VOLUME I 1953

PRINCIPAL CONTENTS

Some Traditional Farming Beliefs in the light of Modern Science
by SIR JAMES SCOTT WATSON, C.B.E.

* The Poll Tax and Census of Sheep, 1549
  by M. W. BERESFORD
  *

The Isle of Axholme before Vermuyden
by JOAN THIRSK

* Agricultural Returns and the Government During the Napoleonic Wars
  by W. E. MINCHINTON

PUBLISHED BY
THE BRITISH AGRICULTURAL HISTORY SOCIETY
THE AGRICULTURAL HISTORY REVIEW

VOLUME I • 1953

CONTENTS

Editorial
Some Traditional Farming Beliefs in the light of Modern Science

Notes and Comments
The Poll Tax and Census of Sheep, 1549
The Isle of Axholme before Vermuyden
Agricultural Returns and the Government during the Napoleonic Wars
A Cornish Farmer in Ontario, 1830–71
List of Books and Articles on Agricultural History, 1952–3

The British Agricultural History Society

Reviews:

"The English Farmhouse," by Martin S. Briggs
"The Drove Roads of Scotland," by A. R. B. Haldane
"Vermuyden and the Fens," by L. E. Harris
"Scottish Farming in the Eighteenth Century," by James E. Handley
"The Evolution of the English Farm," by M. E. Seebohm

Notes on Contributors

Sir J. Scott Watson
M. W. Beresford
Joan Thirsk
W. E. Minchinton
John Rowe
G. E. Fussell
W. G. Hoskins
Joan Thirsk
M. E. J.
I. F. Grant
Joan Thirsk

page 1
4
8
9
16
29
44
48
52
54
55
58
58
60
3
EDITORIAL

A NOTHER society? A new review? A review competing for attention with the spate of contemporary letterpress, and a society demanding, in these days of cruelly straitened incomes, yet another guinea? The venture might well seem foolhardy indeed; and when it was first mooted, there were many who shook their heads in dismal anticipation of failure. But those who believed that there was room and need for such a society spared no effort to bring it into being; and it seems that their faith is being rewarded. Already, within a few months of its foundation, the British Agricultural History Society counts two hundred members, and at the moment when this first issue of its journal goes to press, there is good hope that it will soon number many more.

Considering that agriculture is vital to our existence, it is remarkable how little we know about its history in detail. Our knowledge consists largely of the generalizations framed by the writers of textbooks in their laudable endeavour to make us acquainted with the ‘average farm’ or the ‘typical village’. We accept the marked regional differences in present-day farming as part of its modern structure, but do we realize that such differences are not always due to modern specialization? The few regional studies which have dealt with local agriculture before the eighteenth century suggest that husbandry was formerly adapted even more rigorously to physical conditions than it is now. We are vaguely aware that the arrival of the first milk train in London about 1860 altered the whole pattern of the milk-producing industry and opened up a hitherto undreamt-of market for liquid milk. (Incidentally it was a day of ill omen for farmhouse butter and cheese.) But specialization is a good deal older than the second half of the nineteenth century. One might quote for example the well-established Middlesex strawberry-growing industry which was flourishing by the mid-eighteenth century; but it seems probable that specialized crop and stock production for the urban markets began much earlier, perhaps as early as the sixteenth century. The subject is one of many
that would repay investigation by scholars trained in historical research.

There are signs that our universities are aware of the need for detailed enquiry into the agricultural past. At Cambridge the Gilbey Lectureship in the History and Economics of Agriculture was endowed as long ago as 1896. At Reading, where from 1908 to 1912 one of the greatest living historians, F. M. Stenton, held a research fellowship in local history, the University has lately established a Museum of English Rural Life; and in the course of this last year it has taken the further important step of creating a lectureship in the history of agriculture. In 1947 the University College of Leicester made the pioneer move of setting up an independent department of English Local History, and in 1951 provided it with a senior research fellowship for the study of agrarian history.

Simultaneously with these moves by academic institutions there have been encouraging signs of a very general awakening of interest in the history of the countryside. Farmers, schoolmasters, craftsmen, and other country-dwellers, realizing the far-reaching nature of the changes brought about by the farming revolution of the mid-twentieth century, have made determined efforts to investigate and record the past. A number of conferences have been devoted to the subject; many local historical societies have been formed; and numerous exhibitions have stimulated people's interest in the history of their own village.

The British Agricultural History Society has been founded in order to bring together all who are interested in agriculture as a living and historical process. Historians, in studying the rural economy of past centuries, have all too frequently been handicapped by inadequate knowledge of practical husbandry. Farmers, who by the nature of their work are frequently in contact—sometimes in painful contact—with the problems of history, do not as a rule possess the scholarly equipment of the historian. Geographers, too, may be well advised to keep in touch with historians and agriculturists. There are many others whose work may give them an interest in rural history or who simply derive pleasure from studying it. We hope that the Society, through its meetings and this Review, will help to bring this wide field of interests together.

The frequency with which the Review is published must depend largely on the number of members. It is to be hoped that before long it will be possible to publish at least twice a year. The pattern of this issue will be substantially followed in the future. Our intention is that each issue shall contain a number of articles embodying original research in agricultural history, together with shorter notes and comments, a bibliography, and book reviews. The Editor will be glad to consider offers of material and also letters written for publica-
EDITORIAL

However useful the Society's meetings may prove as a forum for discussion and a means of disseminating knowledge, we are well aware that the value of its contribution to the history of agriculture will be judged, in the last resort, by the quality of its published work.

NOTES ON CONTRIBUTORS

The Editor, H. P. R. Finberg, M.A., F.R.Hist.S., is Reader in English Local History at University College, Leicester. He has published Tavistock Abbey: a Study in the Social and Economic History of Devon, and many papers on local history.

Sir James A. Scott Watson, C.B.E., LL.D., is Chief Scientific and Agricultural Adviser to the Ministry of Agriculture and Fisheries, and President of the British Agricultural History Society.

M. W. Beresford, M.A., is Lecturer in Economic History in the University of Leeds. He has published a number of papers on rural history, and has in the press a book on the deserted villages of England.

Mrs Joan Thirsk, B.A., Ph.D., is Senior Research Fellow in Agrarian History at University College, Leicester. She has published Fenland Farming in the Sixteenth Century and other papers.

W. E. Minchinton, B.Sc., is Research Lecturer in Social and Economic History at University College, Swansea.


John Rowe, M.A., D.Phil., is Lecturer in Modern History in the University of Liverpool. He has published a monograph on Cornwall in the Age of the Industrial Revolution.
Some Traditional Farming Beliefs in the light of Modern Science

By SIR JAMES SCOTT WATSON

I can lay claim to no competence in folklore. However, like others who have moved among farmers and dipped into the older farming literature I have, from time to time, stumbled upon a variety of traditional beliefs and have speculated about their origins and meanings.

At one time most human affairs, and many phenomena that science has since clearly explained, were believed to be subject to supernatural influences; and since astrologers and fortune-tellers still continue in business today, it would be rash to suppose that even in the so-called advanced countries all traces of superstition have disappeared. In any case, there are many interesting examples of superstitious beliefs in the older literature.

One of the more amusing comes from Aberdeenshire where, up till the eighteenth century, there was to be found on many farms a corner of land, generally good land, that was left uncultivated and commonly grew a luxuriant crop of docks and thistles. This plot was known as “The Goodman’s Acre.” The Goodman was the devil; he was so designated because, being prone to eavesdropping and very ready to take offence, it was well to speak of him in terms of respect. It was the devil who planted the docks and thistles in the farmer’s corn, and the best known means of inducing him to desist was to give him a field of his own, where he could grow his favourite crops without interference. The basic notion was thus the propitiation of an evil spirit.

Belief in magic—both white and black—was once universal and it still remains a powerful influence on the minds of primitive cultivators. The witch doctor commonly combines veterinary with human medicine and may also trade in rain-making and other sidelines. The modern Agricultural Officer, working among such primitive folk, may all too easily acquire an embarrassing reputation as a magician. For example, a particular District Agricultural Officer in West Africa was given the task of estimating the allocation of land, as between the various crops, in a group of villages. In order to limit the weight of his equipment he was accustomed to use dead millet stalks in lieu of survey poles. On revisiting one of his villages a year or two later, he found his improvised poles still standing, carefully propped up, on the sites where he had left them. It had happened that the crops, in the
year following his survey, had been exceptionally good, and it seemed that
the millet stalks were the instruments of a good magic that he had made.

In our own country, at least up till the eighteenth century, outbreaks
of livestock epidemics were ordinarily regarded either as punishments from
heaven for the farmer’s sins, or else as the work of some ill-disposed person
skilled in witchcraft or equipped with the evil eye. Suspended over the door
of many a cowshed in the Yorkshire Dales there used to hang—and may per-
haps still hang—a ‘ring stone’, and the current view is that this was a charm
against contagious abortion, which was generally believed to be produced
by witchcraft. The round perforated stone was a sure protection against the
evil eye.

Another widely used measure, against the same disease, is more difficult
to explain. This was the keeping of a billy-goat in the cowshed. The practice
was widely prevalent within very recent times, and may still survive. One
rather far-fetched theory is that since a single abortion is often the start of
an epidemic, it was to be supposed that the epidemic was essentially psycho-
logical; that the smell of the dead foetus exercised a kind of trigger action;
and that the overpowering aroma of the billy-goat masked all others. Per-
haps a more likely explanation is that the epidemic was regarded as a punish-
ment from heaven for the farmer’s sins, and that the billy was the ‘scape-
goat’.

One of the most widespread of surviving superstitions, especially among
gardeners, is that the germination of seeds, and the establishment of seed-
lings, is influenced by the phase of the moon at the time of sowing. Well
over a score of scientists have carried out controlled experiments on the
point, and the evidence is overwhelmingly to the effect that the idea is
without foundation. One may recall that the belief in the influence of the
heavenly bodies on farming affairs goes back to prehistoric times. The
priestly class in Egypt discovered that the onset of the Nile flood coincided
with the first appearance of the star Sirius in the morning sky. This ob-
servation, as is well known, made possible the construction of the calendar,
and it is noteworthy that the error in the original estimate of the length of
the solar year was only six hours. But it would also seem to have been
supposed that Sirius actually controlled the Nile waters. And it has been
suggested that the priests cashed in on their discovery by pretending to
intercede with Sirius (for a suitable consideration) and ensure that the
flood, upon which the crops depended, would not fail.

Another group of traditional beliefs seems to be explained as due to the
refusal of the human mind to accept the fact that certain occurrences are
matters of ‘pure chance’. The best example is the sex ratio in farm animals.
It is understandable that a farmer will look for a specific reason why a particular cow should produce heifer calves in each of four successive years; or why, in one particular year, a calf crop of twenty should consist of sixteen males and only four females; or why a particular setting of a dozen eggs should yield nothing but cockerels. There have been many prescriptions to ensure the production of heifer calves, and one can still purchase a device which will unfailingly distinguish the egg that contains a potential pullet from that which must produce a cockerel. But nothing of all this has borne examination under the cold light of science.

A third type of erroneous belief is essentially a misinterpretation of evidence, a wrong hypothesis. The distinguished biologist Vavilov examined the belief, widely held by peasants in certain parts of Russia, that wheat is very prone to degenerate into rye; he found that, in fact, the proportions of the two, in a mixture, did rapidly change—rye increasing at the expense of wheat; and since most of the so-called wheat contained an admixture of rye, and since rye is markedly more hardy than wheat, the outcome was the same as it would have been if the supposed transformation had actually taken place.

A parallel belief, till lately very prevalent in the Yorkshire Wolds, was to the effect that, under the prevailing conditions, ryegrass is prone to degenerate into couch-grass. The facts are that the common ‘commercial’ ryegrass, when sown on thin dry chalk soils, has a low competitive power and is short-lived; that couch-grass grows vigorously; and that the plants are not very dissimilar in appearance.

Most errors of this kind have had no particular ill consequences; but in some few instances they have led to misguided action. One of the oddest cases is that of an ailment in lambs formerly known in Yorkshire as Double Scalp, so called because one symptom is a thinning of the frontal bones of the skull, to such a degree that they break under relatively slight pressure. The recognized treatment, up till twenty years ago, was in fact to crush the frontals by tapping the head with a conveniently sized stone. Investigation showed that this particular symptom was only one of the many evidences of extreme malnutrition, the root cause being almost invariably a mass infestation of stomach worm.

We may conclude with a few examples of the many old beliefs which, viewed with scepticism or even blown upon by the early ‘book farmers’, have in the end been fully vindicated.

One of the oldest rules of crop rotation is that wheat must not follow wheat. It was reasonable to argue that wheat is an exhausting crop, and that it should be succeeded either by a restorative one, such as beans or clover,
or by something—barley or oats—that made lesser demands upon the soil, or else by a compensating application of fertilizers; and the early results of the continuous-wheat experiment at Rothamsted seemed to support this hypothesis. With adequate annual applications of fertilizers a succession of tolerably good wheat crops was grown over a long period. Then Mr Prout, of Sawbridgeworth in Hertfordshire, based a farming system upon the obvious lesson of Rothamsted. Over a period of decades he broke the 'rules of good husbandry' by having three parts of his farm in wheat, keeping no livestock, and selling the straw. He encountered no disaster but at the time found no disciples. The general run of farmers continued to be guided by tradition; and the tradition proved in the main to be well founded. In the 'thirties, with a guaranteed price for wheat and with little else in the way of security, many farmers attempted to do what Prout had done, but came to grief, not indeed by exhausting their soil, but through a build-up of soil-borne disease. Soil conditions at Rothamsted and Sawbridgeworth had been exceptional.

A colleague, Mr T. E. Miller, relates that when he took up his first post as Adviser in the East Riding of Yorkshire, he encountered what seemed to him to be a mistaken notion. This was in the days of strict four-course farming, with wheat following clover. But there was the old bugbear of clover sickness, and it appeared to him that a ryegrass-clover mixture would, as elsewhere, be a useful measure of insurance against a complete failure of the 'seeds'. But the farmers were not to be convinced; ryegrass was a bad preparation for wheat. Miller consulted his chief, Professor Seton, who advised silence; and eventually it transpired that the farmers were right. Both ryegrass and wheat are among the hosts of the frit fly, and in autumn, when a ryegrass ley is ploughed, the maggots migrate from the grass to the wheat seedlings, often with devastating results.

It would be an interesting exercise, for any one with the necessary leisure, to collect and analyse the proverbial wisdom of a tolerably homogeneous farming region: homogeneous because what makes sense under one set of conditions may make no sense elsewhere.

For example, Northumberland has a proverb which runs: “A sheep’s worst enemy is another sheep, and the sheep’s best friend is the plough.” This is explained by the fact that where excessive numbers of sheep are kept under a system of free-range grazing and where the leys are left down too long, parasitic worms tend to multiply; and despite our modern armoury of anti-helminth medicines, there is still truth in the old saying. But, so far as I know, there is no comparable proverb in East Anglia where, under the traditional folding system, the flock was moved to clean ground before
the sheep could be reinfected with parasites from their own droppings.

I hope the reader of this sketchy introduction may be persuaded that our traditional farming lore is an interesting field of study; and I would add that its interest is more than academic. Today's farming is indeed partly founded upon scientific principles, but modern science is far from providing a complete guide. Its other foundation is the accumulated experience of two hundred generations of practical men, and there is something to be gained by trying to separate the grain from the chaff.

Notes and Comments

A FOLK MUSEUM FOR THE WEST RIDING
In July Halifax Corporation opened Shibden Hall, Halifax, as a Folk Museum for the West Riding. Shibden Hall itself, a fifteenth-century house, forms the central feature of the display, and the barn and outbuildings have been used to house agricultural equipment and craft workshops. There is an interesting collection of transport vehicles and a well-equipped harness room. Of outstanding importance in the agricultural section is the late eighteenth-century threshing machine with its great three-horse wheel. The craft workshops are representative of those to be found in the neighbourhood of Halifax and include among them a smith and farrier, wheelwright, nail-maker, clogger, and file-cutter. One building has so far been removed and re-erected in the park, and that is a fifteenth- or sixteenth-century cruck-timbered barn from Wharfdale which was presented to the Museum by the duke of Devonshire. Halifax is to be congratulated on an excellent start to a brave and far-sighted venture.

THE AGRICULTURAL ECONOMICS SOCIETY
This year The Agricultural Economics Society has celebrated its twenty-fifth birthday under the presidency of our own treasurer, Professor Edgar Thomas. At the society’s summer conference, held in Cambridge, Professor Thomas appropriately gave his presidential address on the history of the society. His account of the early days is very reminiscent of the period through which our own society is now passing. Promoting the study of the history of agriculture has been from the beginning one of the objects of The Agricultural Economics Society and a number of papers on the subject have been given at its conferences. It is interesting to note that the first president of the society in 1927 was Lord Ernle, that Dr C. S. Orwin was chairman of its first executive, and our own president, Sir James Scott Watson, was a member of the committee.

SUMMER SCHOOL IN LOCAL HISTORY
The University College of Leicester announces a Vacation School in English Local History, to be held at Leicester from Wednesday August 4th to Saturday August 14th next. The school, which will be conducted by the Department of English Local History under the direction of Mr H. P. R. Finberg, will offer two concurrent courses dealing with the agrarian and urban history of England. Details of lectures, excursions, and fees will be announced in due course.

