the Cairnwell Pass and negotiating the famous Devil's Elbow, a dangerous double turn, before gently running downhill through very impressive scenery. From Blairgowrie I went by train to Edinburgh, arriving in time to have lunch and at 2.15 p.m. going on an afternoon tour by motor-coach to Abbotsford, Melrose, and Dryburgh Abbeys, arriving back at 9.30 in time to catch the train for the south, so that I could be back at work the following morning.

Ten very full and enjoyable days were these, and typical in many respects of the hundred I devoted to seeing Britain first.

What great contrasts I found in such a small compass! On the Romney Marsh fifty sheep fattening to the acre, the most heavily stocked sheep pasture in the world. On a remote island in the Hebrides fifty acres of grazing (!) to one sheep, they stood waiting for the tide to ebb and maintained life by eating seaweed. They are said to be fatter in winter than in summer, for there is more weed available then. In the Shetlands I saw sheep sheltering from wind and rain in enlarged rabbit holes: incredible to the English farmer, but a commonplace to the Shetlander.

There is good farming too in the far north. Many a local farmer in the Cotswolds might well envy the crops grown on the deep Old Red Sandstone of the Orkneys. There only the wind is the farmer's

enemy, the soil and climate comparing favourably with those of any part of Britain.

A Jersey farmer considered himself fortunate in renting land at £40 an acre for early potato and tomato growing. A Lakeland farmer deplored an increase of rent which worked out at twopence an acre.

Guernsey, with a population of 36,000 on twenty-four square miles, depended on intensive cultivation carried to a fine art; while in Sutherlandshire, with a rural population of two to the square mile, a human being other than a shepherd or keeper is a *rara avis*.

Early spring flowers, banana-trees flowering in the open, eucalyptus, palms, and bamboos, everyone associates with the Scilly Isles, yet few realize that they also flourish as far north as Loch Hourn and Ullapool in north-west Scotland. You find these rare plants and trees in deep, narrow, sheltered valleys, warmed and kept frost-free by the Gulf Stream, with a climate as mild as the Riviera's, although within sight of snow-capped mountains.

In the fourth year of the Greater War good land could still be seen lying derelict in England, yet in the west of Ireland I saw soil being scratched out from between the rocks and carried in baskets to make a field, and a 'big farmer' might have two or three acres in three or four plots spread over the mountainside, and count himself lucky with a fourfold increase of potatoes, laboriously manured with

seaweed and muck carried up the slopes on human shoulders. Here, too, I was assured by the local matchmaker that he could find me a good wife for £80, in fact I could have my pick. Mistaking my look of surprise he assured me that it would have all to be cash down, and the father would give his best cow as a wedding present. Remembering the old saying 'Loveless as an Irish marriage', I inquired if they ever married for love and not by arrangement. He snorted in disgust, 'Yes, in America, where the divorce rates are two in seven'.

Yet for all the contrasts, from Land's End to John o' Groats, from Lowestoft Ness to Valencia Island, in spite of all the differences in wealth, religion, outlook, and political opinion, the great freemasonry of a common calling means a welcome everywhere. In the house of a great landowner with a quarter of a million acres, and in a remote shepherd's cottage, I have spent many a happy hour discussing long and earnestly, in perfect harmony, the problems of the world's greatest industry.

On the completion of my tours in this country I turned my eyes to the Continent. Far too many people cross the English Channel before they know their own country. I have heard them making invidious comparisons between English and French farming. Had they studied the crops on similar geological formations they would

see that the best type of British farmer has little to learn. A great statesman once said, ‘What do they know of England, who only England know?’ Very true! But what do they know of England who only the Continent know? Ask the man who comments unfavourably on English farming when travelling between Paris and London, if he has ever seen the Fens or Lothians. Invariably he has not.

There are, of course, many other things of interest in Europe besides farming and I have thoroughly enjoyed my visits there; and it does a farmer good to know that the world extends a little beyond his own boundary hedges and the nearest market town.

Every holiday brings its little adventures. I have had my fun in many odd places, while my brother had the good fortune to meet his young and charming wife on the Farmers’ Tour to Canada and America in 1939.

Of course we never let our holidays interfere with our farming. We planned them well ahead, got the work well forward, and then felt we had deserved the break. With partners also, either of whom could run the business, it was easier to get away. It is a great advantage in farming, even if you are working seventy or eighty hours a week, to know that you can get away from it if you want to, and we made the best of our opportunities.

