

DERBYSHIRE ARCHAEOLOGICAL AND NATURAL HISTORY SOCIETY.

FOUR CENTURIES OF FARMING SYSTEMS IN DERBYSHIRE : 1500-1900.

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DERBYSHIRE must have been thinly populated in the middle of the 16th century. In the High Peak a few scattered hamlets of lead miners, a few shepherds and a few scanty flocks and herds, and for the rest emptiness and desolation. The flatter ground in the south and east of the county saw some cultivation, some of it carried out on open arable fields like those of the rest of eastern and southern England.

A flood of light is thrown upon the scantiness of the population by a fiery protest against an order to levy 1,500 foot soldiers made in 1558; the condition of the county would not allow it to raise more than 100 men besides those subject to the Earl of Shrewsbury. On previous occasions only 600 had been levied and at the best it had never been possible to raise more than 900. Since all men between 16 and 60 were subject to be mustered the total inhabitants of this fairly large county must have been very few.¹

In their protest the Justices speak of "this poor little county" and indeed with the exception of great men the Derbyshire people were not rich. Unfortunately only one of the several inventories of goods that have been

¹ Edmund Lodge, *Illustrations of British History . . . from the MSS. of . . . Howard and Cecil* (1791), Vol. I, p. 296.

preserved is so early as this, (there may be and probably are others I have not seen), and that one is of the goods and chattels of a rich man. When he died he had growing crops of "ots", corne (presumably wheat), "barlie and ots", rye, and again "ots". This man had a strong equipment of arms in his armoury and may have been a keeper of the retainers forbidden by Henry VII. Little wheat was grown in the county at this time, and maybe the "corne" was for domestic luxury. The crops in the county were so small that supplies often had to be imported from Hull.²

The writer of our earliest farming textbook was a member of the Derbyshire family Fitzherbert. It was the *Boke of Husbandrye*, 1523, but though the writer was a Derbyshire man he makes but slight explicit references to farming in the county; but possibly his advice may be taken as of general application — to Derbyshire no less than other places.

His first direct reference to the county deals with manuring. Muck should be carried out towards the end of April or the beginning of May for barley ground. The principle was to muck the land every second year, and Fitzherbert thought it should be put on after the first fallow ploughing, this being better than to spread it and plough it in, because "if it be layde upon the sturrynge, at every plowyng, it shall cause the corne moche better to growe and encrease. And in some places they lode not theyr donge, tyll harvest be done, and that is used in the farther syde of Derbyshire, called Scarsdale, Halomshyre, and so northward towards Yorke and Rippon."³

The bread eaten in Fitzherbert's time was often made of rye or of rye and wheat mixed, occasionally of barley and even of a mixture of peas and bean flour if only as a dilutant, and I think a good deal of oats must have been eaten in Derby. Pure wheaten bread was something of a luxury, often called manchet, reserved for the wealthy and for high days and holidays. Sometimes the rye and wheat were grown together; sometimes they were grown

² J. Charles Cox, *Three Centuries of Derbyshire Annals*, II (1890), pp. 189-191.

³ *Certain ancient tracts reprinted* (1767), Husbandry, p. 19.

separately and mixed by the miller. This divergence of practice was local and was to some extent determined by soil, elevation and climate. Fitzherbert recommends that the two grains be grown together because the rye would probably succeed if the wheat failed and *vice versa*. Thus the mixture was a fairly safe crop for the chancy conditions of his native county. He also thought it best for the husbandman's household. From experience gained in the Eastern Counties about 50 years later Thomas Tusser disagrees with him. He thought the two grains should be grown separately and mixed when being milled.⁴ Doubtless both these writers described the common usage of the districts where they farmed and so emphasised that it was as local 400 years ago as it is to-day.

Naturally enough Fitzherbert thought that sheep were the most profitable livestock a man could have. The sheep should be folded on the rye ground in May if there was any, and the fold moved every morning or night, and in the morning the sheep should be kept standing still until they had voided so as to manure the ground. Great care too must be taken to see they had no "mathes" or were scabbed, but if a man had a several or enclosed fallow field of his own he should not fold his sheep on the common fallow because there he would run great risk of disease. More in his own field they could shelter under the hedge in bad weather which they could not do if folded.

The man who had good winter pasture and an early bite in the spring could afford to let the rams run with the ewes all the year. I think this means enclosed pastures. "For the common pasture, it is tyme to put his rammes at the exaltation of the holy cross; . . . But for the common husbnde, that hath no pasture but the common fields, it is tyme ynoughe at the feste of saint Mychaell the Archangel. And for the poore husbnde of the peeke, or such other, that dwell in hylly and hyghe groundes, that have no pastures nor common fields, but all onely the common hethe, Symon and Jude day is

⁴ *Five Hundred Points of Good Husbandrey* (1580), ed. by Wiillam Mavor, 1812, p. 17.

good tyme for theym and this is the reason why. An ewe goeth with lambe XX wekes, and shall peane her lambe in the XXI weke, and if she have not convenient newe grasse to eate, she maye not gyve her lambe milke; and for wante of milke, there be many lambes perished and loste; and also for pouertye, the dammes wyll lacke mylke, and forsake theyr lambes, and soo often tymes they dye bothe in suche harde countreys." With one contemporary practice in the Peak Fitzherbert did not agree. It was milking the ewes after weaning the lambs at twelve weeks so that cheese could be made either wholly of ewes milk or of a mixture of sheep and cows' milk. Lambs weaned so soon were never so strong as those allowed to follow the dictates of nature. His protest went unheeded because this was done until quite recently in some parts of the country.

The cattle of the day were bred in a casual manner on the wastes of the manor. Everybody's beasts grazed together and there could be no separation of the animals to allow of breeding for specific purposes. The problem of winter keep also was almost insoluble before there was any knowledge of root crops or artificial grasses; so large numbers of animals were slaughtered in the autumn and early winter and salted down or smoke cured on the rafters. Only the strongest beasts, most likely to survive on scanty winter rations, the portion equally of animal and owner, were kept. While, therefore, different districts had their own local types of cow there was not and could not be anything in the way of specialised breeding.

Horse breeding was different. Henry VIII wanted horses fit to carry cavalry if he should go to war, the proper ambition of all upstanding young Princes, so he passed an Act ordering that stallions turned out on the common waste to graze with mares must be fifteen hands at least, and there was an additional rule that no stallion over two years old or under $14\frac{1}{2}$ hands high should be permitted to run on any forest, moor or common where there were mares. Whether this order was ever observed or not is a question now impossible to answer, but our forefathers were impatient of regulations though they might reap some advantage from them, and so it is not

likely to have been nationally obeyed. The tricks of horse-copers were very numerous, and if all the horses had been well bred their tricks could not have been employed. They would have been unnecessary, but Fitzherbert anxiously warns his readers against them.

In one respect he prefers oxen to horses for providing farm traction, and his argument was the mainstay of the protagonists of oxen during the centuries' long controversy on the subject. The ox made good food when it was too old to work and was fattened off; the horse was fit only for the knacker. In general three fallow ploughings were given as a preparation for a cereal crop, the land being manured as best may be, the seed was sown at much the same rates as it still is, and harrowed in probably with a bush harrow. The roller was seldom employed although the areas sown were usually so small that it was possible to do a great deal of weeding with a weed-hook to keep the growing crops clean. Yields were ludicrously small by modern standards, not usually more than 50% of the national average of to-day. Curiously enough Fitzherbert had a good word for the wheat grown in the Peak. "Peeke Wheate", he wrote, "hath a red ear, ful of anis, thyn set, and oft times it is flyntered, that is to say, small corne, wrynkkled and dryed, and wyll not make whyte breade, but it wyl growe upon colde grounde."⁵

There is some dispute about the authorship of the *Boke of Husbandrye*, some maintaining that it was written by John Fitzherbert 12th Lord of the Manor of Norbury and others that it was by his younger brother Sir Anthony, the Judge, who succeeded to the estate on the death of John in 1531; but that dispute need not detain us here.^{5a} An inventory was made of John's goods when he died and this inventory supplies details of the farm live and dead stock possessed by a substantial Derbyshire land-owner at that date. The heirlooms that he desired should be passed on to maintain the husbandry of the estate were

⁵ *op. cit.*, passim.