THE PURCHASE OF LAXTON
The report of the Agricultural Land Commission for the year ended March 1952

(continued on page 47)
The Poll Tax and Census of Sheep, 1549

By M. W. BERESFORD

IN March 1549 Parliament granted Edward VI the proceeds of a tax on sheep coupled with a purchase tax on cloth. It was probably the shortest lived tax in English fiscal history, being hastily repealed in January 1550 and although some of the tax was collected, it is doubtful whether it ever reached the royal purse. The records of the collection are imperfect and the proposed national census of sheep failed to be completed.

This list of failures and lost documents may not seem a very promising beginning. In fact, the failure of the Lord Protector Somerset’s attempt to tax sheep is a significant comment on the place of the wool-growing interest in national politics; the proposal itself is directly related to the long debate on the place of graziers in the national economy which occupied public men all through the sixteenth century; while the surviving documents, with their information about the size and ownership of a small sample of flocks in seven counties may be matched by other documents, as yet undiscovered, in local private and public archives.

No tax can be considered apart from the political and social attitudes of those who imposed it, and this tax of 1549 came at an acute moment in the controversies on agrarian policy. It was undoubtedly a product of the school of thought labelled ‘Commonwealth Men’, a group of divines, politicians, and pamphleteers who were anxious to see the acquisitive powers of the ‘cormorant’ landlords limited. In particular, they wanted tillage encouraged and the extension of pasture discouraged. A tax falling on sheep and cloth could not fail to be attractive in achieving these ends of social policy, and the Protectorate of Somerset, the young king’s uncle, provided the opportunity.

The tax was resented by landlords and graziers, who were not impressed by the argument that they could easily pass the tax on to the final consumers or by the offer of other tax reductions as compensation. The repeal of the tax within the year—and the petitioning of Parliament against it within eight months—is a measure of the feeling aroused. The fall of Somerset that autumn and the rise to power of Northumberland brought the end of the whole project.

The circumstances of the sudden repeal have led historians to believe
that the tax was never assessed and never collected. This attitude derives from a remark by A. F. Pollard in the longest study of the Protectorate of Somerset which we have. He wrote of this tax:

"This Act never came into force as its operation was deferred for three years, and before that time arrived Somerset had fallen, and Parliament, under the reactionary influence of the 'reformed' Council, abolished these taxes, thus relieving the wealthiest classes of any tax on the wealth which they were acquiring at the expense of the community."\(^1\)

In fact, the Act granting 'the Relief on Sheep and Cloth' makes it quite clear that the tax was to be levied at once.\(^2\) The period of three years which Pollard noticed was the period for which the tax should run, not the period for which it should be deferred. The Act ordered that the machinery for assessment and collection should begin to turn on 1 May 1549, two months after the end of the parliamentary session. The collection was to be complete by 1 November. Since the repeal did not take place until the session of Parliament which began that November, there was every reason to expect, until the contrary was proved, that the tax was collected. You could hardly expect the advocates of repeal to raise much sympathy for a burden which had never been laid upon them or would not be laid for another three years.

With this in mind, I began to search among the records of the Exchequer to see whether there were any assessments or accounts in connection with the Relief. In my first searches I was unlucky: the contents of the rolls in this class (E 179) are only described in the typescript lists at the Public Record Office in very general terms, so that collectors' accounts for this year, 1549, might on examination prove to have nothing to do with these taxes on sheep and cloth. The first dozen rolls I examined had no mention of a sheep in them, but at my second attack on the hundred or so rolls for this period I came upon a roll with a quite different appearance, the columns of the calculations necessary to determine a man's liability to this new tax. Such accounts have been recovered from five counties. Their location is given below,\(^3\) but in order to appreciate what the tax sought to do it will be necessary to consider something of the background to the suggestion that sheep and cloth should be taxed and to summarize the content of the statute authorizing the tax.

It must be made plain that neither in the Act granting the tax nor in

---


\(^2\) 2 & 3 Ed. VI c. 36, *Statutes of the Realm*, iv, p. 78.

\(^3\) In Part II of this article.
John Hales's proposals for a tax in the previous year\(^1\) can we find any overt defence of the tax as an instrument of agrarian policy. It was discussed solely as a revenue-raiser. In the proposals of 1548 it was a suggestion for a new source of revenue to replace income which would be lost if certain other tax concessions were made. In the preamble to the Act of 1549 the reasons put forward were the usual ones for any grant to a Tudor monarch: the necessities of defence and the rising expenses of the royal household. Indeed, in the proposals of 1548 Hales very much underplayed the question of incidence. It is a little tax, he argued; it can be passed on to foreign consumers; the burden on Englishmen is so light that no one will notice it. Yet the context in which the proposals were made makes it certain that the deterrent effect of a tax on sheep was both obvious and attractive to Somerset's advisers. It was all of a piece with their agrarian reforms. They could not have been unaware of the effect it would have in making sheep-rearing more expensive and therefore less of a rival to tillage. They must have known that the tax on cloth would make cloths dearer and therefore discourage an industry whose growth seemed to have so many undesirable results. The encouragement of tillage and the restriction of the large-scale growth of cloth-manufacture were integral parts of the programme of the Commonwealth Men for lower prices and social justice.\(^2\) The effect of the tax was clearly seen by the unknown author of a pamphlet written just at this time, *Policies to Reduce this Realme of England unto a Prosperous Wealthe and Estate*.\(^3\) He wrote: "Ther coulde have byne no redier waye to cause a great quantiti of the said Ship pastures to be converted into erable then this Subsidie [i.e. the Relief] uppon Shippe." Indeed, he wished that the tax could have fallen more heavily than it did.

Despite the tactful silence of their protagonists, the poll tax on sheep and the accompanying tax on cloth take their place alongside other Tudor attempts to deter the expansion of grassland and the further enclosure of arable. The taxes stem from the same policy which sent out the Commissions of Inquiry in 1517–18 and the fresh Commissions in 1548–9, among whom John Hales himself sat. I have elsewhere analysed the results of these Commissions of Inquiry and the prosecutions which followed.\(^4\) A close parallel to the sheep tax is the Act of 1533 by which it was made an offence

\(^1\) 'Causes of Dearth' in *State Papers, Domestic, Edward VI*, v, no. 20, printed in *A Discourse of the Commonweal*, ed. E. Lamond, 1929, pp. xlii-v.

\(^2\) The political thought of this group of men has been sympathetically analysed by A. F. Pollard, *op. cit.*, and by Professor R. H. Tawney in *Religion and the Rise of Capitalism*.


to keep flocks of more than 2,400 sheep. Any informer could sue for half the penalty due to the Crown by the owner of the over-large flock. In so far as such informations were laid in the court of Exchequer, I have found a small trickle from 1535 until the end of the reign of Edward VI with isolated examples through to the end of the century. This measure was in the mind of the reformers in 1548. One of Hales's charges to the jury in the Commission of Inquiry of that year was to report on any violation of the Act of 1533, "if any person hath or doth keep above the number of two thousand sheep, besides lambs of one year's age..." But the direct attacks on the flocks seem to have failed, and in the second Parliament of the new reign the reformers took the opportunity of the call for revenue to make an attack on the sheep masters from another direction.

Proposals for a direct tax on sheep must have been in the air as early as the first autumn of the reign if a paper of 6 October 1547 is correctly dated. This paper took the form of a memorandum to Somerset attempting to estimate the sheep population, in order to estimate the yield if sheep were taxed. The population could only be estimated in a roundabout way since the only information at ministers' disposal was the amount of the dues on certain cloths. Having assumed that each cloth contained so much wool, the author had to find an equation linking wool and sheep. He made two calculations, each based on a different assumption about the number of fleeces one would need to get a tod (28 lb) of wool. One alternative gave him 8,407,819 sheep in 1546, and the other, 11,089,149.

His memorandum then estimated the yield if sheep were taxed, and it is significant that he took a different rate for different types of sheep, as the Act of 1549 was to do. The reason given was simply that the sheep feeding on enclosed pastures gave their master more wool. "Pasture men, because ther cattell is bothe greater and carieth more wolle, to paie for every sheere sheep thre half pens... and for every (Ewe) after two pens." Other sheep, of all kinds, grazing on the commons or the open fallow were to be charged at the flat rate of a penny a head. This was the recognition of that superior yield from animals grazing on permanent and enclosed

2 These informations can be found on the Memoranda Rolls of the King's Remembrancer (E 159) at the Public Record Office.
4 State Papers, Domestic, Edward VI, II, no. 13, printed in Tawney and Power, op. cit., I, pp. 178-84.
pasture which lay behind the whole movement to convert arable to pasture in the Midlands at this period.

A second memorandum, known to be by John Hales, was drawn up the next summer, probably for a speech in the Parliament which opened in November 1548. It was headed *Causes of Dearth*, and we shall refer to it simply as Hales’s *Causes.* This memorandum also estimated the sheep population and the yield of a sheep tax. It came to a much lower figure than the 1547 calculations. It reckoned on 3,000,000 sheep. This reduction may have been due to some new information at the government’s disposal; or it may have allowed for the exemption of the small peasant flocks. Nothing was said about these in the *Causes* but the Act of 1549 treated the small flocks more leniently.

It will be convenient to tabulate the two estimates.

<table>
<thead>
<tr>
<th>Type of Sheep</th>
<th>Tax Proposed</th>
<th>1547</th>
<th>1548</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(Anon.)</td>
<td>(Hales)</td>
</tr>
<tr>
<td>Pasture sheep</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ewes</td>
<td>2d.</td>
<td>2,101,954</td>
<td>750,000</td>
</tr>
<tr>
<td>Wethers</td>
<td>1½d.</td>
<td>2,101,954</td>
<td>750,000</td>
</tr>
<tr>
<td>Commons sheep, all kinds</td>
<td>1d.</td>
<td>4,203,909</td>
<td>1,500,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>8,407,819</strong></td>
<td><strong>3,000,000</strong></td>
</tr>
</tbody>
</table>

Both authors made the same assumption, that half the sheep population was made up of animals grazing on commons and common arable; that another quarter comprised ewes grazing on enclosed grassland; and the other quarter consisted of wethers also on enclosed grassland. The rates of tax proposed were the same in each document.

Different total yields followed from the different sizes of the estimated sheep population. In 1547 the memorandum hoped for just over £35,000 at a flat rate of a penny per head or just over £48,000 at the differential rates set out above. In the *Causes* only £17,187 was expected. Had this been all collected it would have equalled about one-third of the yield of the subsidy for a year. The document of 1547 hoped that, in addition, about twice this sum (£32,253) would be obtained from the levy on cloth.

The interest of these figures is not their accuracy, which we have no means of testing, but their being made at all. They anticipate some of the more sophisticated reckonings which were to appear in the next decades.

---

1 See p. 11 *supra*, n. 1.
among Cecil's papers. They are themselves useless as a reliable estimate of the sheep population since they took account only of cloth exported. They can say nothing about the sheep whose fleeces were giving wool to clothe English backs.

"In all this accompte no mention is made of the shepe whose wolle was made into Clothe and Cappes spent that yere in the Realme nor of skynnes tanned, white lether or parchement. And therfore it maye be trulye saied that ther wer more sheepe then is before rehearsed."  

The second memorandum, Hales's Causes, is much nearer to the actual statute of 1549 than the first. It looked on the poll tax on sheep and the cloth levy as convenient alternative revenues if the king would abandon his right to take 'provysions'. The right of the royal provisioners to commandeer supplies at prices below market level was a widespread grievance, particularly since the royal price-tariff was still that of pre-inflation days: "the purveyour alloweth for a lambe worthe two shylinges but xii d." Hales alleged that the fear of provisioners and purveyance discouraged food-growers, and a new and 'certain' tax was looked for, whose arbitrariness would not deter the 'breeding of victuals'.

"This certayntie myght be thus gathered: that the kyng myght have of every sheepe kept in the comen feldes one peny, of every Ewe and Lambe kept in severall pasture two pens, and of every other sheere sheepe kept in pasture, thre halfpens."

This would yield, he calculated, £17,187 10s., "which it is thought will do somwhat, albeit not sufficient, towards the provysions of the kynges householde."

In addition, Hales proposed a new levy on cloth manufactured in the kingdom at the rate of 5s. on a broad cloth and 1s. 8d. on a kersey, with a double custom on cloths exported. (A tax on home-produced cloth at the rate of 3½ per cent "of the pryce and value of all woollen cloths made for three years" was actually incorporated in the Relief of 1549.)

In exchange for these two new taxes Hales proposed that purveyance should be abolished from Christmas 1548 except for genuine purchases for the Household at current market prices. (He also proposed to relieve towns of their traditional fee farms, and to relieve tenants of the Crown from their obligation to do homage or to pay for non-performance.)

1 The significance of these calculations has been stressed by Lawrence Stone, Econ. Hist. Rev., 2nd ser., ii, 1949, pp. 29-32.
2 Tawney and Power, i, p. 182.
THE POLL TAX AND CENSUS OF SHEEP, 1549

conclusion, the *Causes* attempted to analyse the incidence of the tax on sheep and cloth: the gentlemen will be pleased to avoid the charges of homage; the tax on cloth will be easily passed on to the consumers: “The clothier can have no losse therby, ffor he will recover it in his sale which is after the rate of two pens in the yarde of clothe.” In a word, it was to be the dream of all statesmen, a tax to which no one (except foreigners) objected. Inspection of the cloth, which Hales assumed would go alongside collection, would also improve quality, he argued; merchants will gain in repute from this, and the customer would be delighted “when one garnement beying made of good and true clothe shall least [i.e. last] twise as long as garnements do at this tyme.” (The despondency among clothiers when the demand for cloth should be thus halved was not considered!)

Restrictions on sheep-masters were also envisaged in another measure which Hales was proposing at this time, one of three Bills to bring down prices and cure rural distress. The draft Bill has been preserved.¹ It proposed, *inter alia*, that guild and chantry land should be protected in the same way as in the Act of 1536 which had attempted to force the purchasers of ex-monastic land to maintain tillage upon it;² Hales also suggested that any one keeping more than a thousand sheep on enclosed pastures should turn out one fifth on the fallow common fields each May, there to manure the villagers’ strips of arable until Michaelmas.

*(To be continued)*

¹ *State Papers, Domestic*, v, no. 22, printed in Lamond, *op. cit.*, pp. xlv-lii.
The Isle of Axholme before Vermuyden

By JOAN THIRSK

The Isle of Axholme lies in the extreme north-western corner of Lincolnshire, separated from that county by the river Trent, and from Nottinghamshire and Yorkshire by the former channels of the Idle, the Torne, and the Don. Once one of the natural regions of England with an economy distinct from that of its neighbours, it retains to this day its island situation, and something of the insularity which marked its former way of life.

The isle covers an area of 51,104 acres, and until the nineteenth century contained nine parishes, of which three, Belton, Epworth, and Haxey, each measured more than eight thousand acres, and together encompassed more than half the island. Large parishes denote a sparse population in the early days of settlement. The land was unattractive to the farmer, for much of it was permanently inundated, and all of it exposed to the floodwaters of the Humber, the Trent, and smaller rivers. The island was not densely settled at the beginning, therefore, but served the invaders as a corridor to the Midlands. First the Danes and then the Normans contributed vernacular elements to make up its modern name.¹

Scant attention has hitherto been paid to the farming history of the island before the drainage operations of the seventeenth century. Vermuyden has held the centre of the stage ever since Dugdale in his History of Imbanking and Draining described his efforts at draining Hatfield Chase and the flooded parts of Axholme, and deplored the opposition he encountered from the islanders.² Dugdale was echoing the official view of an obstinate, ignorant peasantry, clinging to a miserable life because they were incapable of grasping the superior benefits of drainage. The same story has been told with additional detail many times since. Writers have admitted that Vermuyden made mistakes. George Dunston went so far as to say that “while he (Vermuyden) effectively drained Hatfield and Thorne, he made the condition of the Islanders considerably worse than before.”³ But no one has yet attempted

¹ According to Ekwall, the meaning of the name Axholme is ‘the holme or island of Haxey’, Haxey being a village in Axholme, meaning perhaps ‘Haks island’. The Normans added the synonym ‘isle’. The result was ‘Isle of Axeyholme’, later contracted to Isle of Axholme.— E. Ekwall, Concise Oxford Dictionary of English Place Names.
² W. Dugdale, The History of Imbanking and Draining . . . , 1662, p. 145.
³ G. Dunston, The Rivers of Axholme, 1909, p. 27. This book contains the best account of
to see the project in its contemporary setting, as a scheme summarily embarked upon, without much prior investigation into the islanders' old way of life, or consideration of its merits.

It is the purpose of this article to examine farming practice in the Isle of Axholme in the sixteenth and early seventeenth centuries, in order to judge the drainage project from the point of view of the inhabitants. Seen in this way, Vermuyden's work appears not as an attempt to establish a system of husbandry where none had been before, but to substitute one economy for another. The old economy was pastoral, the new one arable. We can look back on the controversy three hundred years later and see the triumph of Vermuyden's plans. The island was effectively drained, and nowadays cereals, roots, and green vegetables are its principal crops. But long before Vermuyden's day, the islanders had evolved a system of husbandry which had come to terms with nature, and made good use of the existing resources. The principal produce of the isle was meat, dairy produce, leather, wheat, and hemp—commodities for which there was a steady demand in sixteenth-century England. Vermuyden promised to make the fen fertile for rape and corn, apparently unaware that the old husbandry could fully justify itself on economic grounds. His struggle with the islanders was not, therefore, a struggle to create prosperity in place of poverty; its object was to substitute a new economy for the traditional one.

