. His was an example of good farming. All the way from Odiham through the Candovers to Winchester was sheep country, and all over the rolling country the sainfoin remained good, as was all sorts of grass. No drainage was necessary on the clay with flints. Between Winchester and Wherwell some hundreds of acres of beautiful down, broken up in the dear corn times, was then "a district of this and other weeds." Round Botley, Cobbett's native heath, it was common to chalk at a cost of £16 an acre, and in the result the yield was often so high as forty bushels of wheat. Here the barley was fine and the sainfoin and turnips very good. It was a fine sheep country. Naturally Cobbett remarks the water meadows that now stretched all the way from Alresford to Winchester and Southampton, and south of Portsdown Hill, the part of the county that had been enclosed since the 16th century, between Bedhampton and Fareham he looked out over eight square miles of corn fields with scarcely a hedge or ditch. Wheat, barley and turnips were the crops here, no peas or beans and scarcely any roots. Between Fareham and Titchfield, on a common enclosed some years before, he saw good swedes and corn. Manure for these crops was obtained from Portsmouth. He saw some fine upstanding young wenchies hoeing roots on the Duke of Buckingham's estate at Avington. The hops were poor in 1822 all the way from Alton through Froyle, Crondall, and even at Farnham. From Andover to Stockbridge the wheat, rye, vetch and sainfoin was "beautiful" in that year and on to Romsey the turnips, both early and stubble, were looking well. In the

25. *The Agricultural State of the Kingdom, 1816.*

New Forest he visited New Park where some improvements were being tried, and saw hogs and pigs feeding in the beech woods at Beaulieu, though the New Forest in general was "a barren district."

Uphusband was a great thoroughfare for sheep and pigs from Wiltshire and Dorset to Berkshire and Oxford and away to the north and east of England, and Cobbett was very regretful of the vanished glories of Weyhill Fair where he estimated some £130,000 worth of sheep had been sold annually not so very long before.²⁶ Weyhill was not, of course, confined to sheep, although these animals played a major part in its business. It also played a great part in the domestic economy of the neighbourhood. For example the Rev. H. White, Rector of Fyfield, and brother of Gilbert White of Selborne, used to buy a stock of cheese at Andover Fair in May and replenish it at Weyhill. Most of the cheese sold at Weyhill came from Cheddar and Frome, Hampshire not being "much of a cheese county." Other stores were bought in the same way, amongst them being soap, candles, quilts and clothes.²⁷

Meanwhile the depression continued, and the farmers tried to combat it by good farming as they understood it. They were so far successful that the condition of the land reflected great credit upon them in 1828. Large quantities of chalk were used as manure, which, with the assistance of the sheep fold, was found to answer every purpose. Everywhere the ley was being kept down for two years, the first year mown and the second year grazed. Occasionally it was allowed to stand for longer, but generally the rotations were much along the lines of the then highly praised Northumbrian five-course system. On the heavy soil it was fallow; wheat; oats or barley; seeds for two years or longer; on the turnip land it was wheat from a two-years ley mucked; turnips or tares; barley or oats; seeds. The large area of tares was fed off by sheep, and was frequently followed by a turnip season or wheat. The Hampshire bacon and honey continued to merit the high praise they had so long received. The same plough as that used in Dorset was general, and in the south of the county a good deal of drainage had then lately been done, so in spite of the hard times some progress was being made.

The villages of East Meon and West Meon then divided the sheep country. To the west were the west country sheep rather larger and much coarser than the Southdown, while to the east of these villages the farmers were proud of their Southdowns as a better class of animal. Irrigation about these villages, too, had proved profitable. The district round Andover comes in for special praise as very well managed, though some of the downs in

26. William Cobbett, *Rural Rides*, ed. by Pitt Cobbett, 1893, *passim*, cf. Loudon. *Encyclopaedia of Agric.*, 1825, art. Hampshire.