^{5a} Readers who are interested in the authorship of the *Boke of Husbandrye* are referred to R. C. H. Fitzherbert's article in the *English Historical Review* for April 1897, and to two short articles by Edgar Osborne in Vols. 16 (1947) and 17 (1948) of the *Derbyshire Countryside*.

apparently not quite all the possessions of the estate. They consisted of 2 of the best ploughs with culters and shares, with 16 of the best oxen for drawing them together with two yokes, "viii drawing yoke and ij cop yoke yroned". There were 2 horse harrows ironed, and of crops cultivated with these implements 12 qrs. wheat, 8 of rye, 12 barley, 8 oats, 12 malt and 20 qrs. peas of 8 strike to the quarter. The livestock was fairly extensive and included the best bull and 20 best kyne with as many calves as they were suckling at John's death and until 7 days thereafter; 4 steers and 2 heifers of 2 years old and a bull calf; 2 each of the elder boars and sows, and as many pigs as suck with two each boars and sows of the youngest sort; 200 best ewes at 6 score to the hundred and the lambs that were sucking, 8 rams and 4 ram hogs of the best; so it is clear that here there was a profitable farm with a large acreage of arable and extensive flocks and herds. The executors were ordered to buy anything that was lacking from this list to equip the new heir.⁶

Life was hard, harder than we can conceive to-day, less perhaps for the class Fitzherbert is clearly addressing, but still harder than anything we can imagine. His class was the literate class who could employ bailiffs who might be able to follow his precepts, but even harder for those whose place is defined by having "to rycke the defaults uppou a stycke". They were the yeomen and husbandmen who worked in the fields with their wives and children, and were little raised above the labourers they employed who, while single, ate with them and shared their lodging if it were only a pallet in an attic or a stable, and who sometimes continued to live in the farmhouse when married. The wives of such men shared the most arduous of the field work, often helping to drive the plough or spread the muck as well as looking after the dairy and the poultry, marketing the produce, except the corn crops and the cattle, wool and sheep and doing what housework was done in between whiles, as well as making and storing herb wines, conserves and so on.

But the cultivated area of Derbyshire must have been

⁶ Rev. J. Charles Cox, *Norbury Manor House and the troubles of the Fitzherberts D.A.J.*, VII (1885), p. 239.

a very small proportion of the whole in the 16th century and that mainly in the south and east. All over the west midlands the nature of the land by reason of hill or uncleared forests or long moors was unfavourable to settlement with arable as a central feature. A large part of these districts came into effective use late in their history from a wild or semi-wild state either by direct enclosure or under a system of cultivation free from the more complicating systems of common and in particular intercommoning over the arable. The hill land was advantageous to sheep and cattle husbandry, the animals not being carefully pastured but wandering with little supervision⁷ almost like those on the much larger wild spaces of the American prairies.

The east of the county had much in common with the neighbouring forest of Sherwood in Nottingham, and as this forest was gradually denuded of timber, cleared probably in the 16th century, there were enclosures here, but it is unlikely that they could have been made from common arable. It was direct reclamation of forest land. There may have been such common arable fields in the south, but all this county was enclosed and improved by the end of the 17th century.

The story of enclosure (or settlement if you will) has been told exhaustively by Mr. W. E. Tate who thinks that in the greater part of the county there was so much unreclaimed waste that no objection was raised to the enclosure of any reasonable area of it — an idea that confirms my opinion that much of the county was settled direct from the waste. There was a dispute about an enclosure at Chinley in 1569 but the land was meadow or pasture close, and, from what I can gather, the dispute, which threatened at one time to go to armed violence, was about making large profits out of sub-letting, and dividing a lease but the documents are incomplete,⁸ and when it came to the inquisition of the late 16th and early 17th centuries few new enclosures were reported and there was at least in one Petty Sessional Division a desire to extend and maintain tillage.

⁷ E. C. K. Gonner, *Common Land and Enclosure* (1912), p. 127.

⁸ See a note in *D.A.J.*, XXI. (1899), p. 61.

In spite of these reports enclosure must have been going on as indicated above. Derbyshire was one of the counties reported by Blith in 1652 formerly woodland (he may refer particularly to the east abutting on Nottingham) as enclosed and under cereal crops. It was probably in the 17th century that some of the drystone walls that are a feature of this and other northern counties were built, but these surrounded only a proportionately small area then, but it has been suggested that much of the north where these walls are most prevalent was even then held in several whether it was physically enclosed by wall or hedge or not. Certainly a good deal of "wild" remained to be enclosed by the 18th century Act of Parliament here, and there are to-day some 200,000^a of uncultivated land in the county.⁹

A survey of Duffield Frith was made in 1560 when it was in circuit about 30 miles. Twenty years later custom provided that the manorial tenants should have reasonable "hedge bote" every third year to hedge "those partes of their common corne fieldes that do abutt upon the said woodes or waste groundes". They had a right to crop browse from the trees in winter but were amerced for doing so, or, in other words, had to make what was probably a small payment. The tops were left lying for the cattle to browse on the leaves and bark, a common supplement to forage in the winter in those days of short winter feed, and all the tenants claimed a right of common for sheep and cattle on the commons. They said the soil was so barren that they would have starved if the common were taken from them.¹⁰ At Holmesfield in the 16th century all materials for necessary repairs could be gathered on the Lord's waste and it was customary to drive the commons once a year and impound all cattle found grazing there illegally. The tenants had to do one day's hedging in the Lord's wood and were paid with 2 gallons of good ale and 2d. of bread — a striking commentary on our ancestors' qualities as drinkers.¹¹

⁹ W. E. Tate, *Enclosures, Acts and Awards relating to Derby, D.A.J.*, LXV. (1944/45), and the authorities cited therein.

¹⁰ *Survey etc.*, *ibid*, XXV. (1903), p. 204.

¹¹ H. C. Fanshawe, *Court Rolls of Holmesfield*, *ibid*, XXX (1908), p. 180 ff.

It was for its grazing that Derby was famous. So early as 1607 John Norden in his *Surveyor's Dialogue* began the pæan of praise the Derbyshire cattle continued to receive as the writers of farming textbooks grew more numerous with the passage of time. Norden says that the meadows on the banks of the river Dove shared with Taunton Dean, the Severn and some few others, pride of place amongst the grazing grounds of England. Such pastures as these in his opinion needed no treatment, the effect of seasonable flooding was sufficient to keep them in high condition, or in his words "do feed them fat". Consequently he recommends that meadows lying on the banks of streams should be made into water meadows by making "some little dam or barre" to cause the water to flood them.

I wonder whether the cattle described by Markham a century after Fitzherbert wrote his book, were the product of these valuable water meadows. For him the best of English cattle were bred in Yorkshire, Derby, Lancs, Stafford, Lincoln, Gloucester and Somerset. Those bred in the first four counties were then, the early years of the 17th century, generally all black in colour, with exceedingly large white horns, with black tips. They were "of stately shape, bigge, round and well buckled in every member, short joynted, and most comely to the eye, so that they are esteemed excellent in the Market".¹² Markham thought colour and shape important and did not believe that a mixture of the red races like the Gloucesters and the black like the Derbyshire would answer, and therefore "would wish all men to make their breeds either simply from one and the same kind or else to mixe Yorke-shire with Staffordshire, with Lancashire, or Derbyshire with one of the black races" only.

His ideas about the points of these animals are that the bull must "be of a sharpe and quicke countenance, his hornes the larger the better, the neck fleshie, his belly long and large, his forehead broad and curled, his eyes black and large, his eares rough within, and haire like velvet, his muzell large and broad at the upper lips, but

¹² Gervase Markham, *Cheape and Good Husbandry* (1631), p. 88. Cf. Richard Blome, *The Gentleman's Recreation*, (1686), p. 256.

narrow and small at the neather, his nostrill crooked within, yet wide and open, his dewlap extending from his neather lip downe to his fore-boothes (i.e. breast and shoulders seen from the point) large, side, thin and hairy, ribs broad and wide, his back streight and flat, even to the setting of his taile, which would stand high, his huckle bones round and faire appearing, making his buttocks square, his thighs round, his legs, streight and short joynted; his knees round and big; his hoofs or clawes long and hollow; his tail long and bush-hair'd and his pizzell round and also well hair'd."