In the war we had neither the time nor the inclination to take even a day off, but we still had our cherished memories. One partner can say, ‘Now when I was in Budapest . . .’ The other ‘In Toronto or New York . . .’ What a lot you can get out of eighty-five acres of poor, stony land with a little thought and energy. The art of living consists in concentrating on the things you want to do, leaving the rest alone. The total cost of all our holidays was less than many a man fritters away in beer or cigarettes over a few years, though actually paid for by photographs and articles sold to travel magazines, for a farmer must never miss an opportunity of earning a little money! Since the war many of my little holidays have consisted of lecture tours at home and abroad. It is a unique opportunity to study agriculture and meet farmers, when you spend the days going round their countryside and talk to them in the evenings. I would like to place on record my appreciation of the hospitality I have received.

CHAPTER ELEVEN

The Farm Buildings

Nearly every farm in the country has inadequate farm buildings for the area of land they serve, and it is quite impossible to stock and crop the land as it should be stocked and cropped without sufficient suitable buildings.

This farm was no exception; we had to adapt the buildings to our purpose, and as capital was so limited, do the building ourselves. This, I think, would have been the solution for many other farmers in a similar position. As an example in the difference of cost: when we first came here the house needed repointing, i.e. the old mortar between the bricks replaced by cement. We had a quotation from three firms, the lowest being £75; allowing 1s. an hour for labour (farm workers then received 7d.) the total cost including materials, when we did the job ourselves, was £25, and the work is as sound to-day as when it was done.

In planning we had five guiding principles. The buildings had to be adequate for the purpose, cheap to construct, convenient for use, lasting, and pleasing to the eye.

If others plan to build on similar lines in the future I should remind them that farm buildings now have to be approved by the local authorities before work can commence, and if a cowshed is involved it will be necessary to know the requirements of the County Agricultural Authority, as almost every area has a different standard. It is possible for there to be two cowsheds within sight of one another, identical in construction, but in different counties—one being passed for the production of the highest-grade milk, and the other rejected; which indicates that there should be a national standard. Personally I am of the opinion that the man in charge is of far greater importance for the production of clean milk than a five- or five-and-a-half-foot standing, but the County Organizers, never having milked a cow before five o'clock in the morning, know better, and it may be that Oxfordshire and Berkshire cows muck in a different place. In view of these variations we do not show any measurements on the sketch map of the buildings, as we do not wish to get anyone into trouble by using our dimensions, or cause our local authority any loss of sleep, to think that in their county, of all counties, there should be a cowshed with the wrong-sized gutter. Though in actual fact our standings were designed for Jerseys, and after twenty years we would not vary them by an inch.

From the general description of the farm earlier in the book, and from the plan on page 142, it will be seen that the building originally consisted of a large Cotswold barn, with stable attached, and a long open shed, which on the west side served to house cattle lying in the large open yard, and on the east at one end making a cartshed. The barn and stable were stone-roofed, while the open shed was thatched. The yard seemed bottomless when we first cleaned it out, and a horse would sink in to his knees unless there was plenty of straw.

One of the first alterations was to put a wooden floor in one end of the barn (as we did not intend to use it for stacking corn). This gave us the same floor space for tipping grain, but also room to house the incubators, as the walls were very thick and with the floor above gave us an even temperature. In later years the other half of the barn has been fitted with corn bins for the storage of feeding stuffs, which in the early days had to be shot on the floor.

Then we built an open shed on the south side of the barn for cattle to lie in, as we intended to use the original open shed as a cowshed; this was done by fitting roof lighting and walling up the front, the thatched roof being replaced by corrugated iron—painted, as all iron and asbestos is on the farm, a dark green. There was sufficient width for a feeding passage, mangers, and the usual

tubular standings for the cows, which were fitted in due course. As an example of difference in cost, a local builder quoted £30 to put on the corrugated roof, we to provide all materials—it took my brother and me exactly a week, besides doing our usual stock work.

As the herd increased in numbers, and it will be remembered that they had to pay for the buildings out of profits, two covered yards were added. Meanwhile we had dumped many loads of stone in the bottom of the large yard, with smaller material on top, and concreted over the whole surface, making a yard which could be cleaned up thoroughly. Then a bull box and calf pens were built into the old stable, for with the reduction of horses, they could be housed in loose-boxes when necessary. A new cart-shed was built, the old one being converted into an isolation box, for it had no direct communication with the main buildings, and was later deemed sufficient under the Attested Herd regulations.

The silo is placed where it is easy to fill, either by hand or cutter blower, and close to the stock for feeding. Running water has been arranged for troughs in two of the yards, while there are taps in the cowshed, calf pens, barn, and isolation box, to save labour in carrying water; and the whole buildings area, including the road round it, can be swilled down.

The dutch barns are just across the road, convenient for hay and straw in the winter. One of them has been walled in on one side and one end, so that it can be used for a cartshed, or covered yard, when not required for corn, hay, or straw. We usually lamb the ewes there, for space is available in the spring.