27. R. M. Heanley, *The History of Weyhill and its Ancient Fair*, 1922, pp. 35-37.

the north of the county could not have been cultivated at all without sheep.²⁸

In 1836 Mr. John Twynam was farming 600 acres of his own land and 200 acres that he rented near Whitchurch in Hampshire. His land was what was called in the county a good farm; not capable of growing what many farmers would, but a good stock farm. He worked it in general on the five-course system, leaving the seeds down two years before breaking up for wheat. And because he was well situated for manure he was able to work some parts of it on the four-course system. Much the same system was adopted by Hampshire farmers all over the chalk lands, but the five-course system was more widespread than the four.

Twynam was of the opinion that a good deal of improvement had taken place in the farming of the county during the previous five or six years and that it was being continued "where there are any means left." The land was being stocked heavier with sheep, which showed that more attention was being paid to green crops and in turn meant that the land was being more heavily manured by the fold. The result was a greater production of corn. For himself he was not growing any more wheat, but had increased the area under the other cereals, and he thought other farmers had been doing the same.

In spite of the efforts, and perhaps partly because of them, a good many of the farmers in the county were having a bad time, particularly those on the clay soils peculiarly adapted for wheat growing. Twynam told the Select Committee on the State of Agriculture, to whom he gave evidence on the 25th February, 1836, there was world over-production at that time, or, rather increased exports combined with increased home production had knocked the bottom out of the market. He pointed out that in the five years 1822-26 inclusive, 12,219,909 quarters of grain were imported, and that in the five years 1826-31, 24,217,455 quarters had come in, and he thought two-thirds of the nearly twelve million quarters increase was wheat. If these figures are reliable, and the home production was also going up, it is evident that the population did not increase and could hardly have increased sufficiently rapidly in the decade to consume the extra supplies. Twynam estimated that in 1836 the supply overtopped the demand by two-fifths, although he had no figures later than 1831, and if this is anywhere near the truth the fall in price is not difficult to explain.

And an alternative foodstuff to wheat had also been widely extended in Twynam's own locality. The potato was coming into its own. There were about 1,500 inhabitants in his parish and sixteen or seventeen years before only about three acres of potatoes had been grown, the yield being about 300 sacks; in 1836 and for

²⁸. L. Kennedy and T. B. Grainger, *The Present State of the Tenancy of Land in Great Britain*, 1828.

the three or four previous years about twenty acres had been cultivated yielding about 2,000 sacks. Most of these were consumed in the village, but the Committee was assured that a great quantity of them were made up into bread mixed with wheat flour, as Twynam believed was almost invariably the custom in all the bakers' shops except in those years when the crop was so good that it was not worth while. Since the allotment system had been introduced, the labourers did not eat so much bread, and, although this was good for the men, it was a cause of reduced demand.

Importation of wheat, except from Ireland and the Channel Islands, had ceased in 1831, but that probably a million quarters had come in annually from these sources is suggested. This, coupled with three good harvests and the unsold quantities in the bonded warehouses, kept the farmers' price low. Consequently the previous year's crop of wheat was still largely in the farmer's hand in February 1836. Twynam thought that the stock of wheat in hand was rather greater than he had known it for several years past. So far as possible the farmers were threshing other crops and holding their wheat for a rise. And the goodish price for barley did not entirely compensate for the poor price wheat was fetching because the barley crop had been nothing exceptional in the county.

It is a little difficult to get any general idea from what Twynam said. He points out that prices were low and proves that the competition of overseas supplies was already having an adverse effect on the position of the English farmer. He emphasises the fact that a moderately good price for one or two commodities was no real compensation for poor prices for others. He shows that the position bore heavily both on farmers and labourers but he fails to suggest any remedy. The fact is, however, that things were slowly improving in Hampshire as elsewhere in the mixed farming counties, and the efforts of the farmers were having some effect.