Axholme can best be described as a lop-sided version of the shape of England and Wales. A central ridge with a maximum height of 133 feet runs the length of the island from north to south, occupies about one-quarter of the total area, and accommodates the principal townships of Crowle, Belton, Epworth, and Haxey, as well as a number of hamlets. The market towns were Crowle and Epworth, but all four main centres of population were comparatively large. In 1603 over 150 families lived in each parish.

Originally, the whole of the island was comprised within the ancient manor of Epworth and its members. In the seventeenth century one of these was severed from it, when Crowle manor, which occupied the northern quarter,
was conveyed by Charles I to the City of London as part of the Ditchfield grant. The rest, with the exception of some small estates, remained the property of the Crown. It comprised the manor of Epworth, which stretched from Althorpe and Belton south as far as Burnham, and the manor of West-

---

1 W. Peck, *A Topographical Account of the Isle of Axholme*, 1815, Appendix No. 3. The Ditchfield grant was crown land conveyed to the City of London by Charles I in 1628 in satisfaction of two loans earlier made to him by the Corporation of London. Crowle manor was re-sold to Sir Gervase Elwes, Jeremiah Elwes, and Nicholas Hamerton. I owe this information to Mr Robert Ashton.

2 There are references to Haxey Hall Garth manor and Ancowe manor in a survey of 1607. These may be the “smaller properties” referred to by Dunston, and said to have developed in the sixteenth century under crown ownership and to have been subsequently enfranchised. —PRO LR 2, 256, f. 194; G. Dunston, *op cit.*, p. 16.
By the sixteenth century the Isle of Axholme had a large population of small peasants. More than a quarter of the tenants of Westwood manor had holdings of one acre and less, and over half (54 per cent) had five acres or less. Arthur Young's description of conditions in his day would have been equally appropriate two hundred years before. Farms, he said, were small, and amounted often to no more than four or five acres, while twenty acres supported a family very well because of the exceptional fertility of the land. The very poorest cottagers were proprietors of farms, and though "poor respecting money," were "very happy respecting their mode of existence."  

The arable land of the townships of Axholme lay on the higher ground of the central ridge. An Elizabethan map of part of the isle south of Haxey shows that the common fields lay within the triangle formed by the villages of Epworth, Haxey, and Owston, with no common pasture to separate them. Haxey fields abutted on the fields of Burnham and Craisonound, Burnham fields on those of East Lound and Owston, Owston fields on those of Kelfield and Kinnard's Ferry. Many farmers held land in more than one village, but they did not necessarily walk long distances between the different parts of their holdings.  

The soil on the higher ground of Axholme was renowned for its fertility long before Arthur Young proclaimed it "among the finest in England." John Leland over two centuries earlier deemed it "meatly high ground, fertile of pasture, and corne," and this view was confirmed in more precise terms by Charles I's surveyors. The soil in the common fields of Epworth was said to be of two kinds. The major part lying nearest the town was a black, sandy ground, worth sixteen shillings an acre, the rest a stiff clay worth twelve shillings an acre. The richer soil was sown with hemp one year, barley the next, hemp the next, and rye the next, apparently without any fallows. At Crowle and Eastoft, on the other hand, there is evidence that the common fields were fallowed every fourth year, and this, taken together with the fact that in Westwood manor a balanced farm holding was dispersed in four fields, suggests that a four-course rotation, including one fallow, was the alternative system, if not the more usual one. Certain it is that the arable land was more than usually fertile, and was made to bear as many crops as possible.

---

1 PRO LR 2, 256, f. 52 et seq. The first page of this survey is missing, but since the whole covers over 150 pages, the figures are not seriously defective.
2 Arthur Young, General View of the Agriculture of the County of Lincoln, 1799, p. 17.
3 PRO MPB 16; LR 2, 256, f. 52 et seq.
4 Arthur Young, op cit., p. 10; G. Dunston, op cit., p. 18; PRO E 315, 390, f. 37v; E 134,
By the 1630's the enclosed demesne lands of Epworth manor were managed on a different system, eliminating the need for fallows altogether. A scheme of alternate husbandry was in operation, the tenants dividing their closes into three parts, and using them alternately for hay, grazing, and crops. The estate amounted to roughly 722 acres. In 1633, 56 per cent of the whole was subject to this alternative husbandry, and was classified as arable, meadow, and pasture. Twenty-two per cent was pasture, twenty per cent meadow, and only two per cent strictly arable.

This system of land use was frowned on by John Hynde, the surveyor of the manor, who argued that the land had originally been used for pasture and meadow, and that, since the soil was of the stiff clay kind, ploughing would quickly impoverish it. His reasoning was faulty, but since it would have been difficult with the implements then available to produce as good grassland after ploughing as before, he was probably right. At any rate, by 1650 his words had produced their effect. The land classified as arable, meadow, and pasture had fallen from 56 to 32 per cent, the arable area had increased from two to 31 per cent, and the pasture from 22 to 33 per cent. One of the leases contained a clause prohibiting the tenant from ploughing up meadow and ancient pasture.¹

The holdings of manorial tenants in Axholme lay for the most part in strips in the open fields, and judging by Westwood manor, which comprised roughly one-quarter of the isle, included a high proportion of arable. In 1607, Westwood had sixty per cent of its cultivated land under the plough, thirteen per cent meadow, ten per cent pasture, and ten per cent of enclosed ground. Four and a half per cent was described as arable, meadow, and pasture, and was probably used in the same way as the demense land of Epworth manor, while the rest consisted of hempland, and land of unspecified use. Compared with the figures of land use in the Holland fenland, it is clear that the peasants of Westwood, and probably of Axholme as a whole, had a much higher proportion of their village lands under crops than the farmers of Holland.² At the same time, the economy of both was pastoral, for the village lands in both regions were only a fraction of the total land. Westwood manor

¹ PRO E 315, 390, f. 37v.; E 317, Lincs. 16.
² The arable amounted to between 40 and 42 per cent of the land of two manors in Skirbeck wapentake in Holland, and between 4 and 25 per cent in six manors in Elloe.—Joan Thirsk, *Fenland Farming in the Sixteenth Century*, Occasional Paper No. 3, Department of English Local History, University College, Leicester, pp. 22–3. Strip cultivation continues at Epworth to this day.
was typical of Axholme estates in having only about 1,500 acres under cultivation, while its common, in which the tenants shared pasture rights with the tenants of Epworth manor, amounted to 14,000 acres.

Although the surveyors of Epworth spoke only of hemp, barley, and rye growing in the fields, these were not the only crops, nor even the most important ones. Peas and beans, oats, and wheat were grown as well as flax. The probate inventories show that wheat occupied nearly three times as much ground as rye, and peas rather more than twice as much ground as hemp. Barley was the biggest crop, however, as it was in all other regions of Lincolnshire apart from the marshland, and occupied one-third of the sown area each year. Wheat occupied over a quarter of the sown area (28.4 per cent), and peas rather less than a fifth (18.8 per cent). Hemp occupied 8.4 per cent and rye 10.7 per cent. Oats and flax lay in store, but in the inventories of property used here are not found growing in the fields. They were probably less usual crops and were grown in small quantities.

In the choice of crops there were significant differences between Axholme and the fenland of Holland. Not only was the arable acreage in Axholme relatively larger, but the balance struck between spring and winter sown crops was different. The two facts were probably interconnected, for all Lincolnshire farmers in the sixteenth century appear to have regarded the spring crops—barley and pulses—as the essential ones no matter what the size of their holdings. If more land was available for crops in one region than in another, then the less important crops, wheat and rye, were given a larger place. Hence more ground was given to winter corn in Axholme than in Holland. Three times as much wheat was grown, and four and a half times as much rye. A reduced acreage of barley (33.4 per cent in Axholme compared with 54 per cent in Holland), and of beans and peas (18.8 per cent in Axholme compared with 28.6 per cent in Holland) compensated for the larger acreage of wheat and rye. There was a much closer resemblance between the crops of Axholme and those of the marshland clays of Lincolnshire, for almost the same proportion of winter corn and barley was grown. Here the chief difference lay in the fact that Axholme grew hemp in quantity, while the marshland grew very little. The acreage devoted wholly to pulses in the marshland was divided in Axholme between hemp and peas.

The importance of hemp and flax is heavily underlined in the probate inventories. They were not grown as cash crops for direct sale, but laid the foundations of a comparatively large-scale domestic industry of spinning and weaving, which was of exceptional importance in the fen regions of Lincolnshire. Whereas few Axholme peasants had any wool in their possession, and

1 PRO E 134, 13 Eliz., Easter 5. 2 LRO Probate inventories.
less than one in five kept any sheep, hardly a single inventory has been found which does not mention hemp, and sometimes flax, together with the goods made from them. John Parish of Beltoft, who died in 1590, left line cloth, femble, and harden cloth worth £3 5s. 4d., femble yarn and harden yarn worth ten shillings, heckled line and femble worth two shillings and sixpence, braked hemp worth six shillings and eightpence, and hemp and linseed worth ten shillings. John Farre of Epworth died a year later, and left sacks and sack yarn worth 26s. 8d., and hemp on the ground worth £3. John Harrison of Newbig left two acres of hemp, and forty yards of sack cloth worth 52s. Robert Pettinger of Haxey parish had hemp seed worth 13s. 4d. and three stones of hemp worth six shillings. John Pettinger of East Lound had nineteen yards of linen cloth, twenty-two yards of femble cloth, twenty-six yards of harden, pilled hemp and braked hemp, hemp ground and hemp seed, sack cloth and yarn.1 These are random examples typical of the rest. They show that the flourishing sack- and canvas-making industry of Axholme in the nineteenth century had a long history behind it. To the average peasant family of the sixteenth century it was a profitable by-employment. To the poor it was one of the principal ways of earning a living. One of the victories won by the inhabitants of Axholme in their prolonged legal battles with Vermuyden was an award in 1636 of £400 for a stock to employ the poor in the making of sack cloth, to compensate them for the loss of fishing and fowling rights.2

Meadow land constituted about thirteen per cent of the land of Westwood manor, and judging by the field names and the small size of individual holdings (two or three roods or one or two acres were the usual allotment) lay in strips grouped among the arable fields, wherever water was conveniently handy. Kelfield, for example, had its meadow along the banks of the Trent. Hay was cut in certain parts of the commons as well, and was specially abundant in wet summers. It was also gathered along the banks of the dikes, for a poor man called Bointon had the right to cut hay along the Idle river in return for keeping the banks in repair, and thus gave his name to Bointon Stile.3

Outside the ring of townships and arable fields lay extensive common pas-

1 LRO Probate inventories, 80, 61; 81, 481, 448; 80, 5, 34. Line is flax; femble=the female plant of the hemp; harden=a coarse hempen cloth; heckled line=dressed flax; braked hemp=dressed hemp; pilled hemp=stripped hemp.
3 PRO E 134, Supplementary 901, 1D, Lincs.; E 134, I & 2 Jas. II, Hilary 25; E 134, 39 Eliz., Easter 14; LR 2, 256, f. 52 et seq.
ture, of which the greater part lay in the western half of the isle. Crowle manor possessed between three and four thousand acres of common. Epworth manor, with its member manor of Westwood, possessed some fourteen thousand acres, roughly half of it lying south and west of Haxey and Owston, the rest north, east, and west of Epworth and Belton. The large commons of Epworth were divided by name into smaller units, but there were no barriers to the commoners' cattle apart from those imposed by the dikes. All the tenants of Epworth manor could graze their stock wherever they liked throughout the common.

The common pasture was intersected by natural creeks and man-made dikes, serving to drain away the surplus water. Burnham Skiers was an example of a natural creek which separated Burnham's open fields from Haxey North Carr. Heckdike was a man-made channel, first mentioned in documents at the end of the thirteenth century, which linked natural creeks in the southern part of Haxey Carr with the river Trent. It was but one of several sewers built to drain the commons before Vermuyden's day.

Dikes, sewers, and rivers provided waterways all over the isle. The main traffic routes, which linked the western, southern, and eastern boundaries, were the river Idle, Bickersdike, and the river Trent. On these, ships with mast and sail carried passengers, and goods which included flax, hemp, corn, peat, and coal. The dikes and creeks were mostly narrower waterways, leading off into the heart of the isle, and carrying small craft only. In winter the waterways multiplied and widened and provided an excellent system of communications. At the same time they acted as barriers to keep out strangers, and kept the island to some extent cut off from the rest of the world.

From the commons the islanders took turves and wood for fuel and building repairs, sods and clay to manure their arable lands, hay at the right season, and fish and fowl. In Epworth manor, fishing rights in the river Idle were leased to a few individuals. But all tenants and inhabitants of the manor had the right to set bush nets and catch white fish on Wednesdays and Fridays. Most important of all, the commons provided grazing for stock. So great was the feeding capacity of Crowle commons that the village regularly took in stock in summer from other places. Four grassmen, appointed by the

1 PRO E 134, Supplementary 901, 1D, Lincs.; E 178, 5412.
2 PRO MPB 16; Gover, Mawer, and Stenton, *Place Names of Nottinghamshire*, English Place-Name Society, xvii, 1940, p. 39; PRO E 134, 39 Eliz., Easter 14. Two of the sewers in Haxey Carr were called Queen's Sewers, and were probably constructed in Elizabeth's reign.
3 PRO E 178, 5412.
4 The inhabitants claimed that Bickersdike kept out thieves and marauders from the isle until a bridge was built in Elizabeth's reign. See *infra*.
5 PRO E 134, 1 & 2 Jas. II, Hilary 25.
townsfolk, supervised the arrangements, and "tooke as many Cattell of forr-
reyn Townes as they coulde gett." The profits—about forty shillings a year—
were put to the use of the town.¹

Much of the commons, of course, lay under water in winter from Martin-
mas (November 11) till May Day. But this was not all loss. As the inhabi-
tants of Epworth informed the king's commissioners, too late to undo Ver-
muyden's work, the floods brought with them "a thick fatt water," which
enriched the ground, and enabled it to support large numbers of cattle, sheep,
and pigs in summer. Moreover, although the fen was inundated in winter,
there were always portions of the commons which remained dry. Some parts,
like Curlehall Wood on Crowle commons, remained dry islands in the midst
of water, and had to be reached by boat. Others adjoined the arable fields and
were accessible all the year round. By using these dry patches of commons, as
well as the grazing in the arable fields and enclosed pastures, the inhabitants
of Epworth and Westwood manors kept 12,000 cattle besides sheep and
swine during the winter.² Similarly, at Crowle the commoners had four hun-
dred acres of "good and drye pasture" in winter, and were able to keep "a
great Number of great Cattell and shepe goinge in their fennes and Common
in Wynter season." In dry years the grazing at Crowle was adequate. The
only time of shortage was in wet years from the beginning of spring until
Whitsuntide, when the stock was multiplying and the common was not yet
dried out. No one at Crowle, however, had ever been known to farm out his
stock in other places for want of grazing.³

The area of commons was large, and, as the commoners of Crowle de-
clared, adequate for their needs. But an increase of population in the six-
teenth century threatened to produce a pasture shortage in the southern part
of Axholme, and gave rise to disputes between the islanders and their neigh-
bours in Nottinghamshire about common rights. A hundred years earlier
the farmers of Misterton and Stockwith in Nottinghamshire had taken cattle
unchallenged into Haxey Carr.⁴ But the population began to grow, and all
villages faced the problem of feeding increasing numbers on a fixed amount
of land. At Epworth manor one hundred additional cottages were built be-
tween about 1590 and 1630. At Misterton thirty new cottages were erected
in forty years.⁵ More people meant more stock, and a greater demand for

¹ PRO E 134, Supplementary 901, 1D, Lincs.
² PRO E 134, Supplementary 901, 1D, Lincs.; E 134, 1 & 2 Jas. II, Hilary 25; E 178, 5430,
5412.
³ PRO E 134, Supplementary 901, 1D, Lincs.
⁴ Although, according to Thomas Hullam of Nether Burnham, they did it secretly "for
feare of being espyed."—PRO E 134, 39 Eliz., Easter 14.
⁵ PRO E 178, 5412; E 134, 39 Eliz., Easter 14. Similarly at Crowle, Tetley, and Ealand
there was an increase of forty households in forty years.—PRO E 134, 19 Eliz., Hilary 8.
pasture. Misterton's cattle began to invade Haxey Carr in large numbers. Doubts and disagreements arose out of uncertainty about the boundaries of the commons. Haxey Carr had a definite southern boundary—Bickersdike—but Bickersdike was not the county boundary at this point, nor the manorial boundary. A portion of Haxey Carr between Bickersdike and Heckdike lay in Nottinghamshire, and was claimed as common by the inhabitants of Misterton and Stockwith. But they were unable to get to it easily across Bickersdike. They swam their cattle across in summer, and at other times led them the long way round, first into Stockwith and then across Bickersdike by the farthing ferry. The ferry was replaced in the 1530's by a bridge, but the long journey into the Carr continued to be a deterrent to its use. The common rights which Misterton claimed, therefore, were not consistently exercised until Elizabeth's reign.