The total cost of the alterations and additions, without labour, was £300. The dutch barns cost another £130: using asbestos sheeting on these adding to the cost somewhat. Levelling the site and building the barns involved five hundred man-hours, more than half of which were spent on preparing the site.

The pig-house, mentioned in the chapter on pigs, cost just over £250, and took every spare moment for over a year to complete it. To level the site we had to move over a hundred tons of soil by wheelbarrow, but it was well worth the labour involved, for it enabled us to have a ramp at the end from which pigs and manure can be loaded without lifting, and meal taken in from a lorry as easily, while underneath is the liquid manure tank, from which thousands of gallons have been taken for use on the land. The system of lighting the house is unusual, being roof lighting along the whole length of the feeding passage; this makes the pens light and the dunging passage dark, which ensures the pigs keeping their beds clean. One visitor was shown round and everything explained,

without his saying a word, but finally he exclaimed, ‘Humph! Pigs in the drawing-room, but gosh they do look well!’

On the top of the pig-house is a water tank, which supplies the whole set of buildings, a ¾-h.p. engine being used to pump the water direct from the spring, at the rate of 2,000 gallons per hour.

The brooder house, for rearing chickens up to eight weeks old, is constructed with asbestos and lined in the same way as the pig-house. Roof lighting is also similar, but in addition the whole of the glass front can be opened back to allow all the sun’s rays to reach the chickens at all seasons of the year. With air-extracting ventilators in the roof and insulated walls, roof, and floor, it is possible to maintain the house at an even temperature, a most important feature if chickens are to be reared successfully. The materials used in the construction of this building cost £110.

At a total cost of £790 most people agree we have a good set of buildings, but by doing the work ourselves, and often having to leave a job unfinished for months, we were able to achieve our purpose. The expenditure was spread over a number of years, for it will be remembered we planned to live on the income from stock, leaving income from grain for debt repayment and improvements. Each class of stock had to pay out of paper profits for their own buildings. If we had used the money for general expenses, then the

corn cheque when it came could be used for the improvement that particular section of stock was entitled to, according to the books.

The building of the road, across the swampy piece of common land and into the farm, was almost the biggest task we have ever undertaken. A distance of 660 yards involved the quarrying, carting, spreading, and breaking of over a thousand tons of stone. It took us ten years to complete, when we had a tarmac surface put upon it, and now it can carry the heaviest type of lorry, threshing engine, and, to our sorrow, heavy army tanks. What price could be put upon a construction of this description we do not know. A previous owner once had a quotation for £1,200, rather more than the whole farm was worth at the time, so it was never done. In our case we had only to give our time and labour, apart from tar and sand. To us, who have hauled out bogged carts from the swamp, had horses go in up to their bodies, and on one occasion spent a week getting a threshing engine from the council road to the rickyard, it has seemed well worth while. The trouble we took, draining away springs, deepening ditches, building three bridges, seems to have been well justified when a lorry and trailer can come in, turn round without shunting, and go out with twenty tons of potatoes or wheat.

In August 1939 my brother decided to get married in the following spring, and we therefore needed another house. It had

long been his desire to build a house of his own design, so here was the opportunity.

Now we have always considered that no more money should be spent upon a property than it should be worth in the open market. You sometimes see an advertisement in the agricultural papers, 'Small Farm, £7,000 freehold. £20,000 spent on the buildings fifteen years ago.' Now Oathill is not, and never has been, a rich man's hobby, but an economic proposition from the day we took over, so we decided £1,000 should be the maximum cost, and with any other improvements we have carried out, the whole property would be well worth our total expenditure over the years.

This was perhaps a little hard on my brother who wanted every comfort and convenience, such as central heating, large windows, cloakroom with heated cupboards for wet coats, hot and cold water everywhere, and other refinements. However, we have had a lot of practice in 'making the garment fit the cloth', and I had every confidence he would do it.

Had the times been normal he would probably have built it brick by brick, but we were very busy changing over our farming system from peace to war, as described in another chapter; we also had several other irons in the fire, so for the first time we employed a builder.

But first the rough plans were made and taken to a local architect, recommended by the Rural District Council, for without their approval nothing can be built. After this my brother consulted his fiancee, whose requirements were simple—it should be warm in winter and have plenty of cupboard space. Her life in a large Suffolk house (believed to have been owned by John Winthrop, who sailed with the Pilgrim Fathers to America) which was impossible to keep warm, and had few cupboards, undoubtedly prompted her ideas as to an ideal house. He also showed the plans to many of his friends, asking for their criticisms, and received several excellent suggestions.

By then war had been declared, but we had purchased all the materials, and had them delivered on to the site or into the farm buildings. The only part not received was the staircase, which a Midland firm had quoted for, claiming they could make up when required as they had the wood in stock.