The cow, chosen from the same country as the bull, should be all of one colour, only the udder invariably white and with four teats only. Her belly should be round and large, her forehead broad and smooth and all her other parts like the bull. The ox should be exactly like the bull, the largest being the most use. The calves could be allowed to run with the cow all the year or weaned after the first sucking and brought up on the finger with skim milk just off the chill. The ox would labour well if fed on barley straw or peas straw, and "for blend fodder, which is Hay and Straw mix'd together, hee will desire no better feeding" and all the beasts should be bled twice a year.¹³

In another of Markham's books he speaks of the improvement of poor soils, and states the proper time of the year in which to do ploughing. This varies slightly in different parts of the country, but all he is able to say of Derbyshire and similar counties is that the plough should be set in the ground according to the season. It is easy to realise the difficulties confronting the arable farmer in Tudor and Stuart Derbyshire. With the roughly constructed implements of the time, and the often troublesome climate and contours of the land, there is little wonder that he was rarely able to produce a good sample of wheat, and that barley and oats were his main crops.

His ideas for reclamation of barren land were good. The heavy clay should be sanded, limed, ploughed,

¹³ *Ibid.*, pp. 89-91.

harrowed and clotted and a rotation of wheat; wheat; sheep fold (I suppose on stubble and weeds); barley, three years of oats; then peas and beans followed by three or four years grass. Sand, marled, chalked, limed, and manured would bring good wheat or rye for three years, barley for one year, then oats for three years, excellent Lupins the eighth year and good meadow or pasture for three or four years; so it is evident he had a prophetic vision of the modern ley husbandry or taking the plough round the farm. He recommended brining of cereal seed against smut and recommends "sprout corne, smytham and other excrements of the malt" as an excellent manure. The visual evidence of what has been done by these methods would comfort anyone who would ride into the barren parts of such counties as Devon, Cornwall, Middlesex or "Darbyshire" amongst others, and the visitor would find "where industry is used, a full satisfaction for all that is here written."¹⁴

These few remarks, which is all that it is possible to collect from the early textbooks, do not provide very definite information about the types of farming pursued in Derbyshire. That may possibly be gleaned from other documents that have not yet been fully explored, such as the inventories that may be attached to farmer's wills of the time.¹⁵ It is clear that in the 150 years from 1500 to 1650 a good deal of reclamation work had been done, though it often met with opposition from those who thought their interests were encroached upon, and more would have been done if the Civil Wars disturbances had not prevented it.

Common land, probably waste had been enclosed for use as several pasture at Belper, Duffield, Scropton, Alderwasley, Bowden, Spondon, Mellor, Parwich, Buxton, Fairfield, Tunstead, Bonsall, Priestcliff, and Wirksworth. The Ashford Court Rolls of 1608 describe the tenants making exchanges of their arable strips to consolidate their holdings, and at Parwich Thomas Leving and his neighbours had made many enclosures in the common fields, probably arable, by 1639 while in 1630

¹⁴ *Markham's Farewell to Husbandry*, 4th ed., (1638) *passim*.

¹⁵ See *D.A.J.*, XLV. (1923), p. 43.

the Justices of the Hundreds of Morleston and Litchurch ordered 27 persons who had planned to enclose 70^a in plots of 1^a to 7^a each to forbear, but whether they were obeyed or not is another matter; and it was possible to say that Wirksworth Wapentake had then long since been enclosed. In the High Peak there was a "general desire and daily endeavour to increase tillage", and enclosures of 5^a and under were considered not to be prejudicial to anyone.

This is readily understood when the distribution of the population is remembered. About 60% of the able men in the county were to be found in the semi-industrial mining districts of Wirksworth, the High Peak, and Scarsdale in 1630, while only 30% inhabited the three agricultural hundreds. The difficulty of providing grain locally was one result of this distribution, and indeed the county was then so ill provided with grain that in 1620 not enough to meet half the necessity was grown. Consequently supplies had to be imported from Holland through Hull.

The 17th century enclosures were usually carried out with the freeholder's consent, and large areas of the royal domain were so dealt with in Hulland, Belper and Chevin. Duffield Frith was surveyed in 1633 and enclosed, the King being allotted one-third and the other owners two-thirds, but this was unpopular and the fences were broken down. After the Restoration the arrangement was ratified in 1673. The Hundred of High Peak was to have been divided in Charles I's time, equally between His Majesty and the rest, and this was fixed in 1673 when Charles II granted 7,331^a in Bowden, Middlecale, Bowden Chapel, Fairfield, Shalcross, Mellor, etc., to Thomas Eyre. There were several riots about these arrangements in spite of a just division of the land.¹⁶

At the same time some yeomen were becoming well-to-do. For example Paul Fletcher, yeoman of Derbyshire, leased some lands for 21 years from Sir Arthur Ingram, and was able to buy them before the term had expired, naming himself "gent" then, and John Fletcher, his son,

¹⁶ *Victoria County History . . . Derby*, II (1907), pp. 172-180. Cf. J. Charles Cox, *Three centuries of Derbyshire Annals*, II (1890), pp. 189-191.

was able to pay no less than £2,100 for a manor and lands his father had leased from Sir Arthur. Was the Adam Eyre, member of a yeoman family then long settled in Derbyshire at this time, an ancestor of the Thomas Eyre to whom Charles II made so large a grant of Peak property, doubtless not without a substantial consideration.¹⁷

The geographers of the 17th century were just beginning to take a little interest in farming and trade as well as in the antiquities that preoccupied them, though a great many of them were quite willing to copy what their predecessors had written, as though it were still currently true — as indeed it may well have been in the main.

Camden in 1610 had only a few words to say about the husbandry of Derby. They were "The east side and the south parts are all well manured and not unfruitful. The west part is barren, but rich in lead yron and coles and also feedeth sheepe very commodiously and plenty of oats." Speed in the following year slightly elaborates this. "The aire is good and very healthfull, the soile is rich especially in the south and east parts, but in the north and west it is hilly with a black and mossy soile, both of them fast banded to the plougher's paines." This again was added to by Leigh in 1659 who says that the "best nappy ale" was brewed in Derby, and that the wealth of the town depended upon dealing in corne because most of the inhabitants were "badgers", who bought and sold to the people living in the barren mountains.¹⁸ More corn was being grown in the county by this date if Walter Blith can be believed. He says that many parts of the county that had been enclosed either then or earlier "were wont to be relieved by the fieldon with Corne of all sorts. And now (1652) are growne as gallant Corne Countries as be in England, as the Westerne parts of Warwickshire, and the Northerne parts of Worcestershire, Staffordshire, Shropshire, Derbyshire, Yorkshire, and all the countries thereabouts."¹⁹

¹⁷ Dorothy Campbell, *The English Yeoman* (1942), pp. 39, 53, 78.

¹⁸ Camden, *Britain*, (1610). Speed, *Theatre of the Empire of Great Britain* (1611). E. Leigh, *England Described* (1658).

¹⁹ *English Improver Improved* (1652).

By 1673 the south and east of the county was generally enclosed and improved, though how it was improved is not stated, yielding good corne and grass, and the north and west had some fertile valleys. The hills were excellent sheep pastures, but the grain grown there was mainly oats, of which the locally consumed bread was made, and which was sometimes malted and made into beer. The inhabitants then did a trade with Leicester, Northampton, Lincoln and Rutland by exporting coal and importing barley.²⁰ By 1704 it was estimated that the county had nearly 127,000 inhabitants. If this is correct and reliance can be placed on the earlier estimates in the Victoria County History, the population had increased from about 45,000 in 1635 to 68,000 in 1676 and so had trebled in less than a century but was still only of a density of one to five acres.²¹

The farmers were inclined, I fear, to rather sharp practice, and some of them had to be prosecuted in their manor courts. In 1664 some at Abney were presented for feeding sheep outside the manor in winter and pasturing them on the commons in summer, against the rules made, which only allowed each man to summer pasture as many sheep as he could over-winter at home. They were fined 3/4d. but the same offence occurred again about 20 years later.²²

Some indication of the farming of a man who was a fairly large landowner is given by an inventory made in 1676. He was Robert Marples of Barlborough and he had a largish house and a good deal of furniture. His farming stock and gear comprised three horses and three mares and the horses' gears and two saddles, one grey colt, one black filly and one bay colt; six oxen, five cows, one heifer, one bullock, one bull calf, and three other calves, two young calves and one bull, 25 sheep and ten swine. As he had only five cows it seems doubtful whether he produced cheese for the market, but he may have done, and his flock is about the size that would provide mutton for the household and wool for its clothing and draperies with perhaps little for sale.