In the late 1570's the farmers of Misterton decided to make access to the Carr easier by building a ford, and a few years later a bridge, across Bickersdike at the nearest point to the village. Thenceforward, nothing prevented them from driving unlimited cattle into the Carr. Sheep and pigs, which had never been taken over from the Nottinghamshire side, were driven across in the morning and taken back at night.

The inhabitants of Haxey complained that their pasture was being overcharged, and started a dispute which raged in the courts for more than thirty years. In 1570 the judges decided that Misterton and Stockwith had pasture rights for all cattle, but were not entitled to put a cattle herd or shepherd in charge of them. The quarrel did not end there, but its later history is of less interest than the information about husbandry already given. The so-called unprofitable fens of Axholme had long been exploited by the inhabitants for grazing and other purposes. So heavy were the demands made on them in summer, indeed, that the floods were essential to enrich them again in winter. Even the land which continued wet in summer was not wasted, but was cut for hay. In short, "the very lowest ground in the manor of Epworth in the overfluds was usefull to the inhabitants."

In the light of these facts, it is not difficult to explain why the inhabitants of Axholme fought a bitter struggle against the confiscation of two-thirds of

2 PRO E 134, 1 & 2 Jas. II, Hilary 25. It may be that some of the misconceptions about the fenland have persisted because of an error in interpreting contemporary documents. The crown called the fenland "unprofitable". This has been taken to mean that the fen was unprofitable in every sense, when, in fact, the crown was speaking as a landlord only, and complaining that it did not receive any rent for the fenland. It was not concerned with the question whether the fen was profitable to the inhabitants.
their commons by Vermuyden, his associates, and the Crown. But neither
the Dutchmen nor the king and his advisers were sufficiently informed to
understand the opposition which they aroused.

The drainage works were begun before the inhabitants of Axholme were
given any opportunity to put forward a case for the old husbandry. Vermuy-
den signed an agreement with Charles I in May 1626, and eighteen months
later claimed that his work was done.¹ In fact, this was but the beginning of
a long struggle with the inhabitants. By 1629, when the land promised him
in payment for his work was being surveyed, the bitter war between them
was well under way. The Exchequer commissioners, visiting Axholme in
the same year to assess the situation at first hand, met an angry, suspicious
population, who insisted on accompanying them on their inspection of the
drains at Althorpe. “Their claymours,” they said, “were soe great, and they
soe ready to affirme any thinge to serve their owne desires, some compla
ying that they should have too much water, others that they should want water,
some making one doubt, others moving another as wee were satisfied that
wee might not believe any thinge upon their information but what our
owne view did justifie unto us.”² Other accounts of the hostility and active
opposition of the islanders are familiar enough to require no repetition here.
The reasons that lay behind the opposition, however, are little known and
deserve a hearing.

In the first place, the tenants were convinced that the king had no power
to dispose of their common, since it had been granted to them, exempt from
all improvement, by the former owner of the estate, Sir John Mowbray, in
1359. In the second place, the tenants claimed, correctly, that the flood
waters, which deposited silt on the commons in winter, were vitally neces-
sary to their husbandry. As they discovered when Vermuyden had finished
his work, the “thick, fatt water” which had enriched their land became a
“thin, hungry, starveing water,” impoverishing the common and rendering
it unable to support as many stock as before. In the third place, the island-
ers found that part of the common was drained so dry by Vermuyden that
they were unable to get enough water for their cattle in summer. Even the
Exchequer Commissioners admitted that it would have been better had cer-
tain drains not been made, and that the tenants would probably have to let
the Trent into the commons at their own costs for lack of water.³ In the
fourth place, the islanders claimed that some of the land which had hitherto
lain dry during the summer was flooded for the first time owing to Vermuy-
den’s interference. No precise evidence was given to the commissioners on

¹ L. E. Harris, Vermuyden and the Fens, 1953, pp. 47, 49.
² PRO E 178, 5412.
³ PRO E 134, 1 & 2 Jas. II, Hilary 25; E 178, 5430.
this point, and since there was a difference of opinion among the witnesses, the commissioners paid little attention to it. But engineers who have examin-
ed the technical aspect of Vermuyden's operations have accepted the charges
as true, and have blamed Vermuyden for failing to construct a wide enough
channel to carry away waters previously diverted into three courses. In his
own lifetime, the belief that Vermuyden had made things worse than before
clung to him, and prompted at least one joke at his expense.

"Banausus. I have a rare device to set Dutch windmills
Upon New-market Heath, and Salisbury Plaine,
To drain the Fens.

Colax. The Fens Sir are not there.

Banausus. But who knowes but they may be?"

In the fifth place, the inhabitants who had rights of fishing and fowling
in the waste lost an important source of income by the drainage. The copy-
holders' fishing rights in Crowle manor alone were valued at £300 a year in
1650, without counting their value to the poor who also relied on fish and fowl
for their food. In the sixth place, the river Idle, on which the inhabitants had
been accustomed to transport goods, was stopped up and ceased to be navig-
able. Lastly, and most important of all, the commons were reduced to
between a half and a third their former size. The fourteen thousand acres
belonging to Epworth manor were reduced to 5,960 acres, and Crowle
common of between three and four thousand acres was reduced to 1,814
acres. Since Vermuyden's drainage project had been loudly proclaimed as
a measure for making the fen more profitable than ever before, the islanders
did not expect to have to reduce the numbers of their stock. Yet this was the
almost unavoidable consequence when more than half the commons was
taken from them, and the remainder reduced in fertility. The only alterna-
tives were for the inhabitants to lease additional grazing in Yorkshire, or pas-
ture their stock on land formerly kept as meadow, which meant a smaller hay
harvest and less fodder for winter feed.

3 PRO E 178, 5444; E 134, 1 & 2 Jas. II, Hilary 25; E 178, 5412. Eventually the copy-
holders with fishing rights were compensated with 123 acres of land, called Fishers' Close.
4 According to the original agreement with Vermuyden, the drained common was to be
divided into three equal parts. One-third was to be given to Vermuyden, one-third to the
Crown, and one-third to the inhabitants. In fact the commoners receiver nearer a half than a
third.
5 PRO E 178, 5430, 5444; E 134, 1 & 2 Jas. II, Hilary 25. To help matters, the remaining
commons were divided among the townships in 1631.
Farming in the Isle of Axholme was not an exact repetition of farming in the fenland of Holland. Fewer cattle and sheep were reared, and more land was given over to crops, particularly wheat, rye, and hemp. The probate inventories also suggest that Axholme was not as wealthy a region as Holland. At the same time it is clear that the peasants of Axholme had evolved a perfectly satisfactory and profitable farming routine. Their husbandry was adapted to the natural conditions, they turned the seasonal floods to good account, and regarded them as a benefit, not a waste of their land. They had good reason, therefore, to defend their traditional way of life. The Dutchmen disturbed their routine, and ultimately transformed it out of recognition. They drained the land, made mistakes, altered the topography of the island and with it the customary farming arrangements, and then took more than half the land for their trouble. Dugdale wrote with admiration of the rape and corn which was sown in the fen after the drainage. What he did not appreciate was that the islanders did not need rape, and that they already had sufficient land for their corn. What they wanted in the fen was what they already had—grazing.

The charge that the islanders were stubborn and ignorant in opposing the drainage of the fens was made at the time, and is still current. It was a charge that ought with justice to have been made against Crown and Parliament, for they were utterly ignorant of conditions in Axholme before the drainage. Small wonder, indeed, that the islanders answered Parliament's demand for obedience in 1650 by saying it was "a Parliament of Clouts," and "they could make as good a Parliament themselves."

The drainage schemes of the seventeenth century changed the course of farming history in the fenland, and finally made it the richest arable region of Lincolnshire. But in his lifetime Vermuyden did nothing to prove his contention that the drained fen of Axholme could be made more profitable than the undrained. He proved only that it could be put to a different use.

1 Dugdale, op. cit., p. 147.
Agricultural Returns
and the Government during the
Napoleonic Wars

By W. E. MINCHINTON

In the course of the second half of the eighteenth century Great Britain virtually ceased to be self-sufficient in grain, and imports were required to supplement home production. The situation in agriculture became more acute in the last twelve years of the century and there was much discussion of the problem of food supplies. Already, with the rapid growth of population, the demands of the home market had become more pressing, and the stage was set for the Malthusian dragon to make his appearance. The scanty crop of 1789 and the poor harvest of 1790 evoked an outburst of pamphleteering and an agitation for greater protection for agriculture. Although these demands were opposed by the commercial and industrial centres, the agricultural interests had their way and a new corn law in 1791 increased the price at which the free import of grain was permitted. This was the immediate reaction to the problem. But the decade which followed was distinguished by an unusual number of bad harvests and it saw Great Britain involved in war. As a result, the clause which enabled the act of 1791 to be modified in case of need was employed every year from 1793 to 1801.

The poor harvest of 1792 forced the government to prohibit the export of grain. Two years later the harvest failed again, the following winter was wet and cold and the crop of 1795 was meagre in consequence. Wheat, which had averaged 43s. a quarter in 1792, 49s. 3d. in 1793, and 52s. 3d. in 1794, rose to 108s. 4d. in August 1795, an increase of 50s. in eight months. As prices rose, unrest spread through the country. In May, for example, “an unlawful assembly of colliers met on Rodway Hill (near Bristol) on account of the dearness of provisions” and had to be dispersed by troops.¹ And similar meetings, some of which led to rioting, took place in other parts of England and Wales.² In the same month, the magistrates of Speenhamland in Berkshire drew up a scale of assistance for agricultural workers, based on the price of bread and the size of the family, which came to be widely adopted. At the same time the government was besieged with appeals for assistance,

¹ PRO H.O. 42, 34, f. 136.
whose general burden was "an immediate supply of wheat is absolutely neces-
1 sary." It endeavoured to meet these demands "by sending supplies of for-
2 eign corn . . . to the different ports of this kingdom where the need is most felt." In July, a ship laden with 500 quarters of wheat was ordered to pro-
ceed to Chepstow to supply the Forest of Dean. And similar cargoes were sent to other ports.

But though such action might mitigate, it could not entirely counteract, the effect of the bad harvest. Prices continued to rise and disaffection to spread. In October the carriage of the king was attacked as he was on his way to open parliament. Immediately the government provided time for a debate on the high cost of provisions. In the course of it, on the 3rd of November, William Pitt announced that "he wanted to lay the foundation of a permanent enquiry . . . (and) he hoped that the measure to be proceeded with on this occasion would be facilitated by the steps which the govern-
ment had already taken." The House then set up a select committee "to enquire into the circumstance of the present scarcity and the best means of remedying it," a move opposed by Arthur Young, who argued "whatever the price of corn, they will have a tendency to raise it." But he would have approved of "the steps which the government had already taken" to set in train a nation-wide enquiry into the state of the harvest.

There had long been a demand for the collection and publication of accurate, statistical information about agricultural matters, about crops and yields and prices. As early as 1676 John Graunt had urged that details about arable crops and livestock should be obtained so that measures could be taken to supply any want if crops failed. But apart from estimates like those of Gregory King and the prices published in Houghton's Collection

1 See H.O. 42, 34–6 and 43, 6 passim.  
2 H.O. 42, 37, ff. 1–3.  
3 Cobbett's Parliamentary History, xxxii, 1795–7; House of Commons Journal, li, 1798, pp. 19, 58. I owe these references to Dr Joan Thirsk.  
4 Annals of Agriculture, xxv, 1795, p. 450.  
7 Natural and Political Observations and Conclusions upon the State and Condition of England, (1696), Section VII.
of Letters for the Improvement of Husbandry and Trade (1692–1703), little was done till the growing interest in agriculture in the middle of the eighteenth century led to a renewal of demands for information. Both Pennington (1769) and Donaldson (1775) suggested that some organization should be established to maintain a permanent enquiry into the condition of agriculture.1

The want of information was gradually met by the work of commentators, of whom William Marshall and Arthur Young were the chief, and by the Annals of Agriculture, which began publication in 1784. Nine years later, when a Board of Agriculture and Internal Improvement was set up with government support, almost its first action was to arrange for a series of county agricultural reports. Originally Sir John Sinclair proposed to collect the required information by circulating questionnaires to the clergy,2 as he had done for his Statistical Account of Scotland, but this plan had to be abandoned because of the opposition of the archbishop of Canterbury. Fearing such an investigation would lead to action on the tithe question, he threatened to withdraw the support of the Church from Pitt’s government.3 Itinerant surveyors, of varying capability, were appointed instead to carry out the survey.

But it was harvest failure which gave real point to enquiries into agriculture. The bad harvests of 1756 and 1757 led Charles Smith to make his investigation,4 and later harvest failures roused the interest of Arthur Young. In 1788 he called for reports from his correspondents about conditions in their neighbourhoods, and the bad harvest of the following year led him to repeat his request. These reports he published in the Annals of Agriculture. Then, when “apprehensions of a scarcity of provisions” were expressed in the House of Commons early in 1795, Arthur Young sent out the following list of questions which he asked his correspondents to answer.5

I. What is supposed to be the stock of wheat and rye in hand relative to the consumption of the remainder of the year, previous to the next crop coming to market?

II. What are the expectations of the next year’s supply, relative to any deficiency which it is supposed may result from the autumnal rains and the present severe frost?

1 W. Pennington, Reflections on the Various Advantages Resulting from the Draining, Inclosing, and Allotting of Large Commons and Common Fields, p. 47; W. Donaldson, Agriculture Considered as a Moral and Political Duty, p. 172.
2 The suggested form is to be found in Communications to the Board of Agriculture, i, 1797, p. xlii.
3 Lords’ Journal, xlii, p. 402.
4 Tracts on the Corn Trade (1766).
III. What have been the most successful methods adopted for the relief of the poor?

IV. What has been the rise (if any) in the pay of agricultural labour, on comparison with preceding periods?

V. Has any article of food, as a substitute for wheaten bread, been successfully used?

VI. What is the present price per pound of mutton, beef, pork, butter, cheese, and potatoes, regard being paid to such joints of meat as come within the consumption of the poor?

VII. What is the present and ordinary price of coals?

VIII. What has been the effect of the frost on turnips, cabbages, and other articles of green winter-food for cattle and sheep, also on the young wheat?

IX. What is the present price of hay and straw per ton?

X. What is the present or late price of the wool of your country?

An exhaustive enquiry for an individual to carry out. The replies were printed in the Annals of Agriculture.¹

The worsening conditions of 1795 produced a spate of investigation. In June the Board of Agriculture proposed the issue of a questionnaire asking "the landed interest": (i) What number of acres are, by estimation, or from regular survey, contained in your parish, constablewick, tithing, division, or district? and (ii) How many of such acres are arable, how many generally kept under each species of crop, how many in fallow, and how many in grass?² A month later it sent out a statement "on the present scarcity of provision" suggesting "measures to prevent any risk of real want previous to the ensuing harvest." The Board clearly stated that "the collecting of information respecting the agricultural state of the country" was necessary before measures could be recommended to parliament.³ "The result of the new crops being uncertain" in October, Arthur Young again circularized his correspondents in terms similar to those of January 1795, with the significant addition of the following question.⁴ "It having been recommended by various quarter-sessions, that the price of labour should be regulated by that of bread corn, have the goodness to state what you conceive to be the advantages or disadvantages of such a system." Speenhamland was already under scrutiny.

Other enquiries were also on foot. The Rev. David Davies was gathering material for his statement of The Case of Labourers in Husbandry, Sir Frederic Eden was stimulated by these conditions to begin his examination

¹ Ibid., xxiv. ² Ibid., xxiv, p. 567. ³ Ibid., xxiv, pp. 579–81. ⁴ Ibid., xxv, 1795, pp. 344–5.
of *The State of the Poor*, and Malthus was turning his mind to a different aspect of the same problem, the pressure of a growing population on food resources. Already the last decade of the eighteenth century was dimly perceiving, what the nineteenth had to learn through painful experience, that effective remedial measures for social problems can only be taken when enquiry has revealed, preferably in statistical form, the dimensions of the question. And war provided, as it has continued to do, the opportunity for the government to embark on a statistical investigation. The ground had been prepared by the work of individuals, the failure of the harvest in 1795 provided the occasion for a government enquiry.

II

Late in October, the Secretary of State for Home Affairs, the duke of Portland, sent a letter to the lords lieutenant of the counties asking them "to procure an account of the produce of the several articles of grain... comparing the same with the produce of a fair crop of every such article of grain in common years and with the produce of the crop of 1794 of every such article of grain... and to report such account as early as possible."¹ Within the counties, the information was to be collected by the justices of the peace and the high constables of the hundreds. The government was now to learn by experience of the problems involved in carrying out such an enterprise.