We then approached the builders for quotations, materials in hand being contra-accounted against their quotations at cost. In other words, they would be paid simply for building the house. Quotations varied from £1,420 down to £950. After inspecting two houses built by the man giving the lowest quotation we accepted the

tender, specifying that the house must be completed by the following March.

The foundations were laid in October, but wet weather caused delay and by Christmas the building was only up to the ground-floor window-sills. Then the hardest winter we ever knew set in and work was stopped for eight weeks. The ground was so hard that we could not even dig the trench 300 yards long which was needed to take the water main. When the frost gave the brickwork had been damaged to such an extent that the ‘house’ had to be taken down again to the foundations. This was a great disappointment to my brother, as he always likes to keep to the schedule which he has in mind. However, a better house resulted from the delay, for the water system was replanned to guard against so severe a winter in the future, and no trouble was experienced in the following winter when we had another severe spell.

The position in early March, when the house should have been nearing completion, was the same as in October—i.e. only the foundations were laid. Another worry was that the small spring which was supplying the water for concrete mixing would run dry at any time, therefore we had to push on to getting the water main across the field. The trench was dug perfectly level at the bottom, through a hillside, so that there should be no air-locks in the water-

pipe. This involved digging down to nine feet in parts of the field, some of the way through solid rock with a cold chisel and hammer, splitting off an inch or two at the time. How slow this seemed, with the other water supply failing. Finally we got through on a Saturday evening, the spring drying up on the Sunday.

The builder promised to put on several bricklayers, but never had more than one working; both the builder and his son were highly skilled carpenters but they were content to mix concrete and carry bricks, which any labourer would have been content to do at a shilling an hour, as they could not get on with their own work until the brickwork was more advanced. From our experience of planning work we knew they were wasting their time and money by not getting more bricklayers. Another annoyance was that they would not work a minute overtime, although they had not earned a penny for eight weeks.

Progress was slow, but as my brother was ‘clerk of the works’ nothing was skimped, and he had everything done thoroughly.

In late April we were ready for the staircase and wrote to the firm who had quoted for this, asking for delivery. They replied that they had used the timber for another job, and it would be necessary to get a permit to purchase. Our application for this was rejected, but our long experience in dealing with Government departments

was equal to the occasion. Three identical forms were filled in and dispatched, two of which were again rejected, but the third brought the permit by return.

The builder had been drawing money from time to time, which meant that to all intents and purposes he was working for us, leaving a little money in hand. But one Friday night he came for money to pay the plasterers (this trade being highly skilled was being done by sub-contract), who wanted half the quoted price for the job. My brother asked if the work was more than half completed. The builder said he was sure it was. But no plasterers came on the Saturday or Monday. So the builder was instructed to see them, and was told they would not be coming again as they had got a job at more money in Oxford. We 'phoned the Labour Exchange and found they had plasterers on their books. So the builder was told to warn his plasterers that unless they were at work again by the end of the week we would have it completed by direct labour and sue them for the difference in cost. They promised to return on Friday, and did so, but this was another week lost.

In late June the builder came to the conclusion that he could not make a profit on the job, due, we considered, to his inability to organize his labour properly in the early stages; for we now believed we could have made a profit on the figure by direct labour.

Finally he told us one Friday that he would not be coming again, as he had joined the R.A.F. as a carpenter and had to go on the Monday. Fortunately my brother's varied experience of this class of work on the farm buildings was sufficient for him to complete the house unaided and he moved into the house in July 1940.

After three years' occupation, both my brother and his wife say they would not alter anything in the design or construction, so it may be of sufficient interest to give details here which may interest those who are thinking of building in a rural district after the war.

Being in the Cotswold area the house had to be in keeping with the limestone-built houses of the district, but as cavity walls were desired for dryness, stone-coloured brick was used, which from a short distance gives the appearance of stone. The roof is of handmade sand-faced grey pantiles, which give the house an attractive appearance quite in keeping with the familiar Cotswold style.

All the timber used was Columbian pine, which after staining and polishing comes up rather like dark oak. All the floors are secret-nailed, so that no nail heads appear on the surface. Window frames are metal, with special hinges which permit the outside to be cleaned without leaning out of the window. The water is supplied from the never-failing springs at the farm buildings and goes by

gravitation to the house. Water from this limestone soil is hard; so hard that a water softener is impracticable, and to overcome this a 300-gallon tank, with an overflow to the drains, has been built in over the coal store to collect all the rain from the roof. This closed tank, with an inspection plate for cleaning, appears sufficient for the purpose, for they have never been short of soft water. A pipe brings this water to the copper, which can be filled by a turn of the tap, which is sufficiently high to fill a jug or bucket as well if desired. There is also a tap at the bottom of the copper for emptying it; why most coppers have to be bailed out I cannot think, unless they were designed for women's use by men who have never had to do this unnecessary work.