²⁰ Richard Blome, *Britannia* (1673).

²¹ R. Morden, *Description of England*, (1704), p. 33.

²² C. E. B. Bowles, *The Manor of Abney, D.A.J.*, XXIX. (1907), pp. 138, 140.

The crops included wheat and barley, peas and oats with hay in the barn and stack; and there were five acres of barley earth and eleven acres of fallows. The husbandry gear included three ploughs and the irons, one ox-harrow and two horse harrows, two corn wains, two "corke" wains and one "corke" cart (what these were, if the word is correctly transcribed, defeats me) and one great sled for carrying a plough to the field. There were other smaller items it is unnecessary to set out in detail.²³

Marples evidently went in for mixed farming of a kind that was pretty widespread over the whole country. His husbandry goods do not differ greatly from those named in many other inventories of the goods owned by persons living in widely dispersed places.²⁴ There may have been some emphasis on livestock and dairying because that was characteristic of Derbyshire, and no quantities of crops in hand are given, though the five acres of barley ground and eleven acres of fallow suggest that the arable operations were not extensive.

Clearly improvements were making. For example, the Lords of Wingfield had two parks, the greater of which, according to a survey of 1685 contained 889^a, exclusive of nearly 100^a extending into Pentrich, and the lesser park, part of which extended into Okerthorpe, appears in the same survey to have contained 177^a. These parks were disparked, and turned into farms sometime between then and 1793.²⁵

All this gives some rather vague general idea of the distribution of types of farming in the county, but they do not provide any very definite idea of how the work was done. It is not indeed until 1700 that we get a hint of the methods used to reclaim the mosses and even then it is not absolutely certain that the information applies to Derbyshire, but I think it may equally well apply to the three counties of Lancashire, Cheshire and the Peak.

²³ S. O. Addy, *Inventory of Robert Marples, D.A.J.*, IX. (1897), p. 31 ff.

²⁴ See G. E. Fussell and V. G. B. Atwater, *Farmer's goods and chattels 1500-1800*, History n.s., XX. (1935), pp. 211-220.

²⁵ Thomas Blore, *A history of the manor and manor house of South Wingfield* (1793), p. 83.

“The Morases”, wrote Charles Leigh,²⁶ “are made Arable by Draining and Marling them, and bring them very good corn, they frequently pare off the Tops of these with Push-plows, which they amass together in small heaps, when they are dry they set them on Fire and by their alcalious Ashes the Ground is made very Fertile, but will not continue above three Years, after that it is very barren.” The probability is that they took three white crops, and then let the land fall down to grass again.

The use of marl was certainly usual in Cheshire, and may have been in Derby. When it was well done it was counted equal to the purchase of the land. “The Marl”, said Leigh, “affords a Nitrus Salt and Oyl, which I take to be the Principles that make it so fertile.” White marl was, however, liable to be washed out by rain, and as much could be said of lime and “Putrify’d marine fishes”, by which he probably means calcareous sand and shells dug out of river beds, and known as “creach” in Norfolk.

It is probable that these improvements were made in the new enclosures or intakes of waste, fenced and used for arable for a few years, and after that cultivated on the system of convertible husbandry for ley for some years, and an occasional three years or so of cropping.

One of those determined men who will make a success of life at all costs lived in Ashover in the 17th century. His name was Leonard Wheatcroft, and he lived from 1627 to 1706. His first efforts failed, and so he applied to the manor court for permission to build a hut to live in on the common waste, but this was refused because he had not then sold all he possessed. Afterwards he did build a house in the waste, but not till 1676. He must have made some enclosures round it, for he planted orchards for himself — he did it for others presumably on their own land — he trimmed hedges, and he was a builder and tailor. His wife brewed and sold ale, and he became a teacher, and he was parish clerk and registrar. Truly a steadfast character.²⁷

²⁶ *The Natural History of Lancashire, Cheshire and the Peak of Derbyshire*, (1700), pp. 55, 65.

²⁷ *Autobiography, D.A.J.*, XXI (1899), p. 26 ff.

Plenty of cider is said to have been made in the county towards the end of the 17th century, which is a little curious as there was so extensive a trade in malt and ale. Apples were abundant, and sometimes sold for as low a price as 6d. a bushel or less, so the fresh fruit trade was subject to fluctuations even then. All sorts of grain were grown in the South, and oats in the North "of which is made oatmeal and oatcakes which is the bread they generally live upon". There were many gardens, especially at Derby, and plentiful supplies of vegetables "as cabbage, coleworts, asparagus, etc.". And a turnip, as big as a peck and right good to the heart, had been seen, as well as a cabbage of 30-lb. weight, but I doubt whether such colossi were at all general.²⁸

Enclosure by agreement continued, for in 1702 the freeholders of Eyam decided to enclose their pasture because it was not stinted. They appointed three surveyors to survey, separate and divide the land according to each man's freehold land in Eyam. The area was 153^a and a little over, and the surveyors were to set roads, and the way of making fences. The allotments made were of various sizes, but mainly about 6^a each.²⁹

There was still a great deal of uninhabited country in the Peak however, and Defoe was appalled at the dangers when he passed through the High Peak in the early years of the 18th century. From Quarndon, where he visited the wells, he went due north about five miles, and then had a most frightful view of the black mountains of the Peak, but however rugged the hills were, the vales were fruitful, well inhabited, the markets well supplied and the provisions extraordinarily good, not forgetting the ale, which became progressively better as they went northward. Wirksworth was a large well frequented market town for lead in particular. Matlock was just a village where the first bath had just been made. From Brassington to Buxton was twelve miles over a wild desolate moor, and at one place in it Defoe found a family living in a cave that had been the habitation of the family for several generations. Buxton also had baths but the

²⁸ John Houghton, *Collections on Husbandry and Trade* (1692).

²⁹ C. E. B. Bowles, *Agreement, D.A.J.*, XX. (1898).

people rather wondered at them than made use of them, though if proper buildings had been put up they could very well have competed with Bath.

He remarked the wonders of Chatsworth and Haddon Hall, but the mountains rising steadily into the Pennines were terrible, and the dangers from sudden floods on the rivers very great. Chesterfield was however a well built populous town, and the Hundred of Scarsdale towards Yorkshire a rich fruitful part of the country, although surrounded with barren moors and mountains.³⁰

Oats, as remarked, was the main cereal crop here, and William Ellis a farming writer of the day, who had a farm at Little Gaddesden, Herts, explains why. "On such lands as by reason of the cold, no other Grain will thrive", he wrote, "yet Oats will grow plentifully; as many Places in *Wales* and *Derbyshire* can witness. There is no ground too rich or too poor, too hot or too cold for them; they speed better than other Grain in a wet harvest, the Straw and Husks being of so dry a Nature, that although they are housed wet, yet will they not heat in the Mow, nor become mouldy, as other Grains usually do; but they are such a Pealer of the Ground",³¹ that they were not grown where other grains could be.

It is not until Arthur Young was inspired to begin his farming tours that there is any real record of the farming methods employed in Derbyshire. The spirit of improvement, as understood in the light land, eastern arable and sheep counties, was not then excessively active, but this may have been because the holdings were small or for some other reason.³²

So little was known about Derbyshire in the South of England when Young set out upon his *Eastern Tour* in 1770 that he was really astonished to find any good farming in the county. He had anticipated a desert of waste, especially in the Peak. He was agreeably surprised to find some excellent farming in enclosed land there as he had done elsewhere in the country.

The first farmer he met, of whom he wholly or even

³⁰ *Tour*, Everyman's ed. II (1724), pp. 156-180.

³¹ *The Practical Farmer* (1732), p. 33.

³² Ernlé, *English Farming Past and Present*, pp. 199, 200, 227, 294.

partly approved, was Mr. Kendal of the Peacock Inn near Alfreton. This man who farmed by bailiffs had introduced sainfoin nine or ten years before but his example had not been followed by any of his neighbours. Sainfoin was a crop that had commonly been grown on the chalk downs of Berkshire and Wiltshire for a century or more when Young wrote, and he thought it peculiarly suited to the limestone lands of Derbyshire. Kendal had a crop of 20^a usually. He sowed the sainfoin on a field of barley and clover at 6 pecks an acre. The clover lasted thick for one year, but was worn out by the third when a good growth of sainfoin replaced it. Three loads of hay were cut an acre each year and the aftermath eaten off. Young rather criticised this method, although he admitted that the crop lasted several years. He thought the sainfoin should have been sown broadcast at 4 bu. an acre when it would have yielded a crop the first year.