First, this task was not universally welcomed. The lord lieutenant of Berkshire, the earl of Radnor, voiced the scepticism of some. Writing to the duke of Portland, he confessed himself "at a loss to imagine by what means the Magistrates of the County of Berks can be competent to obtain such information... the comparative statement... will necessarily, I conceive, be little more than Guess work."² And, second, as the returns proceeded to demonstrate, "an account of the produce of the late crop" was not a phrase devoid of ambiguity.³ Some returns gave the yield in bushels per acre, some in total acreage under the various crops, while yet others gave only a verbal statement such as: "Wheat, not so good this year as last, Barley, better than last year, Oats, a middling crop, not so good as former years, Beans, a pretty fair crop, about on an average."⁴ Some gave the information by parishes,

¹ H.O. 42, 36-7. ² H.O. 42, 36, f. 244.
³ Some of these returns are to be found in H.O. 42, 37. Additional Gloucestershire returns are to be found in the Shire Hall, Gloucester, and some Leicestershire returns (for information about which I am indebted to Dr W. G. Hoskins and Dr Joan Thirsk) in the County Record Office, Leicester. No doubt other returns will be found in other local collections.
⁴ The return for Hinton, Gloucestershire.—H.O. 42, 37, f. 138.
some consolidated them by hundreds, while others stated the details of individual holdings. An extract from a parish in the last category, Quedgely (Gloucestershire), reads as follows.

<table>
<thead>
<tr>
<th>Occupier</th>
<th>WHEAT</th>
<th>BARLEY</th>
<th>BEANS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Acres</td>
<td>Yield per acre (bushels)</td>
<td>Total Produce (bushels)</td>
</tr>
<tr>
<td>Chas. Hayward Esq.</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Mr Jno. Beach</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>1794</td>
<td>23</td>
<td>14</td>
<td>322</td>
</tr>
<tr>
<td>1795</td>
<td>20</td>
<td>15</td>
<td>300</td>
</tr>
<tr>
<td>John Bailey</td>
<td>28</td>
<td>10</td>
<td>280</td>
</tr>
<tr>
<td>1794</td>
<td>27</td>
<td>12</td>
<td>324</td>
</tr>
<tr>
<td>1795</td>
<td>7</td>
<td>15</td>
<td>38</td>
</tr>
<tr>
<td>Ann Miles</td>
<td>4</td>
<td>15</td>
<td>60</td>
</tr>
<tr>
<td>1794</td>
<td>1</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>1795</td>
<td>1</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

1 No tillage. 2 Not in the Hundred.

Thus the returns varied in the information they contained, varied in format—only in Warwickshire does a printed form appear to have been issued—and lacked a common standard of comparison. Nor could their accuracy be guaranteed. As the magistrates of one district reported, "We had hoped to convey an accurate account . . . (but we are) disappointed by the Jealousy and miserable Policy of the Farmers and others who in order to conceal, from the Government and from the Landlords, the real state of their Produce have to our full Conviction in many instances estimated their several Crops not less than one-third below the actual amount." 2

Although they were for the most part collected expeditiously, it was not till the Third Report of the Select Committee that the returns received mention. In their First Report they stated that "the crop of the other sorts of grain has been on the whole abundant but the produce of wheat has proved so far deficient as to require the adoption of the speediest and most effectual measures for the alleviation of so great an evil." And the returns generally, as the following table based on the returns for a single county—Gloucestershire—shows, confirmed that the main failure in both 1794 and 1795 was the wheat crop. In both years the best yield of wheat fell considerably short of the best average yield.

1 Shire Hall, Gloucester. Some of the Leicestershire returns (County Record Office, Leicester) also give information about individual holdings.
2 H.O. 42, 37, f. 28. Hundred of Lonsdale South of the Sands (Lancashire).
3 Cited in Annals of Agriculture.
The Yields of 1794 and 1795 compared with the Average Yield¹

<table>
<thead>
<tr>
<th></th>
<th>Wheat</th>
<th>Barley</th>
<th>Oats</th>
<th>Beans</th>
<th>Peas</th>
</tr>
</thead>
<tbody>
<tr>
<td>1794</td>
<td>7-18</td>
<td>5-24</td>
<td>2-24</td>
<td>1-15</td>
<td>1½-2½</td>
</tr>
<tr>
<td>1795</td>
<td>6-15</td>
<td>11-26</td>
<td>7-24</td>
<td>8-24</td>
<td>10-24</td>
</tr>
<tr>
<td>Average</td>
<td>8-24</td>
<td>14-25</td>
<td>12-24</td>
<td>12-25</td>
<td>8-20</td>
</tr>
</tbody>
</table>

The Second Report was mainly concerned with the shortage of rye. Then, in the Third, the Select Committee reported that they had received “a considerable number of returns, made by the custodes rotulorum of the different counties, respecting the state of the last crop, together with much additional intelligence communicated by many of their members.” But, they continued, we “find it impossible as yet to draw, either from these returns or from any other quarter, a precise conclusion. The returns are so incomplete in their number and founded upon so many different principles ... that it is extremely difficult to combine and compare them, so as to state accurately the result of the whole.”² And with this judgement we must concur. These returns do not provide a satisfactory assessment of the state of English agriculture in 1794–5, though studied in detail by the local or parish historian they may yield information of value.

As the returns failed to provide the government with the information it needed, it was forced to resort to emergency measures. The export of corn was forbidden, the manufacture of hand and hair powder—which, according to one correspondent, accounted for a seventh part of the whole consumption of wheat in the kingdom³—and the use of grain for the malt distillery, “which consumes large quantities of wheat and all barley,” were prohibited. Bounties were given for imported grain, attempts were made to popularize a standard wholemeal bread and to reduce consumption of wheaten bread,⁴ and enclosure and the increased cultivation of arable land were encouraged. A scheme for public granaries was dropped after a fierce attack by Edmund Burke.⁵ The activities of middlemen were discussed and criticized. Of these measures, it was the greatly increased import of grain—879,000 quarters—which brought relief in 1796. With harvests at home improving, the price of wheat fell to 53s. 9d. a quarter in 1797 and 47s. 10d. in 1798, the lowest price since 1792. The question of grain supplies was, for a time, less pressing.

In 1797 and 1798 a more urgent problem confronted the government, the threat of invasion, as with the withdrawal of Austria England stood alone against France. The government made plans for a withdrawal from the coast—a 'scorched-earth policy'—and to this end detailed returns were called for, particularly from those parishes within twelve miles of the sea. In addition to details about the yeomanry, about the wagons and horses available, the number of mills and baking ovens, the lords lieutenant were asked to make a return of live and dead stock. Early in 1798 the Home Secretary suggested that a form drawn up by the county of Dorset should be generally adopted for this purpose. This provided space for the number of livestock (horses, cows, sheep, deer, and pigs) and the number of acres under crops (wheat, barley, oats, beans, pease, rye, buckwheat, vetches, hemp, flax, potatoes, and hay) to be entered.

Although the lieutenancy records for all counties are not available, these returns are known to exist for Essex, Sussex, Dorset, and for a few parishes in south Gloucestershire. For some parishes, as for Kidford (Sussex), the stock lists of individual farmers survive. Similar returns were called for in 1801 and 1803, so that in some cases a comparison is possible. This has been done by G. H. Kenyon for Sussex for the two years 1798 and 1801 as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Cattle</th>
<th>Sheep</th>
<th>Pigs</th>
<th>Horses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1798</td>
<td>60,885</td>
<td>549,991</td>
<td>18,414</td>
<td></td>
</tr>
<tr>
<td>1801</td>
<td>62,047</td>
<td>346,589</td>
<td>63,094</td>
<td>22,620</td>
</tr>
</tbody>
</table>

Further examination of these returns, a by-product of the government's concern for defence, may well amplify our knowledge of both the general livestock position and the holdings of individual farmers in England at the end of the eighteenth century.

2 H.O. 42, 39.
5 H.O. 42, 39.
6 In the parish chest, Bitton, Gloucestershire. I am indebted to Miss E. Ralph for this information.
7 The returns for 1801 exist for Sussex; those for 1803 for Essex, Sussex, and Somerset (Robertson-Glasgow Collection).
The summer of 1799 was wet and the harvest failure of that year forced the government to reimpose the restrictions on the use of grain and to renew the bounties on imports which rose slightly to 463,185 quarters in that year. Despite these measures the price of wheat rose, unrest became widespread during the cold wet winter, and the government was forced to extend the emergency provisions. Nevertheless a proposal in March 1800 that the Lords should set up a committee to examine the evidence as to the "Deficiency of the last Year’s Crop of Wheat, the Stock in Hand at the time of the Harvest, and the supply now remaining in the Country" was defeated as favourable reports about the forthcoming harvest began to come in. Meanwhile the price of wheat continued to rise, reaching 134s. 5d. in June 1800, and less optimistic forecasts were made about harvest prospects. An analysis of the replies to a circular letter sent out by the Board of Agriculture showed that "the produce of the wheat harvest in the whole country will be considerably under the average crop." The price of wheat remained high and there were reports of unrest and incendiaryism (either actual or intended) from many parts of the country.

In these conditions of shortage, something like panic swept the country. As W. F. Galpin has written, "Impressed by the idea of his own self-sufficiency, the Englishman became visibly excited whenever self-sufficiency was threatened. On every hand he saw visions of impending famine." To allay these fears, while pamphleteers were active in diagnosis, the government made frantic attempts to obtain accurate information about the state of the harvest. The duke of Portland asked the bishops to secure answers to the following four questions:

1. What has been the produce of the late Crop in your district and county, so far as you have means of information, comparative with former crops, or if you can state it, what is the estimated number of Bushels per Acre, distinguishing Wheat, Barley, Oats, and Potatoes and also stating the comparative Crops of Hay, Beans, and Turnips?

2. What is the Price in your Market Town of Wheat, Barley, Oats, Potatoes, Hay, and Beans, and Mutton and Beef in the month of October 1800 comparatively with the same period in 1799 and 1798?

---

1 Lords’ Journal, XLII, p. 402.
5 H.O. 42, 52.
"3. Has the produce of the late Harvest been consumed? Is there any reason to believe that there is any considerable quantity of old wheat in store?

"4. Has much foreign Wheat or Flour been brought into your part of the Country? Is there much use made of Rice, Barley or Oats as Substitutes?"¹

These questions were sent by the bishops—in some cases on printed forms—to such clergymen as appeared to them to be best qualified. The returns, completed with varying degrees of diligence, were collected by the bishops and sent by them to the Home Secretary.²

In the same months the Lords' Committee on the Dearth of Provisions called for reports "from respectable and well-informed persons" about the harvest.³ These are to be found, consolidated by counties, as an appendix to the Second Report of the committee. The Warwickshire summary indicates the form in which the material is available:⁴

<table>
<thead>
<tr>
<th>Crop</th>
<th>Average Crop, as stated by the Evidence</th>
<th>Proportion of an Average Crop at the late Harvest, as stated by the Evidence.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat</td>
<td>2 Q 4 B 2 Q 5</td>
<td>2-ths — 3-5ths — 2-3ds</td>
</tr>
<tr>
<td>Barley</td>
<td>3 Q 4 B 2 Q 0</td>
<td>2-3ds — 3-5ths — 13-18ths</td>
</tr>
<tr>
<td>Oats</td>
<td>5 Q 0 B 5 Q 2</td>
<td>3-4ths — Average — 11-18ths</td>
</tr>
<tr>
<td>Rye</td>
<td>3 Q 0 B</td>
<td>2-ths — Average</td>
</tr>
<tr>
<td>Pease</td>
<td>2 Q 2 B 2 Q 5</td>
<td>2-3ds — Average</td>
</tr>
<tr>
<td>Beans</td>
<td>2 Q 4 B</td>
<td>2-3ds — Average</td>
</tr>
<tr>
<td>Potatoes</td>
<td>150 bushels</td>
<td>2-ths — Nearly Average</td>
</tr>
</tbody>
</table>

"The Consumption of the New Crop began as soon as possible after the Harvest was in, and much of it was threshed out for immediate Use, the Stock of Old Corn being, comparatively speaking, none (the Case in most of the Midland Counties); in general there used to be enough to carry on the County for three Months. Land sown with Wheat in 1799, 1800—not so much, on account of the Badness of the Season."

The Board of Trade⁵ and the Board of Taxes⁶ made similar investiga-

¹ The appendix to the Second Report of the Commons' Committee on the Scarcity of Corn was devoted to "Modes of preparing Rice."
² They exist for almost all the dioceses of England and Wales in H.O. 42, 52–55.
AGRICULTURAL RETURNS DURING THE NAPOLEONIC WARS

In the autumn of 1800, thus not one but several enquiries were on foot at the same time. Rarely in the history of English agriculture can there have been so fevered an attempt to find out the facts.

All this material appears to have been made available to the Commons' Committee on the High Price of Provisions. In their First Report, dated 24 November 1800, they stated: 1

"Having many documents before them, which could be examined without much delay, and which, checked by the very extensive information of members from different parts of the country, appeared likely to enable them to form a general estimate of the crop, your Committee have thought it right to avail themselves of those materials for that purpose. These documents consist of very numerous returns to those enquiries which different departments of Government have directed to be made, by the receivers of the land tax, by the various officers employed under the boards of taxes, stamps, and excise, and by those amongst the clergy to whom circular letters for that purpose had been addressed by the bishops in each diocese. Though the returns are not complete from every county, yet the omissions upon the whole are neither numerous nor important."

When they had made their examination of the whole of this information, the Committee reported there was "reason to believe that the general deficiency of the crop of Wheat in England and Wales, below an average crop, does not amount to quite so much as one-fourth." They also commented on the harvest of the other crops, but the wheat harvest was the crucial crop. Wheat prices had fallen from their peak of June to 114s. 5d. in October, but when the facts about the harvest became known they rose again. Although imports reached a record figure of 1,264,520 quarters in 1800, the price of wheat had risen to 137s. a quarter by the end of December. The committee had seen "no ground for believing that any result attainable by the most detailed enquiry, could lead to any practicable conclusion, applicable to the present emergency." Its remedy for the situation was economy in the use of grain.

As prices continued to rise in 1801—to a peak of 154s. 8d. in April—further proposals were put forward—that the growing of potatoes should be encouraged, that those in extreme and peculiar distress should be helped financially, and that increased efforts should be made to secure foreign grain. The improvement of agriculture was also urged, and the passage of the General Enclosure Act was a result of a recommendation of a Lords' Committee in May.

1 Parliamentary History, xxxv, col. 778. I am indebted to Dr R. A. Pelham for this reference.
Despite the apparently small use it had hitherto made of the agricultural returns, the government continued its quest for accurate statistical information about the condition of agriculture. In the words of Lord Pelham "it occurred to His Majesty's Confidential Servants that if they could be furnished with an annual return of the number of acres under Tillage it would be a circumstance highly beneficial to the Public Interests, as it would form the best criterion whereby to judge of the effects which the provisions of Parliament, both in regard to inclosures and other matters, produce on the Agriculture of the County."  

Accordingly in the summer of 1801 printed forms were distributed by the Home Office to the bishops and by them to incumbents in England and Wales. The clergy were asked to state the acreage sown since last year's harvest with wheat, barley, oats, potatoes, beans, peas, turnips (with rye, vetches, or dill sometimes entered in addition). A space was provided for General Remarks. The completed returns were sent to the Home Secretary. Only one diocese, Peterborough, is completely unrepresented, though returns are meagre for a number of counties (Devon, Dorset, Nottingham, Norfolk, Oxford, Suffolk, and Westmoreland). These returns were sent for comment to the Board of Agriculture, which reported that "as far as the Members present can ascertain by their personal knowledge of particular Parishes, they are so extremely erroneous that they cannot safely be at all relied on in forming any general conclusions respecting the quantities of Land sown with any species of Grain." And with this somewhat harsh and hasty judgement the returns were laid aside to be ignored for more than a century.

Of recent years, the 1801 acreage returns have been re-examined, and the published results suggest that if they were regarded as inadequate by some contemporaries they are nevertheless of some value to the historian.

1 Home Office Domestic Entry Book (H.O. 43, 13, pp. 285-6).  
2 H.O. 67.  
4 Minute Book of the Board of Agriculture (R.A.S.E.), pp. 310-11 (15 April 1802).  
These studies are generally agreed that the returns of 1801 err on the side of understatement as far as the figures of actual acreage are concerned but that the information they contain about the distribution of crops, about yields and courses of husbandry, should not be ignored. They tend to show that many of the commentators underestimated the acreage under turnips and were sometimes unduly biased in favour of enclosure as a means of improvement. P. A. Churley writes that for part of Yorkshire "open field parishes... had not lagged too far behind the best contemporary practice and the cropping was quite different from the traditional open-field pattern." In addition to the information about crop acreages, the returns often contain some analysis of the causes of the present discontents—high prices, the profiteering of middlemen, paper currency, and restrictive covenants. Some incumbents, particularly in Wales, give information about the advance of industrialism, others criticized "the iniquitous system of the monopolizing of lands by our rich farmers," and yet others, echoing Arthur Young, urged enclosure and the cultivation of the waste. Finally, some of the returns include comment about other matters, such as tithes and poor relief. Thus the 1801 returns provide both statistical information and a commentary on rural life, as viewed through the eyes of the local parson.

Since the enquiries of 1795, 1800, and 1801 did not require the same categories of information to be obtained, direct comparison is not generally possible between them. But in some instances acreage returns are available for several years. Dr Joan Thirsk has drawn on the Leicestershire returns for 1794–5 (which also include estimates for 1793) and 1801 for her discussion of Leicestershire agriculture in a forthcoming volume of the Victoria County History, and the table which follows is taken from that account. The arable acreage in the Guthlaxton hundred of Leicestershire increased considerably between 1793 and 1801 and an examination of the returns for some other Leicestershire hundreds yielded a similar result.