Being two miles from a village and eight from a town there is no electricity, gas, or main drainage. This house has therefore been fitted with a large septic tank, which seems a most efficient method of draining.

The hall, cloak-room, scullery, and larder have buff-tiled floors; window sills for these rooms are also made from the same material. In the larder there is a white-tiled shelf, two feet wide and four feet long, in addition to seven eleven-inch shelves running along the two longest walls.

seems like spring on a winter's day, as there is a gentle heat from the hidden radiator.

A radiator is also fitted in the hall, in a narrow recess under the stairs so that there is no risk of hitting it with a tea trolley or of a child running into it. Near the kitchen door there is a large cupboard with shelves and space for brooms, etc. The cupboard under the stairs is entered from the kitchen.

The cloak-room is fitted with a steel cupboard—hot-water pipe running under it—with holes in the bottom so that hot air rising through it will dry coats overnight. This is a special blessing for an outdoor worker in very wet weather. A compartment at one end has shelves for boots and shoes, the bottom shelf being used to dry them when necessary. A steel seat between the cupboard and the wash-basin is so designed that Wellington rubber boots can be stored, for it does not do to keep them in a heated compartment. It will be appreciated from the plan that this room can be entered from the scullery or the hall. The objection that if the latter door were left open it would give a visitor at the front door a view of the wash-basin and so on was overcome by fitting a door-closer.

The kitchen has white tiles behind the oil cooker and above this there is a ventilator, taken into the chimney stack to carry off the

heat and smell of cooking. Provision was also made so that a range could be fitted at a later date if desired.

In the scullery there is a sink eight inches deep and the bottom is set thirty inches off the floor—the plumber thought it was quite mad to fit a sink so high—for most sinks are set too low, and why should a woman have to bend her back when working there? There is a draining board each side of the sink and below there are cupboards with shelves. The position of the copper and boiler will be seen on the plan (the recess in which they stand had been tiled, and anthracite coal can be shovelled from the coal store to the boiler quite easily). There is a clothes-dryer, on pulleys in the ceiling, running full length of the room and in wet weather the washing can be dried without trouble as there is a certain amount of heat rising from the boiler. This has been especially useful since the baby arrived. Between the draining board and back door there is sufficient space for the ‘mangel-cum-table’ to stand.

On the second floor, in number one bedroom there is a large cupboard—between the door and the bay window—with the usual wardrobe fittings, and above is a small cupboard for hats, etc. A hot pipe passes up one side, so that clothes are always aired. There is another small cupboard at the side of the fireplace for shoes, with four shelves in it. The radiator is in the bay. My brother could not

find a fireplace to please him, so he designed one he thought his wife would like, and was, I think, much relieved when she did express her approval.

Number two bedroom has a small radiator under the window and again the cupboard has a hot pipe passing through it.

In number three bedroom there is a large radiator between the two east windows as this is likely to be the coldest room, for the east winds can be very cold on our side of the Cotswolds! Again there is a large cupboard with a small one above. There is also a fitted basin in this and No. 2 bedroom, which my brother added in completing the house, at a cost of less than £10, for it occurred to him that with the fitted basin only in the bathroom there might be some delay when visitors were washing. It may have also occurred to the reader that we both have a horror of wasting time!

The bathroom has the usual fittings, including a hot towel rail and a large airing cupboard, which does not have the hot-water tank in it, for tanks often take up too much room in airing cupboards, but pipes passing backwards and forwards across the back. The hot tank is in the scullery above the boiler and copper, as the greatest efficiency is obtained by having this as close as possible to the boiler.

Above the landing there is a trapdoor into the roof space, the ceiling rafters of the bedrooms being boarded over; this makes a good store for apples, etc. The roof is felted, under the tiles—there are also hot pipes crossing, which prevents freezing. These pipes are lagged but even so there is a certain amount of heat from them.

The reader may wonder why there is no garage, but as they did not want one for the duration of the war this was no included, though it will be seen on the plan that space has been provided for it. If by the time the war is over and the world settles down, the family plane is the common mode of transport, then they will only have to build it with a door in the back through which to wheel the plane from the field, instead of driving the car up the driveway. It will be noticed that we still plan for the future!

I wonder what faults other people may be able to see in the plans of the house, or from my failure to describe the fittings? But I do suggest that it is a very comfortable and convenient place to live in, one which should be within the reach of most people who require a three-bedroom house, on the small new farms which I sincerely hope will be a feature of the English countryside.