In 1840 Henry Gawlor, the owner-occupier of 230 acres in North Hampshire, described his own farming and that of his district.²⁹ On the best gravel—the soils are very mixed—the four-course system was usual with an occasional fallow after a wet season. Swedes could be drilled, but not turnips. Sainfoin was grown and left down for five or six years—too long. Potatoes were grown for domestic use.

Norman or Alderney cattle were esteemed the best, but the milk from one Devon and three Alderney cows was mixed to make a very rich butter. On the local small dairies this was very profitable. The sheep were called Southdowns, but were in fact a very mixed race. The fold management was indifferent. The Wiltshire sheep had more bone and longer legs, and were formerly

29. Reports of Select Farms, *British Husbandry*, III, pp. 1 ff.

kept by farmers on the Downs which had since been broken up. The pigs were managed with slovenly inattention. No horse was bred, there were no considerable dairies and very few cattle were fattened. Manure was that of the farmyard and sheepfold.

A plough of iron, except the beam and handles, and smaller than that used thirty years before, was drawn by three horses, but the old four-horse type was still used by many farmers. Some threshing was done by horse-driven machines, but the almost destitute labourers objected, and had restricted the number installed, and the use of those erected.

Rham was full of criticism of the county in 1850. The work was done too expensively, by too much labour and too many horses. There were too few threshing machines, the stock were not fed cheaply and the manure not consumed, all the liquid manure being wasted. Caird added that the buildings were unsatisfactory and not wisely planned.

Changes in the national economy had worked to the disadvantage of the county. There had been a good deal of reclamation on Bagshot Heath in the past thirty years where Rham thought the poor soil set ingenuity to work to produce the most improved practice, but the large quantity of stable manure available from posting stations, stage coaches and carriers had been reduced by 1850 because railways were being built and this change had spoiled the farmers' market for hay. In the south and north of the county there had been some general improvement, but not all that was necessary. On the heavy lands a bare fallow was essential and the new artificials were being used less than was desirable. Again Caird reports that the water meadows along the Itchen and the Test were not paying so well, because the new concentrates had made it possible to produce fat lamb almost everywhere, and so the water meadows with their rich grass had lost their advantages. The farmers here were going over to the dairy or combined dairy and feeding, but still kept some flocks.

George Harriett of North Waltham, Basingstoke, told the Select Committee on Agricultural Customs of 1848 that chalking was very advantageous on the clays and sticky gravel, but gives no indication of how much was done. The whole district round Reading and Basingstoke needed draining and the Duke of Wellington and Mr. Chute were doing it. The Duke indeed spent large sums on draining, marling and farm offices to very little profit.³⁰ Harriett was an improver. He had changed from the four-course system to a seven-course in 1841. He used guano, bones and salt and drilled his turnips with artificials. He made the hills good land by hoeing turnips, and feeding them off with sheep supplied with concentrates.

30. Laverne, *The Rural Economy of England*, 1855.

Some play was made with the increase of market gardens in their neighbourhood for the supply of Portsmouth, Gosport and Southampton, but Caird says quite unequivocally that these ports were almost wholly supplied from France with that kind of produce, although potatoes had increased of late years. Hampshire bacon was renowned because of care in curing rather than in selection of stock. The new Basingstoke works supplied modern implements not only to Hampshire, but to Berkshire and Surrey as well.

Nothing had changed by 1861. The north of the county was still in small backward farms, with low yields of cereals and poor cattle. The old high two-wheeled Berkshire plough was still in use. On the downland the Hampshire Down sheep was the great achievement of farming, about 300,000 being sold annually at Weyhill and the other fairs. The southern part of the county was beginning to concentrate on the dairy for the growing markets of the ports and naval establishments. Near Southampton there were fine meadows and fine Shorthorns kept to produce milk. Butter was also made and there was a cheese market at Bishopstoke Station where up to 300 tons were sold yearly.³¹

Two sets of steam cultivation tackle were inspected in the county in 1866, one at Micheldever and the other at Alresford, and probably this number was higher in 1880.