2 I am indebted to the Editor of V.C.H. Leicestershire and to Dr Joan Thirsk for permission to print this table.
Table showing crop acreages in Leicestershire between 1793 and 1801
(Guthlaxton Hundred: Totals for 9 parishes)

<table>
<thead>
<tr>
<th>Year</th>
<th>Wheat</th>
<th>Barley</th>
<th>Oats</th>
<th>Beans</th>
<th>Peas</th>
<th>Rye</th>
<th>Turnips</th>
<th>Potatoes</th>
<th>Maslin</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1793</td>
<td>459</td>
<td>534</td>
<td>403</td>
<td>125$\frac{1}{2}$</td>
<td>120</td>
<td>34</td>
<td>45</td>
<td>2</td>
<td>2</td>
<td>1523$\frac{1}{2}$</td>
</tr>
<tr>
<td>1794</td>
<td>518</td>
<td>566$\frac{1}{2}$</td>
<td>503</td>
<td>129$\frac{1}{2}$</td>
<td>34</td>
<td>3</td>
<td>45</td>
<td>2</td>
<td>2$\frac{1}{2}$</td>
<td>1273</td>
</tr>
<tr>
<td>1795</td>
<td>558</td>
<td>586</td>
<td>517</td>
<td>165</td>
<td>44</td>
<td>11</td>
<td>45</td>
<td>36</td>
<td>36</td>
<td>1877$\frac{1}{2}$</td>
</tr>
<tr>
<td>1801</td>
<td>705$\frac{1}{2}$</td>
<td>818</td>
<td>749$\frac{1}{2}$</td>
<td>24</td>
<td>40$\frac{1}{2}$</td>
<td>5</td>
<td>445</td>
<td>26$\frac{1}{2}$</td>
<td>4</td>
<td>2814$\frac{3}{4}$</td>
</tr>
</tbody>
</table>

A comparison of the Gloucestershire returns (for 1794, 1795, 1801, and the acreage of the common years) for the fifteen parishes for which this was possible was much less conclusive. In only six was cultivation expanded appreciably in this decade. For other counties such an examination may yield different results. If such figures are accurate, they may provide a statistical statement of the extension of cultivation under the stimulus of high prices during the Napoleonic Wars. In this and other ways the arable returns of 1794, 1795, 1800, and 1801, and the livestock returns of 1798, 1801, and 1803, can provide a useful supplement to the other accounts of English agriculture available for these years. Particularly where returns for individual farmers for both arable acreage and livestock exist, it should be possible to get behind the generalization of the surveys and so show the detail and diversity of English farming in the late eighteenth century.

Thus the 1801 returns were not the first attempt in this country to obtain agricultural statistics on a national scale but the latest of a series of attempts, on which in two important respects, they are, for all their defects, an advance. First, as the detailed evidence produced earlier shows, the 1801 enquiry was more limited in scope than the previous surveys, and the information required for a single year was defined more precisely. From the elaborate questionnaires of Arthur Young the range was narrowed to a specific and limited set of questions. As the vicar of Hatton (Warwickshire) remarked in 1801: "The foregoing Questions seem to me more judicious, and more inoffensive, more easy to be answered with precision, and far more likely to be answered with fidelity, than those which were sent last year." And to ensure that the material was presented in 1801 in a comparable manner, printed forms were distributed, as had been done in a few cases of local initia-

Agricultural returns during the Napoleonic Wars 43
tive for the earlier returns. Secondly, the ecclesiastical machinery of collection, as suggested by Sir John Sinclair in 1793, was used and forms were sent to all incumbents and not merely to those best suited, as in 1800. Although his interest in tithes may have made him the object of suspicion, the parson, as an educated man, apparently proved better qualified for this task than either the receiver of taxes or the magistrate. Neither these nor the previous returns were used, as far as is known, as the basis for government policy.

There were suggestions in 1801 that a regular annual return of the number of acres under tillage should be made parish by parish by the overseers of the poor or the assessors of “the Land or other King’s Taxes”, but no further action appears to have been taken. Bad harvests provided the spur for both private and governmental enquiry and the period of pressing scarcity was past. The years from 1795 to 1801 show the government, lacking paid civil servants in the localities, endeavouring to find the best machinery for the collection of information about the food supplies of a country at war. This has been a neglected strand in the study of the history of England during this period. In the past historians have used the reports on agricultural conditions available in Home Office Papers and elsewhere to document the literature of social protests. But it is also possible, without ignoring the picture they have presented, to use this material for other purposes. From it can be gained a clearer picture of the conduct of agriculture in England and Wales at the end of the eighteenth century, of the attempts to collect accurate statistical information to be used as a basis for policy to meet pressing social, economic, and military questions, and of the administrative problems and difficulties in the way.

1 For Warwickshire in 1795, for Dorset in 1798, and for the diocese of Chester in 1800.
A Cornish Farmer in Ontario 1830–71

By JOHN ROWE

The following letter by Charles Julyan, who had lived at Penpoll near Truro, written from Edgewater Farm, Sarawak, Grey County, Ontario, dated 7 May 1872, was printed in the *West Briton* (Truro) on 27 June 1872.

"If any farmers from Cornwall contemplate emigration, I hope nothing will induce them to go to the Western States (Kansas, Colorado, Nevada, and Nebraska), or they will certainly be sorry for it, and perhaps not have sufficient means to come to Canada afterwards. The best place is undoubtedly our North-West territory, to which a road has been opened through Canadian territory, though at present the best way of reaching that country is by railway from Toronto to Collingwood, and by steamer from thence to Duluth, then by rail to Red River, thence by team to Fort Garry. If they have sufficient means, they may purchase a cleared farm and buildings from one of the French half-breeds, or buy a 160 acre lot, at one dollar per acre, from government. The country is not yet fully surveyed, so that, though they may select their land where they please, they must take their chance of the surveyors running their lines through it. However, that difficulty will be pretty well got over during the present season, as fifty surveying parties will commence operations as early as the season will permit, and not only Manitoba, but a hundred townships outside the limits of that province will probably be surveyed during the present year. I cannot altogether recommend our free land grants; the soil is generally good, and wheat, in favourable seasons, will ripen, but they must be exposed to late spring and early fall frosts, which prove very unfavourable to the poor settler, whose main dependence for the first year or two must be on the root crop. They are well adapted for stock and dairy farming, but this requires more capital than most immigrants have to spare, and those who have capital will find cleared farms for sale all over the province, where they will have the advantage of good roads, and proximity to markets, churches, and schools.

"I may here remark that our schools are all free, and our common school system about the best in existence anywhere. I see no mention in your paper of cheese factories, although that system has been introduced into the best cheese-producing districts in England. The factory system is rapidly extending throughout the United States and Canada, but another and more profitable branch of dairy farming has sprung up in the United States, and will probably be introduced into Canada during the present season, viz., preparing condensed milk for exportation, for which orders were last year received by the milk-condensing factories in Massachusetts and New York amounting to ten millions of pounds for China. I have not seen details of the process, but I understand it consists in bringing the milk to the boiling point twice and putting it into air-tight cans. Cannot some of the large farmers in Cornwall try this plan of condensing milk to supply the London market? It does not require so much skilled labour or capital as cheese factories, whilst it is more remunerative.

"If any of my old neighbours in Kea had found their way here last September they would have been surprised to see my vines loaded with fine grapes, and apple and pear trees, both dwarf and standard, covered with fruit. This part of the country is about the extreme northern limit of the vine, although most farmers have one or two in their gardens, but the southern part of this province is well adapted to the cultivation of the grape, and several vineyards have been planted and large quantities of grapes raised and manufactured into wine.

"It excites a smile now to think of the slow
A CORNISH FARMER IN ONTARIO

way in which we used to reap our wheat—four hands to cut an acre a day, whilst here men will cradle from two to four acres of wheat per day, and this is but slow work when compared with the reaping machines, which are now generally used in old settled townships where the land is sufficiently clear of obstructions to admit of their being used; and as for threshing, we never hear the old English farmer's music of two flails and a cuckoo, as we have no cuckoos in this country, and flails are only used by new settlers in the bush, who have not sufficient crop to make it worth while to hire a threshing machine. These useful machines are now kept by men who travel round the country threshing for the farmers. The best are driven around by ten horse power; the owner of the machine brings four horses, most farmers have two, and then we help each other with horses and men, so that the actual cash outlay is not much. Those large farmers who have a hundred acres or more of wheat generally thresh in the field, when the grain is taken to the granary, and the straw stacked on the spot till winter, which saves barn room, as it is only new settlers, who cannot afford to build a barn at once, that ever stack their grain out of doors, or hay either, if they can help it.

"I was sorry to find by the reports in your paper that farmers to the west of Truro do not seem to have made much progress. A farmers' club ought to be formed in every parish and an agricultural college, with an experimental farm attached, in every county. Our times are progressive, and unless farmers exert themselves, they will be left hopelessly in the rear, and if the large landowners are alive to their own interest, they will give every possible assistance to encourage their tenants to adopt those improvements which tend to increase the produce of their farms, and to promote this object a purely agricultural paper should be established in every county. We have three agricultural papers published monthly in this province, and some of the best American agricultural papers circulate largely among us. There is some difference between the great Durham oxen which may be found in this part of the country, weighing from eighteen hundred to two thousand pounds each, and sometimes more, and the comparative pygmies formerly, if not still, used in Cornwall. I may still further state that our Provincial Government has formed a college of technology in Toronto, and appropriated a sum of money for an agricultural college and an experimental farm.

"I hope, however, that our Cornish girls have not generally deteriorated since I left home, nearly forty-two years ago. Taking them on the whole as they were then, both mentally and physically, I can safely assert that I have since met with few to equal, and none to excel them."

Charles Julyan, the writer of this letter, had emigrated from Kea parish in the early thirties of the last century, when agricultural depression led to a considerable exodus of Cornish farmers to Canada and elsewhere. In 1872, an old man, he was still interested in his home county, but obviously believed that British North America offered greater opportunities to the enterprising agriculturalist who had a small capital to back him. Yet it does not seem that he received newspapers from home often enough to make him aware of the many changes that had taken place in the "old country" since he emigrated. His remarks on the farming of his youthful days are interesting, albeit the reference to "two flails and a cuckoo" is puzzling. It is probably a local term of the district between Truro and Falmouth which died out when the flail itself—often called the threshel in West Cornwall—fell into disuse. It may have meant a riddle or a fan, which were also used in threshing, or it may have been a description of the flail itself which in other parts of the West Country was called "two sticks and a thong." Or was it a back-handed slap at those midnight farmers who were still threshing when the cuckoo came again? The tone of certain other remarks made by Julyan suggests that it might well have been.
The references to Canadian agriculture in the early seventies are of interest, but it might be pointed out that long before Julyan emigrated—perhaps even before he was born—the engineer Richard Trevithick had devised steam threshing gear which worked on three Cornish estates. No one followed up this method for many years, although in 1844 Michael Harris of St Agnes, within a dozen miles of Kea, was going the rounds of farms in that vicinity with a portable threshing machine, worked by a single pony, which could thresh a thousand sheaves of wheat in an eight-hour day. The unfavourable contrast between the performance of Cornish reapers in 1830 and those in Canada in 1872 might not have been made had Julyan written some two years later. For on 2 September 1874 the Cornish Telegraph (Penzance) reported that “Mr Israel Vingoe of St Just (in Penwith), now over 87 years of age, has this harvest season, mowed five acres of corn. At Hendra farm he mowed an acre and half in twelve hours.” In point of fact, however, Julyan seems to have alluded to the performance of reapers rather than to that of mowers, for it seems that the scythe was not at all widely used in the corn fields of Cornwall until a later date than that of his departure to Ontario; then, too, it was quite rapidly superseded by the mowing machine.

Coming from Kea, the great plum-growing parish of Cornwall, Julyan was naturally interested in fruit-farming, but the remarks on dairy-farming are rather unexpected in 1872. Only after the onset of the great depression some years later was the dairy much stressed at Cornish agricultural meetings and in the local press; cheese-making never assumed a prominent role in Cornish husbandry, although a few farmers in one or two districts may have paid some attention to it. Milk and butter factories, of a co-operative nature, began to appear in the late eighties and early nineties.

In his emphasis on agricultural education Julyan was strikingly ahead of his time. Certainly little was done in Britain, on any considerable scale, until the present century, although there were numerous voices calling in the wilderness. But did Charles Julyan know that an attempt to promote a Cornish agricultural college had foundered for lack of funds as far back as the agricultural depression of the late forties? Soon after the publication of this letter some local papers began special agricultural columns, the items being for the most part culled from British and also, not infrequently, from American farming periodicals. Whether they were read or heeded is, however, quite another matter. It is certain that many, even the majority of Cornish farmers, had little patience with “armchair theorizers”; hard-headedly practical, they paid little attention to writers who tried to teach them their job, and would, had they known it, have jeered at the dismal catalogue of writers from Tusser to Mechi whose attempts at practical farming ended in financial disaster.

The Oriental demand for condensed milk seems like another American ‘tall story’. Time and again local papers of the period filled out space with extracts from American papers giving details of vast wheat farms in California and Minnesota, of huge herds of cattle in Texas and Nebraska, and of various mechanical devices employed in transatlantic farming. Rather later than the time of this letter the dairying methods of American farmers received quite considerable publicity in Cornish papers. Alongside of the most up-to-date mechanical devices, however, a significant contrast was once, possibly deliberately, drawn. True, it may have been considerations of space which precluded a longer extract from the American Dairy Farmer in the Cornish Telegraph of 17 March 1881, but a practical Cornish dairy farmer might have been more interested in the “best modes of butter making that are to found in America” than he was in the “most primitive methods in some of the remote States. In Texas and New Mexico they put the cream in a leather bag which is tied by a long raw-hide rope to the saddle of a horse, which is galloped off with a man on its back. The rider detects by a peculiar sound of the
bounding of the cream bag that butter has come on, when he draws up the bag and canters back home. In another part of the vast country the butter is obtained by packing bottles of cream in boxes and hanging these under waggons. Such methods were unquestionably ingenious, but they left Cornish farmers in the "Old Country" more sceptical about American progress than their relations and friends who had migrated to the other side of the Atlantic.

NOTES AND COMMENTS (continued from page 8)

announces the purchase by the Ministry of Agriculture and Fisheries of the estate of Earl Manvers at Laxton in Nottinghamshire. Laxton is the most complete (though not the only) example of the old open-field system still working at the present day. Its history has been told by C. S. and C. S. Orwin in The Open Fields (O.U.P., 1938), a comprehensive survey of Laxton's economy through eight centuries, which includes, in addition, a sympathetic discussion of the origin and practical advantages of the open-field system. The experience of Laxton farmers, publicized by this book, has, in fact, done much to uproot the prejudices against open-field cultivation which were so firmly implanted in the popular mind by Arthur Young and his disciples.

The history of Laxton is comparatively well documented from Domesday times onwards, but its most valuable and interesting record is a terrier and map prepared for Sir William Courten in 1635, showing all the houses, field strips, enclosures, and roads within the two parishes of Laxton and Kneesall. At that time Laxton supported a population of about a hundred families, of whom ninety occupied holdings ranging from an acre or two up to eighty acres. Since then the meadow has been enclosed, woodland has been cleared, and parts of the open fields in outlying portions of the parish enclosed and turned into compact farms. But the large-scale parliamentary enclosures of the eighteenth and nineteenth centuries left Laxton untouched. It retains to this day its three open fields, its common grazings, and its manorial court.

The area taken over by the Ministry of Agriculture and Fisheries comprises 1,758 acres, of which 750 acres lie in strips distributed among twenty-four farmers. The old three-course rotation—spring corn, fallow, winter corn—is still in operation, and is still governed by the court leet of the manor. The Ministry intends to preserve these ancient farming arrangements as an example of a farming system which once prevailed over most of England, and which, although it has now almost completely disappeared, still works to the satisfaction of Laxton's farmers.
List of Books and Articles on Agricultural History issued between January 1952 and September 1953

By G. E. FUSSELL *

(a) BOOKS


Clark, J. G. D. Prehistoric Europe, the economic basis. Methuen. 1952.


Davies, William. Grassland Development in two Centuries. Grassland Research Station. [1952]


Ellison, W. Marginal Land in Britain. Bles. 1952.


Farmiloe, James Ernest, and Nixseaman, Rosita (eds.). Elizabethan Churchwardens'
LIST OF BOOKS AND ARTICLES

FusSELL, G. E. The farmer’s tools, 1500–1900; the history of British farm implements, tools and machinery before the tractor came. Melrose. 1952.
Hyams, Edward. Soil and Civilisation. Thames and Hudson. 1952.

Mansfield, Wilfred S. The Farmer’s Friend, or wise saws and modern instances, being a collection of country sayings compiled and commented upon by W. S. Mansfield. 2nd ed. Blackie. 1952.
Martelli, George. The Ewolden Enterprise; a story of the second agricultural revolution. Faber. 1952.
Royal Dublin Society. A Bibliography of the Publications of the Royal Dublin Society from its foundation in the year 1731; together with a list of bibliographical material relative to the Society. Royal Dublin Society. 1953.

(b) ARTICLES


Habakkuk, H. J. The Long-term Rate of Interest and the Price of Land in the Seventeenth Century. Ibid.


Innes, J. R. M. Canine Pathology; an historical essay on some pioneer contributions of D. P. Blaine. 1770–1845. Veterinary Medicine (Chicago), vol. 47. 1952.