Kendal was also enterprising enough to grow potatoes. He began with 8^a in 1768, and had increased to 16^a by 1770. He did not eat them or sell them for human food. Potatoes were not then considered suitable by many people; he used them "for fattening brawns", boiled and mixed with barley or rye. He also grew cabbages between his bean rows for forage for cows. His whole farm was 420^a, of which 250^a were arable worked by 16 horses.

The ordinary rotation about Alfreton was fallow, wheat, oats or fallow, barley, clover for two years, wheat and these yielded 30 bu. wheat and 35 barley. Young says that turnips were hoed once or twice so some must have been grown. They were fed off with sheep, a few being drawn for the beasts. The clover was first fed off and then mown. Old grass was broken up by paring and burning, and lime was freely used. There were some covered drains. The stock were Longhorn and Shorthorn cows and yielded about 3 gals. a day. They were kept in yards in the winter on hay, turnips and a few brewer's grains. Pigs were fattened to 22 st. of 14 lb., and the flocks ranged between 60 and 140 sheep on farms between 50^a and 300^a. A swing plough hauled by three or four

horses at length, a stone roller and a harrow were the only implements in use. Such farms could be entered with a capital of £3 an acre.

A good deal of the old arable common fields round Derby had been enclosed and made into separate farms a few years before Young went there, but the farmers still used their old common field methods. Fallow, wheat, beans and peas "which is the old barbarous story that has travelled with us from Buckinghamshire", caustically remarks Arthur. This was indeed a subject on which he spent a steady stream of invective. Mr. Mundy, a local landowner, of whose tenants Young did not approve, was a cattle breeder of some repute, and had received so much as £25 for a single beast. The farmers round Derby redeemed themselves by three things. They bought dung at Derby for 2/6 or 3/- a load; they made a compost of lime and earth for pasture; and they used a spiky roller.

On Col. Pole's estate at Radbourn farms ranged from 20 to 150^a, most being 70 to 150^a. Few turnips were grown here, and those few never hoed. Sheep were never folded. Fallow, wheat, beans or fallow, barley, beans were the courses, though some clover was grown and left down two years. Yields were — wheat 23 b.; barley 5½ qrs.; oats 6 qrs.; beans 3½ qrs. Lime was used as freely as elsewhere in the county, but draining was little known. The cows were all Lancashire Longhorns and milked about 2 gallons. Col. Pole had some fine cattle, and grew 4^a cabbages to feed them. The profit of a cow was 3 cwt. cheese at 30/-, butter 10/-, calf 7/-. Few sheep were kept. Five horses were used at length in a plough, but a good many oxen were used both for ploughing and transport in different parts of the county. They were harnessed, not yoked, to the admiration of our observer.

A team of such oxen was used by Wenman Coke of Longford, who had tried hard to introduce the Norfolk husbandry into Derby, especially turnips with proper hoeing, without too great success. He made a compost of lime, marl and farmyard manure which he found effective on grassland.

The Earl of Scarsdale had recently built a "stately home" at Kedleston and "ornamented the county in a most noble manner". The building had a frontage of 360 ft. and contained many pictures listed by Young with the comments of an amateur.

From Derby to Matlock the country was enclosed and cultivated, and the waste land was eminently suited to growing sainfoin. The state of the land and the natural beauty of the scenery moved Young to quite unusual enthusiasm. His charges at Matlock Spa are worthy of record. They were 1/- for dinner and supper, and 8d. for breakfast, no charge being made for the room.

He passed on to Chatsworth, where the Duke of Devonshire had cleared woodland and plowed much land, to Tideswell and to Castleton. The whole district had then recently been reclaimed from black ling, and was growing good crops of wheat (30-36 b.), barley (24 b.), turnips (£4 p.a.) and presumably clover. The method of reclamation was the simplest possible. The landowner put up dry stone walls, and the tenant any that he needed to divide the land into serviceable fields. The land was then limed at 360 b. an acre. The lime burnt out the ling and stimulated the growth of white clover, which was used for sheep, young cattle or for dairy cows. Two acres of this pasture would summer feed a cow.

Another method was to pare and burn the ling, and sow turnips on one earth. This crop was never hoed, a bad omission. It was followed by a couple of crops of oats, and then clover and ray grass, although most of the farmers preferred to use hayseeds, which were at that time little more than sweepings from the haylofts. This was a system of cultivation that was very ancient in all similar parts of the country.

Young thought all the northern moors could be reclaimed in this way, and remarked that there was still a deal of work of this kind that remained to be done between Tideswell and Sheffield. Round the former some potatoes were grown and yielded 300-350 b. an acre. Four crops of oats often preceded a long ley here.

Round Chesterfield longer and more varied rotations were to be found. Fallow, wheat, oats, peas, turnips,

barley was one. Lime was usual, as in other parts of Derbyshire, and Longhorn cows were kept, giving 4-6 gallons a day, and fed on hay only when housed for the winter. The farmers here bought sheep off the commons at Michaelmas at 10/- and sold lamb and ewe fat next summer at 20/-, the couple feeding grass and hay in the winter. They also ploughed with brood mares, and usually had a colt or two for sale. They estimated £4 an acre as the necessary capital.

Derby was not without its distinguished farmers in 1770. Some of them used the improved Rotherham plough, some bred fine beasts and their traditional systems of farming were probably as well suited to their land, climate, and resources, as they were suited to the criticism of a writer like Arthur Young.³³

Young was, I feel, most interested in the new arable-sheep stall-fed cattle economy of the light lands of the Eastern Counties, and believed that it was more generally applicable. So far as that economy was engaged in livestock husbandry he was interested in the new methods and crops for feeding, and was terribly enthusiastic about such breeders as Bakewell of Dishley Grange, and Ellman of Glynde in Sussex, but I do not think he had a real appreciation of the different necessities of the breeding and grazing counties that were more remote from London.

The management of horses so essential as it was, does not figure very much in farming textbooks, but one Derbyshire farmer had what may have been original ideas for his time. He never kept his work horses confined to a stable after the day's work was done, either winter or summer. He had two fields of ten acres each near his home, and had built a stable so as to afford a ready entrance into each field. The horses were allowed to range freely in each, alternately, a year at a time, and he had always one of the fields either in wheat or barley under both of which he sowed a small sprinkling of clover, though he did not depend very much on the pickings the horses got from the clover. They were always fed in the stable; in summer on green fodder laid in a rack, either

³³ *Farmer's Tour through the East of England*, I. (1770), pp. 150-234. William Bray, *Sketch of a Tour*, 2nd ed. (1783), p. 200.

clover, sainfoin, or good meadow grass with a good allowance of corn, not only oats, but beans, peas, tares, barley, small wheat and sometimes rye; in winter on good sweet hay with corn that was fed unthreshed to save hay by their eating the haulm. The stalls were well littered so that the animals could take their ease in comfort at choice, and generally preferred lying in these stalls to the open air. This method, he claimed, kept his horses well and hearty.³⁴

The county reports prepared for the Board of Agriculture of that day do not indicate that very much change had taken place in Derbyshire arable farming by the end of the century. Thomas Brown, a defender of fallows which were indeed sometimes a necessity in heavy land then, said that a long rotation, a modification of two courses of the Norfolk 4-course, was in use, but that "these strong clays" were still worked on the open field 3-course rotation. In the Low Peak a 7-course followed by grass had been adopted, the convertible husbandry, but not so markedly as in the High Peak where a succession of crops of oats was taken before the land went back to grass. Camomile was grown near Chesterfield.³⁵

The second edition of this survey, written by John Farey, appeared in 1813, and the methods of cultivation described were much the same. The county was not famous for wheat and grew very little rye. Oats were the main cereal and more beans than peas were grown. Turnips were fed off the land by sheep and cabbages were also cultivated for them. Potatoes were grown for human food. High farming as it was then understood and practised by such men as Samuel Oldknow, included this crop in its rotation.³⁶ Practically no marling was done, but liming was general in the Peak, while bones were shipped from London and ground for manure locally. Town and yard manure was the standby. The plows, though various, were mainly wheeled; the usual harrows

³⁴ A Country Farmer, *A Letter . . . relative to the management of Horses*, Museum Rusticum et Commerciale (1766), Vol. I, p. 413 ff.