CHAPTER TWELVE

The Fourth Rung of the Ladder

In describing how I set myself to become a farmer in five years, and achieved my ambition in four, of how we planned to establish ourselves as tenant farmers in seven years and owner-occupiers in a similar period, both of which were accomplished in ten, it would have been very nice now to be able to say that we intended to become agricultural landowners with tenants of our own, as part of the great plan. Unfortunately that is not true; fourteen years is a long time to plan ahead at the age of twenty. We did not realize then how rapidly the years slide away, and that we would have to do something with the rest of our lives.

No. We climbed into this much-despised class fifteen years after starting to farm, and nineteen years after I left school. So within twenty years I travelled all the way from labourer (when I was cowman in Essex) to landlord. My brother, being two years younger and a farmer before he was eighteen, has done that much better. Never let any young man say there are no opportunities in farming. They are there all right, but mostly disguised as hard work.

Opportunity, we are told, only knocks but once. Personally, on looking back, I realize she spends most of her time hammering on someone's door, but they do not bother to get up and let her in, or complain the door is too heavy, jammed, or pinches their fingers!

Of course, we have continued to farm our own land, but the ownership of farms which are let to good and careful tenants can afford an equal satisfaction. With a good income from our own farming, rents can be reinvested in the land from which they are drawn, and we can look on property as something which appreciates in value over the years when it is not bled white by the taking of rent for dissipation elsewhere.

Our method might find other adherents, and remove the reproach against the landlord system, if each landlord farmed a small area really well, preferably his poorest farm, and lived on the income from it, reinvesting his rents for the improvement of his estate. No tenant can whine, 'Farming is doing badly' if the landlord himself can show that the land he retains in hand is a real business proposition. The same applies to the Church; the moan of the poor clergy would no longer be ventilated in the columns of the daily press if they kept their glebe farms (usually about the same area as Oathill) under their own direction, and made a few hundred a year from their farming. Or if the Ecclesiastical Commissioners worked a

few of their farms on the vast estates from which they draw rents but return the least possible amount in repairs.

In many respects this aspect of our career has been the most difficult, for in taking over tenants from a bad landlord it takes a long time to win their confidence. They always suspect that a fellow farmer has bought with the intention of turning them out and farming it himself; or they have been misled by promises that repairs will be put in hand, but which are never done; and what they hate most of all is a landlord who wants the land farmed as it should be farmed.

Our general rule has been that now that half the rent goes in income tax, one-quarter is spent on repairs and improvements, and another quarter is kept for reserve. Therefore letting a farm at 5 per cent interest on the purchase price leaves us 1¼ per cent as interest for the reserve fund, which we hope to reinvest in due course. As long as it was possible we carried out all repairs by direct labour at half the cost of builders' quotations, so that the tenant had twice the value in repairs or improvements, for the quarter rent he paid to us. Gates, etc., were made in the workshop at Oathill, while a number of 'estate' fencing jobs were done by our staff.

We realize that good landlords and good tenants are as rare in this country as good labourers. But when two or three can get

together, then things improve. We as landlords are determined that every help shall be given to any tenant who is doing his best to maintain maximum production and not robbing the land. This is where our pupil system comes in. Any boy who has really proved his worth and learned our methods can be trusted with land and capital, and nowhere could we find sounder investments. When the time comes for us to retire, how nice it would be to have seven or eight well-managed, well-let farms, where the methods we have proved are being faithfully applied. This would be far, far better than trying to manage a large acreage in our declining years, which is the mistake too many capable farmers make, when hanging on to the reins too long.

CHAPTER THIRTEEN

Wartime Farming

The crisis of 1938 found us quite unprepared for war. The writer had always believed that Europe would never be led into war while the leaders of the nations could still remember 1914 to 1918. Surely even Hitler, who was reported to have been temporarily blinded by poison gas in the last war, would never permit the youth of Germany to suffer as he had? In our travels, the people of all countries seemed kindly, decent folk; and war was just a nasty memory of our youth, and the sensation of the moment in the popular press.

How wrong I was. But that crisis did give us a chance to prepare. In peace-time, although our farm was still two-thirds arable, all the corn we grew was sold for seed, and replaced for feeding by cheaper local grain. Purchased feeding-stuffs were delivered in weekly, and we usually had a fortnight's stock in hand. Compared with the Agricultural Returns for the whole county we were carrying three times the cattle, four times the sheep, ten times the pigs, and twenty-five times the poultry on our acreage. True our yield of grain and

the stock-carrying capacity of the grass was much higher than the average for the district, but how were we to face a war?