<table>
<thead>
<tr>
<th>Author</th>
<th>Title</th>
<th>Publication Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miller, Edward</td>
<td>The Tenants of Birling</td>
<td>Proc. of the Soc. of Antiquaries of Newcastle-on-Tyne, 5th Ser., vol. 1, no. 3. 1952</td>
</tr>
<tr>
<td>National Museum of Wales</td>
<td>Farmhouses and Cottages in Wales.</td>
<td>1952</td>
</tr>
<tr>
<td>Nightingale, Michael D.</td>
<td>Ploughing and Field Shape.</td>
<td>Antiquity, no. 105, March, 1953</td>
</tr>
<tr>
<td>Pelham, R. A.</td>
<td>The Agricultural Geography of Warwickshire during the Napoleonic Wars</td>
<td>Birmingham Arch. Soc. Trans. and Proc., vol. 68, 1952</td>
</tr>
<tr>
<td>Postan, M. M.</td>
<td>Glastonbury Estates in the Twelfth Century.</td>
<td>Ibid., no. 3, 1953</td>
</tr>
<tr>
<td>Saltmarsh, John</td>
<td>Economic Prehistory of Europe.</td>
<td>Ibid. vol. V, no. 2, 1952</td>
</tr>
<tr>
<td>Toy, Sidney</td>
<td>The Barn at Ravensbury Park.</td>
<td>Surrey Arch. Collec., vol. LII. 1952</td>
</tr>
<tr>
<td>Watson, Sir J. A. Scott</td>
<td>The Pace of Farming Progress.</td>
<td>Belfast, Queen's Univ. Press. 1952</td>
</tr>
<tr>
<td>Woodcock, Thomas</td>
<td>Haslingden, a topographical history.</td>
<td>Chetham Soc., 3rd Ser. vol. IV. 1952</td>
</tr>
</tbody>
</table>
The British Agricultural History Society

THE SOCIETY'S FIRST CONFERENCE
The inaugural conference of the Society took place at Reading University on Monday, 13 April 1953. It was attended by over a hundred people representing a very wide variety of interests and professions from all over the British Isles.

The provisional committee which had been elected by an exploratory meeting held in London the previous September had prepared a draft constitution which was discussed, amended, and ratified by the general meeting, which then elected the officers and committee for the ensuing year.

The conference was welcomed to Reading by the Vice-Chancellor of the University, Mr J. F. Wolfenden, C.B.E. Sir James Scott Watson, C.B.E., M.C., chief scientific adviser to the Ministry of Agriculture, addressed the conference on 'The Scope of Agricultural History', and Sir Frank Stenton, F.B.A., spoke on 'The Manor in English History'. Later in the day the conference had the opportunity of visiting the University's Museum of English Rural Life.

RURAL SOCIAL HISTORY COURSE
The Society participated in the running of a week's course on Rural Social History with the Association of Agriculture and Westham House, Barford, Warwick, from 8 to 15 August 1953. The course was held at Westham House and was attended by some forty people.

Five of the lectures followed a definite sequence, giving an outline of agricultural history from manorial times to the present day. The remainder dealt with a wide range of subjects related to the general theme. In addition to the lectures visits were made to Warwick, Stratford and its theatre, farms, museums, and other places of historic interest.

The full list of lectures was as follows. Social Life of the English Manor, Lady Stenton; The Elizabethan Farmer, Dr Joan Thirk; The Georgian Period, Philip Styles; Agricultural History in the Nineteenth Century, Andrew W. Ashby; Modern Agricultural History, John Green; Country Speech and Customs, F. H. Grisewood; Landscape in Art, Professor T. Bodkin, Chev. Leg. d'H.; The History of Trees in Britain, J. Q. Williamson, M.B.E.; Shakespeare's England, Captain Frank Owen; The English Landscape Garden, H. F. Clark; Rural Housing at different periods, L. F. Salzman; Country Costume throughout the ages, Mrs P. Risner; The Effect of Witchcraft on Village Life, Miss Christina Hole; Domestic Country Crafts, G. Ewart Evans; The Village and the Church, Victor Bonham-Carter; Farmers' Tools and Implements, J. W. Y. Higgs; Local History Studies, H. F. R. Finberg.

STUDIES IN REGIONAL HISTORY
A joint one-day conference with the Association of Agriculture was held in London on Saturday, 5 December 1953. It was attended by over eighty people. Members of the Association or the Society paid a conference fee of 2s. 6d., but non-members were encouraged to come, the fee for them being 5s.

An introductory paper on 'Regional Farming in England' was given by Dr W. G. Hoskins. This was followed by three short papers devoted to specific regions as follows: 'The Farming Regions of Lincolnshire' by Dr Joan Thirk; 'The Rise of Sheep Farming with the Great Enclosures in North Wales' by Professor Alun Roberts; 'Farming Regions with special reference to Wiltshire' by Dr E. Kerridge. The Chairman of the Conference was Mr Alexander Hay.

THE NEXT ANNUAL CONFERENCE
The annual conference of the Society will be held at University College, Leicester, on 2 April 1954. Details of the conference will be circulated to members later.
CONSTITUTION OF THE SOCIETY

Approved by the First General Meeting of the Society, held at the University of Reading on Monday, 13 April 1953.

1. The Society shall be named The British Agricultural History Society.

2. The object of the Society shall be to promote the study of the history of agriculture and rural economy.

3. Membership of the Society shall be open to all persons interested. Candidates for membership shall be nominated by any member of the Society and all such nominations shall be approved by the Executive Committee.

4. The annual subscription shall be one guinea due on the 1st of February.

5. The business of the Society shall be conducted by its Officers and by the Executive Committee.

6. The Officers of the Society shall consist of a President, Chairman of the Executive, Treasurer, and Secretary. The President, Treasurer, and Secretary shall be elected at the Annual General Meeting. The Chairman of the Executive shall be elected by that committee from among its members.

7. The Executive Committee shall consist of twelve members of the Society elected by the Annual General Meeting with the addition of the Officers and the Editor who shall be ex officio members of the Committee. Five members of the Executive Committee shall form a quorum.

8. The President, Treasurer, and Secretary and one quarter of the ordinary members of the Executive Committee shall retire at each Annual General Meeting. The retiring ordinary members shall not be eligible for immediate re-election.

9. Nominations, with the consent of the nominee, for the offices of President, Treasurer, and Secretary and for the vacancies on the Executive Committee must be received by the Secretary not less than seven days before the Annual General Meeting.

10. The Annual General Meeting shall be held as near as possible to the 1st of February. At least twenty-one and not more than twenty-eight days' notice of the Annual General Meeting shall be sent to members of the Society.

11. The Executive Committee shall appoint the Editor who shall have full discretion concerning the content of publications authorized by the Executive Committee. The Executive Committee in consultation with the Editor may appoint an Editorial Board.

12. No amendments to this Constitution shall be made except by an Annual General Meeting. All proposals for the amendment of the Constitution shall be submitted in the form of a written notice of motion in time to be circulated to the members with the notice of the Annual General Meeting. No amendment shall be made except by the Annual General Meeting and members unable to attend such a meeting may vote by proxy.

13. All profits derived from publications which the Society may issue and all interest arising from investments which the Society may make shall be devoted to the furtherance of the object of the Society as set out in paragraph 2 of this Constitution.
Book Reviews

MARTIN S. BRIGGS, The English Farmhouse.
Batsford, 1953. 242 pp. 21s.

Farmhouses and cottages have attracted a vast sentimental literature in this country, and innumerable beautiful photographs, mostly taken in the height of summer. Few rural subjects have been so much written about, or so copiously illustrated, with so little profit to the serious student. Mr Briggs's book is no exception to this statement. It is attractively written and superbly illustrated with all those clouds and reflections in still water that the house of Batsford does so well; and if this were not a specialist journal and one were an urban-minded reviewer, one might commend it as the ideal Christmas present for some other townsman. But for anyone who is interested in the historical development of the farmhouse the book fails repeatedly to answer the important questions.

It will be sufficient warning, to begin with, to say that the book contains 132 illustrations and not a single plan, except one or two reproduced from early nineteenth-century books on farmhouse design. Moreover, the illustrations themselves warn us that Mr Briggs's notions of a "farmhouse" are remarkably wide. We find the Roman villa at Chedworth (surely a country house if ever there was one), the well-worn photograph of the manor-house at Boothby Pagnell (here wrongly spelt), Ashleworth Court in Gloucestershire, Little Moreton Hall in Cheshire, various 'halls' from Lancashire, and manor houses from several other counties. The author justifies their inclusion on the ground that farming was carried on at all of them, but this is surely to make nonsense of the word "farmhouse".

Where the author indulges in economic history, as he must if he is to explain the origins of certain types of house, the results are lamentable. Thus on page 26 we are told that the manor was "a self-contained estate, an economic unit, in which the various tenants were subject to the lord of the manor in his demesne farm. These tenants were of two ranks or grades: the freemen or yeomen who paid him rent for their land and helped him at busy seasons, and the unfree tenants or serfs who worked for him at a weekly wage." Such a wonderful conflation of history reminds one irresistibly of the landlord of a certain inn who shows one a cupboard in his attic and says: "This is where the old monks used to hide when they were being chased by the highwaymen." It may be objected that one cannot expect an architect to know any economic history (though why not?), but no economic historian (one hopes) would venture to write with a similar ignorance of architecture.

Even an ignorance of economic and social history would not matter much if the author had a serious contribution to make on the architectural side, where he bears a well-known name. One does not ask for original research in a book of this kind, but one is surely entitled to expect a knowledge of what is already accessible in print. The opening chapter on Farmhouses Before c. 1500 is weakest of all in this respect. Apart from the Iron Age farmsteads (e.g. those at Chysauster in Cornwall), the chapter is entirely concerned with Roman villas and medieval manor-houses. The recent work of Sir Cyril Fox and Lord Raglan on medieval farmhouses in Monmouthshire is nowhere mentioned; nor is the briefer work of the late Mr Hansford Worth on the medieval farmsteads of Dartmoor. Much other incidental information about medieval farmsteads is scattered through the Proceedings and Transactions of local historical and antiquarian societies, but the author has made no search in these sources.

Chapter II is devoted to Medieval Granges, Tithe-Barns, and Dovecotes. It is particularly beautifully illustrated but is well removed from the subject of farmhouses. Chapters III to VIII are concerned with farmhouses of the sixteenth and seventeenth centuries in six broad regions of England, "the regions being selected to correspond with the types of build-
BOOK REVIEWS

ing material that lay nearest to hand.” Here the author is more at home, and if one accepts the fact that he is not concerned with the development of internal plans, one finds much to enjoy, above all perhaps where he writes about his ancestral Yorkshire. One hopes, however, that the facts of his native countryside are more accurately given than those for south-western England, where there are a number of mistakes. It is not true to say (p. 136) that coal did not reach Devon and Cornwall until the eighteenth century. Richard Carew was writing his Survey of Cornwall in the 1580’s, not in 1602 (p. 137). The Aclands are not known to have a Saxon ancestry (p. 139) and Acland Barton qualifies much more readily as a farmhouse than many of the author’s other houses, though he seems to have doubts about it. Both Rashleigh and Colleton Bartons were rebuilt in the early seventeenth century, not the late sixteenth (p. 138).

The book concludes with a chapter on Eighteenth and Early Nineteenth-Century Farmhouses and another on the Victorian Farmhouse, in both of which the author draws much upon contemporary architectural books. There is much original social history in these chapters, which in this respect are the best in the book. But the real history of the English farmhouse still remains to be written.

W. G. HOSKINS


This is a pioneer work of outstanding merit. It is not the first time that attention has been drawn to the drove roads of Britain. There have been articles, and at least one short book in recent years on the subject. But Mr Haldane is the first to have undertaken an enquiry on a national basis into the documentary and field evidence as well as the living oral tradition of cattle-droving. His book adds to everyone’s enjoyment of the Scottish countryside by disentangling a whole series of road networks and explaining their origin, and it serves the historian too by brightening one of the dimly-lit corners of marketing history.

The fullest part of Mr Haldane’s story relates to cattle-droving in the eighteenth and nineteenth centuries, and tells of the fortunes of the drovers and cattle dealers from the time when their business became well established until its decay in the 1880’s. For this narrative, Mr Haldane draws particularly on the Statistical Account of 1791–9, the General Views of Agriculture published at much the same time, and the New Statistical Account of 1845. He also makes excellent use of contemporary memoirs, and for the nineteenth century, of stories that linger in the memory of living people. His anecdotes are entertaining and skilfully woven into the narrative, and the inherent dramatic qualities of his subject are underlined in graphic passages, which turn this scholarly history into an adventure story as well. A colourful description of Broadford Tryst, where cattle from Dunvegan and the Outer Isles paused on their journey southward, illustrates the vivid quality of his writing. “Here too,” he writes, “were the noise of cattle and the shouting of the drovers, the quarrelling, bargaining, and courting of the crowd, the tents in the hollow where food was cooking for weary drovers, and in the background the steep stony sides of Ben-na-Cailich looking down on the bay and the river...”

Mr Haldane recognizes the remote beginnings of the cattle-droving business in Scotland in the raids and cattle-rustling between glen and glen, which are as old as history itself. But his story proper begins with the evidence of peaceful droving at the end of the fifteenth century. Although the documents are sparse and the information fragmentary, they are enough to show livestock on the road to England by the sixteenth century in sufficient numbers to warrant interference by the Scots Parliament and Privy Council to safeguard the food supply at home. Restrictions imposed and dis-
carded in turn during the sixteenth century reflected the same uncertainty of purpose as that shown by the English government towards the question of corn export. Undeterred by food crises, and panic decrees alternately obstructing and facilitating their passage, the Scots cattle threaded their way in slow, dignified procession to London. Their path was made smoother by the union of the crowns in 1603, and the cost of their journey cheapened after the Restoration when a new policy of free trade was inaugurated. The order of 1663 permitting the transport of cattle by sea without toll, and the later order of 1672 granting free passage to cattle by land are better understood when considered in conjunction with other measures taken towards freeing the export of corn at the same time. Finally in 1707 by the union of the two Parliaments the last obstacles to the free movement of cattle were removed, and the marketing systems of the two countries merged into one. Scotland's independent trade connections with the Continent were broken, and she became wholly reliant on the English market. The Scots producer was not dissatisfied, however, for the demand for meat in England's growing industrial towns and in the centres of industry in southern Scotland was insatiable. The English government's bulk purchases of meat for the armed forces kept prices high, and gave an added stimulus to production for nearly a century, from 1727 until the peace of 1815—"a sorrowful peace for me," as one Aberdeen-shire breeder described it, "for it cost me £4,000."

The two main cattle trysts in Scotland, where the herds were gathered together for their longer journey south, took place at Crieff in the second week in October, and after the middle of the eighteenth century at Falkirk, three times a year in August, September, and October. These markets were a memorable experience, "when thirty thousand black cattle in different droves overspread the whole adjacent country for several miles round the town." Contemporary descriptions of the drovers were couched in less glowing terms. "Shaggy, and uncultured, and wild" was one summary judgement, based upon appearances only. Mr Haldane corrects this one-sided view by emphasizing the responsibilities and dangers of their calling. To take sole charge of some fifty to sixty animals in a herd of between one and three hundred beasts (or a thousand beasts and more in the nineteenth century), leading them from the highlands of Scotland to the grazing lands of the Norfolk fen, across dangerous rivers and wild country, protecting the cattle from theft, judging the right routes for the right weather, eating frugally, and sleeping roughly, required uncommon skill and patience, and exceptional powers of physical endurance. It is not surprising that the drovers had no time for the elegant manners of the town, and shocked the squeamish urban dweller with their rough language and coarse behaviour.

Then, too, their trade was precarious. They were rarely wealthy men, yet a drover in the mid-eighteenth century thought nothing of buying cattle to the value of £10-12,000, paying for them partly in cash, but mostly in promissory bills. If sickness overtook the herd, or political changes upset the balance of his financial calculations, he and the farmers who had entrusted their cattle to him faced ruin. According to one report in the Statistical Account the farmers of the parish of Assynt in the 1790's reckoned on meeting severe losses on their cattle sales once every ten years, and in Galloway in 1813 it was estimated that nine out of every ten drovers had been at least once insolvent. Yet the hazards of the business did not prevent some drovers from winning a high reputation for trustworthiness, even though they did not, so far as Mr Haldane can discover, become carriers of money and bankers like their Welsh colleagues.

Five out of Mr Haldane's twelve chapters are devoted to an examination of the drove routes themselves, in so far as they can be established from old eighteenth- and nine-
teenth-century maps, and by inspection on the ground. He traces the course of the main routes, and provides a map, but he emphasizes that many of the subsidiary tracks have long since fallen into disuse and become unrecognizable, that some roads had not one but several courses according to weather conditions, while others did not originate as cattle tracks at all, but were only later adapted to that use. A typical drove road was a series of roughly parallel paths, altogether twenty to thirty yards or more in width, and occasionally bounded by stone walls. Some good photographs are included with the text showing them as they appear on the ground today. The presence of drovers’ inns helps to identify some of the roads, while the stances, where the cattle rested overnight, continue to this day appreciably greener than the surrounding countryside.