³⁵ *Gen. View Agric. Derby* (1794), pp. 15, 29.

³⁶ George Unwin, *Samuel Oldknow and the Arkwrights* (1924), pp. 204-214, esp. p. 205.

were used, but Farey saw one bush harrow. Rollers were either of wood or stone; there was not much drilling, less indeed in Farey's opinion than there should have been. He thought the spread of threshing machines worthy of remark and gave a list of 27 owners. Waggons were used in the South and carts in the hills.³⁷

Before the third volume of Farey's report was issued in 1817 the French Wars were over, and almost immediately prices fell so precipitately that the farming industry had no time to adjust itself to the new conditions that lasted two decades; but early in 1816 at any rate the grazing counties, Derby amongst them, were not feeling the effects so badly as the arable counties. No farms were unoccupied, little or no abatement of rent had been asked for or given, and the poor rate was either stationary or declining, except at Ashbourne, where it was said to be rising. Still some effects of the slump were to be observed in slow payments and less use of lime according to William Jessop of Butterley, while Dr. Coke of Alfreton reported that during the era of high prices land in that district had been overploughed with the result that the area of fallow was then excessive. Only John Beresford of Ashbourne complained of great distress, and the pressure of the poor rate there, and I am tempted to wonder whether he was repeating a general complaint parrot-wise or whether there really was distress here and not elsewhere in the county.³⁸

There was a great variety of cattle kept then. There were stock of the old Longhorn type, others of the Longhorn type developed by Bakewell, and Thomas Prinsep of Croxall was a famous breeder of these; there were Shorthorns and a few Devons, Herefords, Scots, and French or Alderney, and there were crosses between all of them. Formerly some Welsh had been kept, but these had been given up. Four people kept the White breed. Farey supplies most exhaustive lists of persons keeping the different breeds and carrying out crossing, but he does not provide too many details of the way they were kept. Grass was the summer, hay the winter food.

³⁷ *Gen. View Agric. Derby* (1813), Vol. II, pp. 43-59, 94-455.

³⁸ *The Agricultural State of the Kingdom in February, March and April 1816.*

A few farmers fed turnips or an occasional green crop of cole or rape, but he met only two who used oilcake. Some calves were fattened being either suckled or fed on whey. Cattle were finished on summer grass, and here and there a few turnips or brewer's grains.

Near Derby, Chesterfield and the other large towns cows were kept for liquid milk, which was carried in conical tubs on the backs of ponies or asses. Strutts of Belper, a manufacturing firm, contracted with certain men for an all the year round supply to encourage them to keep some cows in milk. Samuel Oldknow kept 14 cows to supply his work people. The county round Glossop was given up to milk and butter, little cheese being made, and the north of the county supplied Sheffield, the milk being sold to agents in the town who supplied the hawkers who acted as retailers. There was a good deal of controversy about the best breed of cows to keep for milk, and no very clear guide in their estimated produce. The cheese yield varied from 2 to 5 cwt. a cow a year, but individuals of the same breed differed widely. The cheese was, of course, made on the farms and sent to warehouses on the new "navigations" of river and canal where it was checked by a clerk, and bought by factors, many of whom lived in the county and were themselves dairymen. They bought on commission for the London dealers. Oxen and heifers were not worked so often as they had been in ancient times, but recently some Hereford and Devon enthusiasts had been working imported animals of these breeds.

The sheep kept varied in different parts of the county. The so-called Woodland sheep was the only remaining original breed. It was kept on the moors of Yorkshire and Cheshire that were called Woodlands although there were no trees or woods there, but this large tract of land had remained in its original and unimproved state, there being no walls or fences even between manors and counties, much less dividing holdings. The small horned sheep were kept in the valley enclosures at night and hunted off to the moors by the dogs in the morning, returning if anything untoward occurred, and being chased off again, being kept continuously on the move.

Each man's flock was identified by his mark, carefully recorded in a book. The lambs were outwintered in the lower lands of Lancashire, Cheshire and Derby.

On the east of the county the number of Forest sheep, a small polled grey face, was less than before the enclosures were made, but the flocks were still very large here. A long list of breeders had taken up the New Leicester originated by Bakewell of Dishley, and a few had tried rather special breeds like the Southdown for crossing with the Ryland and Merino, and even some of the small Portland breed that were believed to be the original Dorset Horn. The feed was summer grass and winter hay, or common or swede turnips. Sheep walks or rights of pasture for sheep on the land of others were unknown in Derbyshire.

The county was famous for its horses, which were the large Black work-horse used for heavy hauling and for farm work. Most of the dairy farmers kept brood mares for doing part of their work, and there were many other breeders. Horses were summer grazed and fed on hay in winter, or clover or other artificial grass, and they got some oats. Turnips and carrots had been fed by one or two people, but these were more probably experiments than anything else.

In a dairy county it is to be expected that a large number of pigs should be kept, and this was so here. No particular breed was preferred. The pigs were fed on whey and other dairy waste. All sorts of poultry flourished.³⁹

A few years later a Scotsman estimated that the Derbyshire farmers were more intelligent than those farther south, but they were hampered in making improvements because the farms were so small. With leases and enlarged holdings there was nothing to prevent the county becoming one of the most improved districts in England. Formerly six horses had been used in a plough, but by 1825 it was usual to find two only. Turnips were grown on the Northumberland plan in places, the wheat was dibbled, but oats continued to be more generally grown

³⁹ Farey, *op. cit.* (1817), Vol. III. *passim*.

on the one-fifth of the county that was arable. Three-fifths were under grass, but appeared by the ridges everywhere to have been arable in some past time, but this is a snap judgment, and it is much more likely that these ridges were evidence that the waste had been broken up and used for cropping for a few years, then going back to grass on the system that was known as the convertible husbandry in the south-west, a system that led in time to the permanent enclosure of the areas broken up. The dairy industry, chiefly directed to cheese making, was the prevalent use of the grazing, but the grass was, in his opinion, greatly injured by the practice of spreading the muck on it with a rake which may have allowed the weed and coarse grass seeds to germinate.⁴⁰

In most respects Loudon is supported by the only other contemporary report that I know. Little drainage was done, and that little only in the south, which was still mostly cultivated on the wheat and bean system with a fallow. For a ley rotation the usual thing was oats; turnips or fallow; barley or wheat; but very little barley was grown at all; beans; wheat; and it is remarked that the principal crops were wheat and beans, except, of course, in the hills where the oat flourished.

Opinion was divided about cattle. Longhorns were kept by some; Shorthorns by others; a typically English compromise was a cross between the two. Horses were used in the 2-wheel plough, but in greater strength than Loudon suggests, at 3 or 4 at length. The seed drill was a rarity and so was the threshing machine, so in some things these two agree, in others they are slightly at variance, but that is perhaps natural because no two reports of the same set of circumstances are ever the same.⁴¹

Mr. William Smith of Swarkestone Lows near Derby had been a farmer for 42 years when he was called upon to give evidence before the Select Committee on Distress in Agriculture in 1833. He had first occupied land at Foremark Park and Milton in Derbyshire, and he had

⁴⁰ J. C. Loudon, *Encyclo. of Agric.* (1825), Art, Derbyshire.

⁴¹ L. Kennedy and T. B. Grainger, *The Present State of the Tenancy of the Land in Great Britain* (1828), Derby.

lived at Dishley in Leicestershire, the home of the great breeder Bakewell, but whether as a pupil or not does not emerge. His holding in 1833 was about 1,200 to 1,300^a, 800^a of good land, and about 200 or 300 of thin land, partly light and partly heavy.

In addition to his own farming Smith had been agent for from 14,000 to 16,000^a for some 29 years, only having given up this work in favour of his son, some eighteen months before. His land was partly arable and partly grazing, but I think the grazing must have been the larger part, because his evidence shows that he was more interested in cattle and sheep than in corn.