First of all we transferred our custom from a port miller to a local firm. Then we steadily built up our stocks of feeding-stuffs, dry, hard grain especially, so that by the outbreak of war in 1939 we had a year's stock of food in hand. Hearing that Germany had doubled its orders at Aberdeen for cod-liver oil in the spring, we had also ordered sufficient to last a long time. Bought at three shillings a gallon, the price rose to ten shillings at the beginning of the war, and the oil was at that adulterated with whale oil. This stock lasted until early in 1943 without losing its vitamin content, proving a sound insurance against disease and a first-class investment.

We installed a mill for grinding, a silo for the preservation of green food, also a grain-sprouting cabinet, so that starchy food like barley could be converted into a valuable protein with double the value of early spring grass, at any time of the year, with water to which nitrogenous salts had been added. A pressure steamer for cooking pig potatoes and other waste was also added to our equipment.

We spent our spare time studying very closely all the available literature we could find on the substitute foods which had been used extensively on the Continent during the last war. Acorns, beech

nuts, horse-chestnuts, weed seeds, hazel catkins, pine and fir needles, and other apparently unpromising material had been successfully used, chiefly by breaking down the cellulose content, and getting rid of resin, turpentine, and other undesirable constituents. We were amused when the straw pulp process was introduced later as something new and original.

Then came the war. Through all the difficult times before livestock rationing was introduced not one of our birds and animals missed its proper food; not one of our friends and neighbours can say we failed to help him during all that time if he was short, as we always had something we could spare. We must also acknowledge the kindness and help we received from our ‘big’ farming neighbours. At that time a merchant was allowed to sell back to the farmers one-third of the grain he bought from them, and a farmer who did not require it himself could oblige a friend if he was so disposed. Only one man refused to help us in this way, and told us we should reduce our stock. The others without exception went out of their way to help. One man we approached said, ‘You know where my granary is, help yourself, and either return it when convenient, or send me a cheque.’ Another went all the way to Banbury, fifteen miles, to bespeak some grain for us, which he had already sold. With what pleasure all the resources of our workshop

and technical knowledge were put at the disposal of the first man, when he broke a machine and had been told it was not repairable since necessary spares were in America, and his crops were spoiling for lack of it. Back in the field in six hours, he asked how much he owed us. We gave him his own reply. ‘You know where our “granary” is, help yourself.’

For the man who went to Banbury, we wrote up a complete set of books when he received an unjust demand for income tax. If money saved is money gained, he earned about £100 a mile when he made that journey to Banbury out of the kindness of his heart. God bless him! When we asked for the grain, he said, ‘Yes. It would be a thousand pities if you had to reduce your stock, after you have tried so hard to build it up.’

There are some who helped us then, whom we have never had the opportunity to repay, but they will find us willing to help at any time they require it and all the resources of Oathill will be at their disposal, with money, labour, stock, or grain should the occasion arise.

Why should we maintain our stock? Our reading had shown us that Germany lost the last war not through lack of grain or potatoes, arms or men, but of livestock products—fats and proteins, without which the health and morale of the people is steadily sapped until

they begin to think, ‘a horrible end is better than a horror without end’. They lost the war for lack of bacon, milk, and eggs. I often noticed when I was learning farming, how much better I could work on the liberal diet in the farmhouse against the bread and onions of the poorer labourers. Also our records showed that the more stock we kept, the more grain we grew, through the utilization of their waste products. The manurial residues from our stock in pre-war days were equivalent to six tons of kainit, eight tons of superphosphate, and sixteen tons of sulphate of ammonia, and in a far more valuable form. In no way could we accept the Government’s policy of despair, ‘Scrap your stock and grow corn’. And the policy unfortunately seemed to be shared by our local War Agricultural Committee. Break pastures by all means, but you can still keep as much stock on the arable, or even a little more.

Once the rationing scheme was established and we could obtain our fair share, the feeding problem became much easier, as we knew exactly how much substitute food was required to maintain the stock.

Taking a forage crop for silage from the land before it went in roots enabled us to do without purchased cake for the cattle and sheep; this alone represented a saving of ten tons of concentrates. It has also made possible the production of nearly £5,000 worth of

valuable dairy stock, which would have been lost to the country had we not adapted our system to the times.

The silage campaign has not received the support it deserves. We have learned to value silage so much that we no longer look upon it as a mere wartime expedient, but as something well worth incorporating in our general farming practice for the future. In comparison the old methods of feeding now seem wasteful and extravagant when such an excellent substitute for expensive cake can be produced economically and easily on our own land. It is also safe and weatherproof, fitting in well with the ordinary routine work of the farm. The slogan of the Ministry, 'Make silage, make sure', has been proved here this year, when kale has been a disappointing crop, but we have the silo full of good stuff, without which we could not face the winter with equanimity, for silage will fill the bellies while supplying the protein the cattle require.