One John Blundell of Southampton anticipated a modern process by beginning with the early fattening of beef in 1857 and read a paper to the Royal Agricultural Society in 1862. He fed large quantities of concentrates, green fodder and roots and finished the beasts at eighteen to twenty months, and must have found a good market for such an unusually delicate product.³²

The New Forest, an area that has always attracted the eyes of improvers even unto the present day, engaged the pen of W. C. Spooner in a lengthy essay on its agricultural possibilities in 1871,³³ but his ideas were not destined to work out quite so successfully as he anticipated. Two years later the Marquess of Bath was complaining that many of the downland farms of the Hampshire and Wiltshire border were falling into hand, although another landowner, Mr. H. Burd, could not understand the complaint, because he always had twenty offers if one of his farms of that kind fell vacant.³⁴

By 1873³⁵ some improvements had been introduced to the north of the county, although the hedges were still enormous. Drainage had made the cultivation of vetches possible on the fallow break and swedes and mangolds were grown on the lighter soils.

31. Rev. John Wilkinson, *Hampshire*, Jour. R.A.S.E., 1861, cf. J. C. Morton, *Cyclopaedia of Agriculture*, 1855, art. Rotation.

32. Henry Evershed, *Early Fattening of Cattle*, Jour. R.A.S.E., 1878.

33. Jour. R.A.S.E., 1871.

34. Cf. Kennington, *The Commoner's New Forest*, 1942.

35. Select Committee of House of Lords on the Improvement of Land, 1873. Evidence of H. Burd.

Clover was grown once in eight years. In the south the tendencies remarked developed and on the downs the arable-sheep system went on, the Hampshire flocks dropped from 612,000 in 1874 to 512,000 in 1880, over 16 per cent. The sheep management here was probably unsurpassed in England, a constant succession of green crops being required to feed them.³⁶

Changes had been taking place in Hampshire, but in what measure it is impossible to say. The establishment of an implement factory is one indication of economic development. The magnificent sheep husbandry and the production of milk in the south for the neighbouring markets are others.

In the next thirteen years sheep declined still further to 380,000, while cattle rose from 67,000 to 81,000. As elsewhere, too, the arable crops declined, wheat by 30,000 acres, barley by nearly 20,000 acres, oats rising by some 10,000 acres. Clover dropped from 114,000 acres to 105,000 acres and permanent pasture rose from 188,000 acres to 261,000 acres. Such was the measure of change here consequent on the new world economy.

The depression in 1893 was reputed worse than in 1879—drought was worse than wet on such soils and the yields of cereals and straw were terribly low, and a great deal of land was falling out of cultivation altogether, only being used at times as sheep runs, especially between Whitchurch and Basingstoke, south-east of Micheldever and north of Cobbett's Hurstbourne Tarrant. More land had tumbled down than had been laid down, and some attempts to make permanent pasture had failed. "The old pride which in bygone days farmers took in preparing their land for wheat in this typical wheat growing area has disappeared" reported the Assistant Commissioner, Dr. W. Fream, in melancholy vein. The district was badly understocked with sheep. On the other hand cattle had increased, but not equally throughout the district. They were mainly milch cows kept for the sake of the regular cash return secured by the sale of milk; but Dr. Fream feared that the sale of milk without any regular return to the soil would impoverish the land. Nor did he like the water meadows where some years' experience had led him to believe that hay making was a very chancy business. Three farmers were making stack silage with success, but this must be fed out on the grass just after milking or it tainted the milk. The milk was sent to London, Portsmouth and Southampton. Oddly the district consumed imported butter from Denmark, Normandy, Australia and New Zealand.³⁷

Neither Rider Haggard nor Sir Daniel Hall reported upon Hampshire when they made their later tours, but the tendencies already apparent hardened as the years passed and were the accepted practice up to 1914.

36. J. A. Clarke's *Practical Agriculture*, Jour. R.A.S.E., 1878.

37. Royal Commission on Agric. Report of D. Fream (C. 7365), 1894.