He had actually given up breeding cattle for some ten years because the beasts he had bought in the north did not breed well, but he continued to buy stores for fattening. He continued to breed sheep. Perhaps one reason why he had given up cattle breeding was the high price he had occasionally to pay for bulls. For instance he and the Hon. Robert Simpson had given 621 guineas for a bull at Robert Colling's sale. At the time he thought such prices could be made to pay, although they were due to a fashion for fancy-bred cattle. The breed of cattle for 20 miles round had been greatly improved by the fashion, but it had by then become distinctly uneconomic.

The grassland on his farm was about 600 to 800^a, and on this he fattened Shorthorns and Scots stores bought in September at the Lancashire fairs. He thought the profit of grazing was better in the past three or four years, although the price of lean stock was high in 1833. Supplies were short and but for Ireland and Scotland the graziers would not have been able to get all they wanted. Smith bought on a fairly large scale, from 200 to 300 beasts annually, and he certainly could not have got so many in his own locality. He usually found it profitable to go to Ormskirk fair and to buy beasts that had been one year in England — Scots, West Highlands and Gallo-ways. The beasts were not in such prime condition as he could recall, but that was because the breeders were sending them to market at an earlier age. He did not like the Irish cattle and only bought them when he could

not get Scotch. He thought the land was carrying about 25% less stock than in the good times of the war.

There is one bright spot in the gloom of his evidence. Cheese was improving in price and so was wool. The latter was of most interest to Smith, who had been in the habit of letting tups. This no longer paid, and he sold them every year. Even so the prices in 1833 were a good deal lower than in 1832. The highest prices he had ever received for letting was in 1818, 165 sheep not one under ten guineas. Four years before 1833 he gave up letting, but by then was only getting one-fourth of this sum. This was not because the stock was poorer. They had a larger frame and more wool, yet the selling price was lower as remarked.

So much for his own farming. He was obviously not making so much money as he had during the war, but a business of his kind and size could hold its own better than a smaller one. Conditions generally were worse than on his own particular enterprise. The gross output of the district was, Smith thought, greater than it had been owing to the plentiful use of lime and manure from the towns, but he was sure the farmers had been paying their rent out of their capital and that many of them were really insolvent. These men had been born on the spot, and were much attached to their landlords, and wished to go on so long as they could in the hope of better times. Many of the landlords helped them with beasts, etc., and rents had been reduced from 5% to 10%, not so much as in some other counties but still a reduction.

Smith himself had been in the habit of using large quantities of bones as manure on his arable, but had been forced to give it up on account of the cost. He formerly bought the bones by the boat-load from Birmingham, and estimated they cost £7 to £10 an acre. He thought they helped him to get a better crop, but they were not a paying proposition at the price current in 1833.

The truth was that the farmers were caught in a post-war slump that still continued 17 years after Waterloo, and they could not help themselves. Smith felt that there was not a more industrious set of men living than the Derbyshire tenants. He said they were "very desirous

of getting improvement, such as lime and dung and doing everything they could; there is a great desire to improve their farms but they have not the means."

Lime must have continued to be used because great quantities of it were dug in the immediate neighbourhood of Poole's cavern and the side of the hill was dotted with the dwellings of the quarrymen and limeburners, which were like the pit-dwellings of our remote ancestors, literally burrows or holes, scooped out of the limestone rock and looking like so many ant hills to the casual observer.⁴²

The small farmers of whom there was a preponderance did not possess the means to follow these good examples, even if they had wished to do so; they continued in "the routine of their forefathers" just as they did elsewhere.

Some really heavy yields of oats were got by heavy manuring. Mr. Furniss of Birchills got 72 b. per acre followed by 27 tons of swedes applying 15 tons of dung and 16 lbs. of bones. He proceeded with oats or barley and seeds for two years, after which he was able to take one crop of wheat. He kept 70 highly bred Shorthorns, 12 dairy cows and 20 calves and a flock of 110 Leicester ewes, the lambs being sold at one year old. The Hon. Cavendish of Ashford farmed on a 6-course rotation, and Bill Crompton of Duffield Hall had introduced Ayrshire cows. Thornton of Stanton, near Bakewell, got 2 to 4 cwt. of cheese per cow, much about the same as the Cheshire yield, from a herd of 16 up to 43 cows, the number varying according to sales and purchases. Both cattle and sheep were sold to low country farmers from Derby. Much of the pasture, however, needed draining, and drainage of the arable would have made it possible to grow turnips; potatoes were grown in rows moulded up with the plough, and on the best soils yielded up to 600 b. an acre. The best pastures, e.g., the Dove valley, were very rich and would fatten the heaviest oxen. There

⁴² Sir George Head, *A Home Tour through the manufacturing Districts in 1835* (1836), p. 102.

was a good deal of horse breeding, and carriage, saddle and farm horses were sold.⁴³

John Jephson Rowley of Mansfield supplies a more detailed account a couple of years later.⁴⁴ On the magnesium limestone in East Derby the farms were well cultivated on a 6 or 7-course rotation, dung, bones, guano, and rape dust being liberally used. The implements were most up-to-date from the steam engine to the harrow, and the farmers were most anxious for the success of the reaper. Many estates on the coal measures, greatly improved in the previous fifty years, had been thoroughly drained with the help of "Government" money.⁴⁵ Sheep were kept and early lambs browsed on Italian rye grass at Morton near Alfreton, which had been a cold neglected morass ten years before. Near Sheffield manures and brewer's grains were bought from the town, including such diverse things as horn shavings, bone dust, the use of which is believed to have originated here, the refuse from the comb makers, and other animal wastes. A century before, the millstone grits and shales had been an uncultivated waste of heath and peat bogs, but the Dukes of Rutland and Devonshire were rapidly draining their estates, and taking in the moor to make new farms on which the 4-course system was followed, good implements used and bones and guano put on for the root crop. Highland Stots and Galloways were bought at Brough Fair, summered on the hills and wintered in the lower grounds, making good beef at three or four years old. The mountain limestone was a sheep walk, and used for cattle grazing and the dairy cow, the cropping being simple, fallow or roots; oats or rape; seeds for 16 to 18 years, bones or guano being used on the turnips. Usually a flock of Leicester breeding ewes was kept, and calves were reared, and this was the system from Buxton to Cromford. In the fortunate valley of the Dove,

⁴³ Leonce de Lavergne, *Rural Economy of England* 1855. James Caird, *English farming in 1805-1851*. (1852), W. L. Rham, *Dictionary of the Farm*. (1850), Derby.

⁴⁴ *On the farming of Derbyshire*, *Jour. R.A.S.E.*, (1852). Cf. Rowley's evidence to Select Committee on Agricultural Customs 1848.

⁴⁵ Cf. Evidence of Edward Woollett Wilmot of Etwall to Select Committee on Agricultural Customs 1848.

cheese, beef and mutton were produced, and here no lime was necessary, as it was elsewhere.

In the county factory cheese making was first introduced by co-operation between the landowners and the farmers. After a report on the American system had been obtained and published in 1870 and 1871, the Midland Agricultural Society advocated its establishment in Derby, expecting to secure greater uniformity in the product, ease of labour, and, of course, a certain price to the farmer. £5,000 was subscribed to guarantee a price of 6½d. a gallon for milk, to be paid monthly, and the whey to be sold at the best possible price. A factory was provided by the Hon. E. K. W. Coke of Longford, and an American, Cornelius Scharnerhorn, imported to advise. This plant was intended to deal with the milk of 400 cows and another factory was established in Derby town to deal with that of 300 in 1870. Cheese was made at Longford and butter at Derby; to the former 27 producers supplied 170,867 gallons, and to the latter 17 supplied 130,837 gallons of liquid milk, but these enterprises had a chequered career.⁴⁶

The system of very long leys, which had been a part of Derbyshire farming for centuries, was considered by Evans and Bowstead almost the same as laying down land to grass, and, indeed, John Archer of Youlgrave told them that he had made a practice of laying down because he did this. He thought his farm would have paid better if it had all been in grass. Thomas Swann of Hargate Wall, Buxton, and Benjamin Buxton of Aldwark, Wirksworth, had both followed the same system.⁴⁷ All these had fairly large occupations, but a great many other Derbyshire farmers had been following the same system long enough. It was to go through a rotation in which roots were heavily fertilised and finish up with seeds under a corn crop, although Archer and Buxton preferred rape as a nurse crop.

Opinion about the farming of this county was divided

⁴⁶ Gilbert Murray, *Factory system of cheese making in Derbyshire*, *Jour. R.A.S.E.* (1871).