Until the nineteenth century there was no difficulty in keeping open routes on which cattle could be driven from the north of Scotland to southern England. The end of droving was brought about not so much by its cost—seven shillings and sixpence per beast for a twenty-eight day journey from Caithness to Carlisle was not apparently considered uneconomic at the beginning of the nineteenth century—but by agricultural changes and the development of coach traffic on the road. Some cattle routes became turnpike roads on which tolls had to be paid. The transport of cattle by sea became more popular, and by taking some livestock off the roads, hastened the day when the old ways fell into disuse and were closed. Travelling by the back ways became more difficult as land shortage led to enclosure, and greater economy in the use of land. The free use of stances was discontinued, and in 1848 a legal decision declared the drovers’ rights of stance to be without foundation in law. Finally, more fattening began to be done in Scotland than hitherto, making transport by sea, and later by railway, essential. By 1900 the Falkirk tryst was nothing but a fast-fading memory.

It is to be hoped that Mr Haldane’s book, while completing the history of cattle droving in Scotland, will also stimulate interest in the drove roads of England. Mr Haldane takes us over the Cheviots, and along the two main roads west and east of the Pennines to the fat pastures of East Anglia, thence to the cattle market at St Faith’s outside Norwich or to Barnet, and finally to Smithfield. But his account of the drove roads beyond the border is an outline only, and leaves much detail waiting to be filled in. The task may be a large one, for the documentary material is dispersed, but the map of England will yield plentiful evidence in its green roads, Welsh roads, and Drovers’ Arms.

That one of the main goals of the Scots cattle was Norfolk is evident from many eighteenth-century records. Defoe wrote of “the prodigious number of black cattle” fed in the Norwich-Yarmouth area. But if Norfolk was the principal feeding ground, it was not the only one. We know that “northern cattle” were being taken into the fens of Lincolnshire in the sixteenth century, and although it is possible that these hailed from no further north than Yorkshire, the suspicion of early links with Scotland does not rest on this one item alone. The earl of Argyll’s purchase of saltmarsh in the Holland division of Lincolnshire from James I may have been prompted by the desire to use it as a grazing ground for his cattle. For the eighteenth century, we have the word of Thomas Lowe, steward to the Drake family of Croft in Lincolnshire, writing in or about 1726, that “the Wounds people have of late yeares gott a Custome of buying up and bringing hither Scots Cattle, which having been breed up in so cold and poor a country as Scotland is, even the Would country of Lincolnshire is so much better than what they come out of, that it is sufficiently rich and good enough to feed them.”

Clearly, there is much to be learned of England’s part in cattle fattening, and of the influence of that business on English
husbandry. Detective work on the ground and a thorough search of the archives will bring it to light. Mr Haldane's book suggests how rewarding it will be to both writer and reader.

JOAN THIRSK


The cardinal error of this book is exemplified by its title, which puts Vermuyden and the Fens in the wrong order. Like all land drainage history the history of the Great Level is exceedingly complicated and to set it out in a way that is both clear and readable is a task of great difficulty. It is necessary to consider the state of the Fens up to the end of the sixteenth century and the measures that were taken, as for instance by the monasteries and by Cardinal Morton, to effect improvements. It is also necessary to set the statutes affecting the issue, particularly Henry VIII's Statute of Sewers, and the Commissioners of Sewers set up thereunder. In sequence there should follow an account of the negotiations that led up to the commencement of operations by the earl of Bedford and the Adventurers, which involves the terms and conditions under which the work had to be done. At this point something should be said of the general principles of land drainage, their application to the drainage of the Great Level, and the criticisms that may be made of that application. Finally, something should be said of the history of the Corporation of the Bedford Level and its successor bodies such as the Commissioners of the Middle and South Levels.

No such history has yet been written. It is true that Wells, the Register of the Corporation of the Bedford Level, wrote his history of the drainage of the Great Level of the Fens in 1830, but this work is almost unreadable, and the criticisms which Mr Harris has made of it are well justified. Nevertheless, Wells for all his lack of literary talent had the right conception. The present author has not, for he has attempted to work in the history of the Level as an inset in the life of Vermuyden. This is to make a task, which was in all conscience sufficiently complicated, quite impossible. Nor does there seem to be anything in the character of Vermuyden which justifies the attempt. No very clear picture of Vermuyden emerges from this book, but in so far as any idea can be formed it would appear that Vermuyden was an early example of a type with which we are not unfamiliar now—the arrogant technical expert. There is nothing attractive about this type of person, and the only thing that distinguishes Vermuyden from his modern counterparts was that since he had fewer rivals his position was more powerful.

The result of this approach to the subject is that much of the matter contained in the book is irrelevant to its real subject, for apart from his draining of the Fens Vermuyden is just not worth writing about. Certainly the discussion of his ancestors and his relations has no significance, nor is it really worth considering his activities in Malvern Chase or Sedgemoor.

The final impression left by this book is that it suggests, perhaps by way of contrast, how a book on the subject could be written. It is certainly not an account from which the reader will derive a clear impression of what happened. The maps do not serve the purpose of making the context clear. No doubt seventeenth-century maps have some antiquarian interest, but they should not be used to illustrate points which they only succeed in obscuring. Diagrams are a much better method of illustration, as is shown by the diagrams comparing Vermuyden's scheme of 1642 with the Great Ouse Flood Prevention scheme of 1949.

M. E. J.


The telling extracts which illustrate Mr Handley's narrative show that the large bibliography at the end of the book is no mere appendix. These extracts are particularly in-
interesting in the first chapters of the work, which deal with Scots agriculture before the reforms of the eighteenth century. One sees from them how great was the variation within the old system of 'Infield' and 'Outfield' land. Speaking generally, Infield or croft land was manured and was under constant crops, of which oats and bere (inferior barley) and mixed grain were the most usual. Outfield land was mainly used for pasture, but portions were temporarily taken into cultivation and cropped until the ground was exhausted. The farms were cultivated under the 'runrig' system, i.e. in intermixed strips allocated to joint cultivators; sometimes the strips were redistributed every year, sometimes the holding was more permanent. The size and arrangement of the holdings also varied, from the farms cultivated by the laird or by some considerable tenant or by a 'wadsetter' (wad-set = a Scots form of mortgage) to groups of joint tenants. Although the divisions of each joint holding were traditionally conditioned by the plough team—eight oxen in the Low-lands, four horses in the Highlands—all the surviving old rentals I have seen show that the size of the individual shares varied considerably. Below the joint tenants was a variety of cottars and other lesser fry.

The picture of the old Scots agriculture founded on copious quotations from eighteenth-century sources is uniformly and monotonously sombre. It is indeed difficult to imagine how the country people survived at all. (In the descriptions the word peasant, so often used, strikes an alien note. The country people were, as a matter of fact, largely of kin to the gentry, and the term "peasantry" is misleading when applied to a society where class barriers were far lower than in most European countries. It was not habitually used by native writers.)

As a matter of fact, so early a writer as Frois-sart, although he described the country people as being very poor, was evidently disconcerted by their high spirit, and descriptions by travellers of the sixteenth and seventeenth century are on the whole not so scornful of Scots agriculture as those of the eighteenth century. Perhaps there was deterioration during the seventeenth century, due to cumulative maltreatment of the soil, and the dietary of the people must have suffered when, after the Union of the Crowns (in 1603), the great export of hides was superseded by the practice of sending the beasts south on the hoof. But surely something must be allowed for the attitude of most of the eighteenth-century writers, such as the authors of the reports on the various counties to the Board of Agricult-ure, who were contrasting the new methods with the old. History has shown that many of the new methods were not so triumphantly successful (would Sinclair himself be quite so enthusiastic about sheep if he saw the present state of many Highland hill-sides?), and it may be that their shadows as well as their highlights were rather accentuated.

In the same careful detail, Mr Handley proceeds to describe the great changes that not only brought much farming practice into line with the improvements in England but in some districts surpassed them and transformed the face of the countryside and the lives of those who lived on it. Unlike the Industrial Revolution, the great innovations of the Agricultural Revolution were worked out in the first half of the eighteenth century, a period in Scotland of economic frustration, but, as in the Industrial Revolution, the great advances were made by the interrelation of several groups of inventions or innovations. The enquiring and scientific spirit of the seventeenth century had led to practical improvements in English agriculture, especially the use of the fallow, and this was followed by more purely scientific improvements arising from the study of botany and of plant nourishment; and the rotation of crops was worked out and adjusted to the particular needs of different districts. The all-important cultivation of the turnip in these rotations overcame the cardinal weaknesses in the old system of Scots agriculture, the plague of weeds on the uncleared land and the lack of winter feeding. When it is remembered that Scotland, which was and is largely devoted to stock raising and feeding, was very deficient in natural hay and
is exposed to prolonged and severe winters, the benefits of the introduction of the turnip and of sown hay do not need stressing. But these great improvements could only have been used on a limited scale had not the practical administrative reform of the consolidation of the intermixed strips and enclosure of the fields been introduced alongside of them. Mr Handley points out that about 1733 this was being advocated, but it would have been an improvement to the book if he had dealt rather more fully with the differences in land-tenure in England and Scotland and the absence in the latter of copyholding and customary rights. This greatly simplified the process of enclosure (in Scotland we use the word in its primary sense of building a fence or dyke round a piece of land), and was merely a matter between the proprietor and the tenant (the valuable extracts from the Monymusk Papers published by the Spalding Club and the Scottish History Society admirably illustrate the process).

The movement for agricultural reform spread among enterprising proprietors all over Scotland, and the section of the book about these pioneers is particularly interesting and summarizes information not supplied in other books dealing with Scots agriculture. Among professional farmers the movement spread more gradually from the extreme south-west and south-east up the eastern coastal plain, with the lesser folk struggling behind, so that in the Highlands the great change from cattle to sheep overtook the agrarian changes.

The disastrous social changes largely brought about by the coming of the black-faced sheep are dealt with with great moderation, but although it is but a side issue in the book I venture to think that such contemporary sources as the Wardlaw MSS., the Black Book of Taymouth, the Book of Dun-vegan, and Boswell's account of his visits to Raasay and Cull show that the relation between a chief and his clansmen was not quite as one-sided as Mr Handley's quotation from the Englishman Burt suggests.


This is a welcome second edition of a book first published in 1927, comprising a history of the farm and farming routine from neolithic times to the present day. Information about husbandry, ordinarily dispersed in many different places—in works of contemporary literature, in treatises on husbandry, and among printed editions of documents—is here brought together in a single narrative. On this account, the book is extremely useful. Its serious shortcoming in 1954, however, is that the interwoven commentary, based on secondary works, is badly out-of-date. This would not matter so much, were the new edition not described as a revised edition. It is revised, but in the most niggardly fashion, and the reader is given no indication of the principles on which the revision was carried out. The first three chapters on prehistoric agriculture have been considerably altered and the bibliography enlarged to take account of new archaeological evidence. But in the later chapters, one would think that historians had been asleep since 1927 for all the notice that is taken of their work. No alterations appear to have been made to the sections on medieval, sixteenth-, seventeenth-, and eighteenth-century husbandry, and only the slightest additions to and subtractions from the last chapter, which brings the history of farming through the nineteenth century up to the present day. The statement that “the great underlying cause of the breakdown of the manorial system was the increasing exhaustion of the soil,” which was criticized when the book was first published, reappears again without any warning to the reader that it is still a much-disputed opinion, not an established fact.

The chief disappointment of the revised edition, however, lies in its omissions. The uninformed reader will go away starved of information which in the last twenty-five years has immensely deepened our understanding of field systems, and infused new life into the old discussions about open-field
husbandry. There are none but the slightest hints in this book of the differences of farming practice between regions, and none of the variety and flexibility of cropping arrangements, devised within the framework of the old system, to keep it working as economic circumstances changed. Here the fields are represented as either open or enclosed—a view which credits our ancestors with none of the resourcefulness and ingenuity in getting a living which they displayed in building their churches, protecting their homes, and evading their taxes.

JOAN THIRSK
NELSON’S
AGRICULTURAL BOOKS

NEWEST TITLES

BEEF PRODUCTION
Professor M. M. Cooper
12s 6d
The most valuable and up-to-date information on every aspect of cattle-breeding, the qualities at which to aim, the selection of strain, feeding standards, adaptation to varied conditions, fattening of cattle, and the economic problems involved. Sixteen halftone plates and twenty-one text figures.

FARM BOOK-KEEPING
C. V. Dawe
15s
The author explains clearly and simply the various details of modern farm book-keeping. The accounts used as examples are those of an actual farm, and this book should prove invaluable both to farmers and to novices.

FIELD MACHINERY
Dr Cornelius Davies
15s
Dr Davies examines in detail the machines used in every field operation—ploughing, harrowing, planting, reaping and binding, hay-making, potato lifting, spraying, and so on. He points out the merits and special purposes of the various machines and shows the conditions necessary for their efficient and economical working. Illustrated.

THE SCIENCE & PRACTICE OF GRASSLAND FARMING
H. I. Moore
8s 6d
Good management of grassland involves problems such as the choice of seeds, mixtures, manuring, re-seeding, when to cut, when to graze and when not to graze, and the relative merits of silage, hay, and dried grass. Into this book Dr Moore has packed much sound guidance and scientific knowledge about these and allied problems.

prospectus from the publishers
PARKSIDE, EDINBURGH 9
Farming is by far the most important occupation of mankind. We must eat to live; and we must farm before we can eat. In *The Wonder Book of the Farm*, one of the most recently published volumes in this familiar series, is told the full and attractive story of farming, in this country and in other lands, and the great romance surrounding its way of life. There is a pressing need for young people to take to the land in order to produce the food so urgently required by the peoples of the world and it is hoped that this interesting book will stimulate and maintain the interest of boys and girls, of both country and town. An ideal gift for children.

**AVAILABLE FROM YOUR BOOKSELLER 12/6**

There are now 20 volumes in the *Wonder Book* series and a complete list of titles will be sent on application to the address below.

**WARD LOCK**

WARD LOCK & CO. LIMITED, DEPT (B.), PRETORIA ROAD, LONDON, N.18
The British Agricultural History Society

PRESIDENT: SIR JAMES SCOTT WATSON, C.B.E.
TREASURER: PROFESSOR EDGAR THOMAS. SECRETARY: J. W. Y. HIGGS
EDITOR: H. P. R. FINBERG

Executive Committee: Alexander Hay (Chairman), Frank Atkinson, R. N. Dixey, G. E. Fussell, Captain E. N. Griffith, Stuart Maxwell, W. E. Minchinton, George Ordish, F. G. Payne, Mrs Joan Thirsk, R. Trow-Smith

The Society aims at encouraging the study of the history of every aspect of the countryside by holding conferences and courses and by publishing The Agricultural History Review.

Membership is open to all who are interested in the subject and the subscription is one guinea due on 1 February in each year.

Details may be obtained from the Secretary, c/o Museum of English Rural Life, 7 Shinfield Road, Reading.
Great Farmers

J. A. SCOTT WATSON and M. E. HOBBS

"Excellently written account of the great farming pioneers. Horses, cattle, sheep and poultry and their breeders all come in for skilled analysis."—Yorkshire Post. "Extremely well written, readable and ... remarkably well informed."—H. J. MASSINGHAM: The Field. Illustrated 21s.

English Husbandry

ROBERT TROW-SMITH

"An accurate and readable account not only of the changes which have taken place in our countryside from earliest times, but a clear analysis of the forces which produced those changes. The author both succeeds in writing history and also achieves the feat of making vivid pictures of farm life in various ages."—Birmingham Post. Illustrated 18s.

British Grasslands

T. BEDFORD FRANKLIN

A history of grasslands in Britain through the ages, from the hill pastures of Neolithic man to the modern leys. Illustrated 21s.

The Ancient White Cattle of Britain and Their Descendants

G. KENNETH WHITEHEAD

A magnificently illustrated descriptive history of all the known herds of white cattle, both ancient and modern, wild or domesticated, that have existed in the British Isles. With 48 pages of photographs. 63s.

Scottish Farming in the 18th Century

JAMES E. HANDLEY

"Dr Handley has done justice to his subject ... an authoritative publication, welcome to the student and a good source book for further study."—Agriculture. "A brilliant book."—British Agricultural Bulletin. 25s.

Faber & Faber, 24 Russell Square, London, W.C.1
The Domesday Geography of England
EDITED BY H. C. DARBY

The Domesday Book has long been used as a source of legal and economic information, but its bearing upon the history of the English landscape has been comparatively neglected. This series of six volumes uses the Domesday material to reconstruct, map, and describe the face of England in the early Middle Ages. A prospectus is available; Volume I on the Domesday Geography of Eastern England is published.

55s. net

Tavistock Abbey
H. P. R. FINBERG

A study in the social history of Devon, published in the series of Cambridge Studies in Medieval Life and Thought.

25s. net

The Abbey and Bishopric of Ely
EDWARD MILLER

The social history of an ecclesiastical estate from the tenth to the fourteenth century. Cambridge Studies in Medieval Life and Thought.

25s. net

The Influence of England on the French Agronomes 1750-1789
ANDRÉ J. BOURDE

An examination of the relations between France and England in the late eighteenth century in the sphere of agricultural theory and experiment.

32s. 6d. net

An Historical Geography of England
EDITED BY H. C. DARBY

Fourteen studies on various aspects of the geography of England, including its agricultural geography, before 1800.

40s. net

CAMBRIDGE UNIVERSITY PRESS