⁴⁷ *Report on laying down*, *Jour. R.A.S.E.* (1875).

in 1880 although it was agreed that pig-keeping had declined because of the increased sale of liquid milk, some of which went to London, some to Newcastle-on-Tyne, and some to the Yorkshire towns. The Midland railway is said to have carried one million gallons over its whole system in 1872, and anticipated $5\frac{1}{2}$ million in 1881 — not all Derbyshire produce, of course. The cattle in the county were nearly all Shorthorns, varying from beautiful herds to a few very nondescript milking animals on the smaller farms. Though there were few pedigree bulls, the herds had been improved by the use of pure-bred Shorthorn bulls during the previous 15 years. The position of the dairy farmers had improved in the same time because the cheese factors had been little better than moneylenders who kept the producers in thrall, and the cash payment for liquid milk had released them. Though the Longford factory had suffered from American competition from 1879 the sale of their milk to the factory had benefitted the dairy farmers similarly. The north of the county had not felt the depression so much as the south, but they lived and worked hard, gaining a livelihood little if any better than the labourer. All over the county, however, the milk trade had saved the agricultural community, and, as in other grazing counties, though the number of livestock had fallen, the farmers were not in such desperate case as in the corn and sheep counties. The cereal area was declining, but good barley found a market in the Burton breweries and these returned "grains" for feeding. Peas and beans were also going out of fashion, and potatoes were being more extensively grown. Cake feeding on the pastures was considered a cheap and easy improvement, but hayloft sweepings were still occasionally spread on the grassland to improve it — a doubtful benefit. Much of the draining done with tiles and with the "Government" money had been done too deep and only too locally to dry out very restricted areas.⁴⁸

The indication of a general rise in the standards of Derbyshire farming during the four decades of so-called

⁴⁸ *Report on prize farms, Jour. R.A.S.E.* (1881). Richmond Commission, *Report and Evidence by S. L. B. Druce* (1881); *Evidence of John Coleman* (1880), and *Hon. Edward Coke*, (1881).

“High Farming” are just as nebulous as elsewhere. The cattle were better in the sense of yielding more meat and more milk, some of the new fertilizers, feeding stuffs and implements were used in the county, and a good deal of field drainage had been done, but that is all that can be said. For the rest it went on farming largely in its accustomed way in spite of the depression.

There had been a gradual revolution going on for some years — the revolution that the railways made possible in all the dairy counties, the sale of liquid milk in place of making butter and cheese. The gallonage carried on the Midland Railway was still increasing; the $5\frac{1}{2}$ million gallons carried in 1881 had risen to nearly 8,400,000 gallons in 1888.

The number of cattle kept rose from nearly 133,500 in 1881 to not quite 145,000 in 1887, and doubtless a large proportion of their increase was milch kine. Curiously enough sheep, which everybody had agreed played little part in the farm economy of the county, rose from 170,000 in 1882 to 199,000 in 1887. Pigs had declined probably as a consequence of the sale of liquid milk, which left no waste products to feed them on; but the county had kept its interest in horse breeding, the numbers remaining about static but the quality improving. They were a profitable line, and some of the best Shire horses were reared in the county, which played an important part in the Shire Horse Society. Poultry rearing too had increased steadily during the 1880's, not only fowls, but ducks and turkeys being fairly generally kept.

In the farm prize competition of 1888 Thomas White Bower of Woodthorpe Farm, Staveley, was commended in Class 2, and Arthur Milner, senr., of Strithfield Farm, Alfreton, in Class 3. There was nothing very different in their farming from what it might have been for a very long time except the use of cake for feeding and bones for manure.

Woodthorpe Farm comprised $127\frac{1}{2}^a$ of arable and $60\frac{1}{2}^a$ pasture with gardens and orchards about the house of $4\frac{1}{2}^a$. The rotation on the arable was oats; wheat; roots; wheat, barley or oats; seeds for two years. Yields on this system were pretty well up to present day standards

being 32 bu. wheat, 36 barley, 48 oats, 6 tons potatoes and 18 tons roots. For the roots lime, bones, and dissolved bones were applied in addition to dung. A few more livestock were kept than, say, Robert Marples kept in 1676. The animals were five working horses and one mare, two young nags, one yearling colt, one two-year old colt. Bower was a horse breeder and had three Shire fillies when the farm was visited in May, 1888. His cattle, chiefly Shorthorns, were in the previous December, 44 in all, including eight fat Herefords. About ten calves were reared annually, some homebred and some bought in, and eighteen steers were fed off each year. Fourteen cows and heifers were grazed with cake and sold off between June and October as fat. At the same time there was a flock of 127 sheep including 59 in-lamb-ewes. Usually about 70 ram lambs were kept for feeding, and the breed preferred was Lincolns, though half the ewes were crossed with a Hampshire or Oxford Down ram.

Strithfield Farm comprised 41^a arable and 44^a grass, and its occupier had been in it for twenty years, and his father before him since 1832. The land was mainly a heavy tenacious clay with a small piece of lighter soil. The rotation was 4-course, by virtue of the lease, and was vetches, cabbages, and a few roots; wheat, seeds, oats. Occasionally a bare fallow was necessary. The roots were drilled.

Only two working horses were kept, and the cattle were Shorthorn usually bought in Yorkshire. The herd amounted to 37, including milch cows, three feeders, one bull, eight rearing calves and two yearlings, all on grass. Mr. Milner had a high reputation for cheese and made about 2½ cwt. per cow, sometimes 3 cwt., and he kept nineteen middle white pigs. Still even he was selling a larger proportion of his produce as liquid milk, and he had adopted the further business of poultry keeping, some 140 fowls, mixed breeds, and some turkeys and ducks.⁴⁹

The general character of the farming remained the same for the next twenty years. The number of cheese factories in the county rose, but it could be said in 1894

⁴⁹ Thomas Stirton, *Report on the Prize Competition, Jour. R.A.S.E.* (1889).

that of late years the dairy stock had not improved. This is not surprising because there was a local prejudice against the use of pedigree bulls and the price of stores had been very low, so there was not a good deal of inducement to careful breeding. The horse breeding was more satisfactory, and was encouraged by such landowners as Lord Harrington who kept stallions to help the tenants with their breeding. He also encouraged fruit farming, finding the trees for the tenants to plant.

The wheat acreage in the county amounted to very little then, only 17,000^a, but the tillage was productive, and a 6-course rotation, rather like Mr. Bower's, was usual on Lord Harrington's estate. It was oats; wheat; roots; barley; seed for two years. One means of combatting the difficulties of the drought year and low prices was suggested by his agent. It was that more stock should be reared from good bulls kept by the landlords.⁵⁰

This at least to some degree had been achieved a decade later when "considerable attention" was given to breeding cattle and horses, and the county was said, if not to be entirely the home of the dairy cow, to have made advances from time to time in breeding Shorthorns for milk; but they were fed in a forcing way to increase the milk yield, and this was not quite approved of. By then too many more of the cheese-making farms had quite given up that employment, selling liquid milk, and so opening the market to imported butter, cheese and bacon. Corn growing, always pretty much out of the question in the north, was falling off in the south where a large area of land was being laid down to grass. But these things were not all bad. Great strides had been made in the previous 35 years in breeding Shire horses and in the valleys of the Trent, Dove and Derwent there were rich pastures as indeed there always had been. Sheep breeding was not a leading feature. Though the county was not given to wheat, some good barley was grown and the Derbyshire Agricultural Society was encouraging the growth of green crops.⁵¹

⁵⁰ *Rural Commissions on Agric.* (1894). Evidence of Gilbert Murray.

⁵¹ W. J. Skertchley, *Agriculture in Derbyshire*, *Jour. R.A.S.E.* (1905). Cf. J. R. Bond, *Derbyshire Farming Past and Present*, *Jour. R.A.S.E.* (1932).

Four centuries had almost been completed between the appearance of Fitzherbert's *Boke of Husbandrye* and the outbreak of World War I, and so far as may be judged the kind of farming practised in the county had not changed. It had spread, intensified, and adopted some modern devices in the way of feed, fertilisers and implements, and a good deal of the county had been reclaimed and brought into cultivation; but intrinsically the system followed remained much the same as the physical conformation and climatic and soil conditions had always demanded.