There is quite a lot of work involved in silage making; our records show that it takes twenty man-hours to harvest an acre of vetch silage, against four man-hours of vetch hay. But surely those sixteen man-hours are justified, for it doubles the units of food obtained from each acre.

Analysis of samples seems as misleading as analysis of the soil. We have had reports varying from 14 to 23 per cent protein, without

being able to detect the slightest difference in its feeding value as judged by the health, growth, and condition of the stock.

We take extreme care in the making of our silage, far more than the experts recommend, but we think it has been well justified. The concrete silo cost £75 and saved a £100 cake bill the first winter, had the cake been available, which of course it was not.

When I think of the good stock we have reared on silage, I sometimes wonder if we should not raise our hats to the silo, very much in the same way that naval officers salute the quarterdeck!

Steaming potatoes, up to fifteen hundredweight per day, makes a lot of extra work, but it has been well worth while for it has enabled us to maintain the pigs, which are now in demand again since the edict has gone forth that pigs have been reduced far enough, and they are now required to consume the waste.

Mangels have also proved a very valuable crop, and we have exerted all our skill and knowledge to make the best of them. We have grown up to sixty tons to the acre, stored them with extreme care, so that they tide us over that period in the summer when pig potatoes are not available, or of such poor quality that they are not worth the cleaning-off of sprouts, which are harmful to stock, before cooking.

Catch-cropping has always appealed to us, and our practice of mixing trefoil with the seed when drilling oats in our early days to provide stubble grazing for geese, still stands us in good stead, for it is now grazed by sheep or cattle.

The extent to which land can be fully occupied is illustrated by the field I can see as I write. Winter oats were cut in July 1939, and the stubble was mucked and ploughed between the shocks of grain. It was drilled in rape on August 13th, and was penned off with sheep in December, and ploughed immediately. Then came a sharp frost for eight weeks. In early March vetches and oats were planted on a good tilth made by the frost, and the crop was cut for green food and silage in July. Kale was planted on July 21st and by mid-October we were cutting a cartload per day from ten yards by ten yards, or forty-eight loads to the acre, the sheep clearing up the second growth. Then oats were drilled in mid-February, with clover and ryegrass in the bottom. After a good crop of oats, the stubble was grazed, and then shut up till spring. Dressed with liquid manure, grazed off with sheep, then a hundredweight of sulphate of ammonia was sufficient to give us thirty-three hundredweight of good hay to the acre in June, the latter month being grazed by cattle. Then the field was mucked again, ploughed, and put in wheat, trefoil being broadcast with the artificial manure in the spring, for

grazing this autumn. So that in four years we have grown seven crops, and also provided grazing for sheep and cattle between on land upon which the poultry also run for about half their time, for they obtain great benefit from stubble, ploughing, and green crops generally.

Once our system was modified to war conditions it became once more a matter of routine, and although we have worked far harder than ever, never less than eighty hours a week, we have very few worries. 'Black-out' is difficult, for we belong to the 'lantern farmers' whom so many writers on agriculture fail to understand. Before the war our neighbours looking across the hills would see a blaze of light, Tilley 300-candle-power pressure lanterns, and say, 'There's Oathill still at it'. Under war conditions these have to be shaded, and this hinders us considerably. It is a remarkable thing that so many farmers will work late in summer, but stop at dusk in winter simply for want of efficient lighting. There is hardly a job we have not done at night, and there is no hour of the day or night which I have not heard Kiddington church clock strike out when the wind is in the south.

The answer to your question, dear reader, how does a farmer find time to write a book when working eighty hours a week, is simple; this has been written between May 9th and September 4th, on

Sunday afternoons, between one o'clock and half-past four, when most farmers take a well-deserved nap. I had previously prepared an outline of the book and submitted it to the publishers, and on May 7th was asked to get it done by the autumn, and once I am set a task I am completely happy until it is finished, when I look round for something else to do, though in an undertaking of this description it would have been nice to have the leisure of a professional author or civil servant. When I read of, say, Arnold Bennett, a master of English, writing 500 words a day, I cannot help thinking how nice it would be to spend an hour pruning and polishing each paragraph, for this book is written at the rate of over a thousand words an hour and even then my mind runs far ahead of my clumsy fingers; for I cannot write to a synopsis, and use the simple narrative form, as I have told it in far greater detail to my pupils as we work together in the fields.

However, to return to wartime farming. Apart from the 'blackout' petrol is our chief difficulty. The powers that be do not realize that intensive farming requires far more petrol than general extensive farming. What a wicked waste it is that one often has to keep a tractor running on paraffin when muck carting (we have six hundred loads a year) when a drop of petrol would start the tractor again. For T.V.O. takes up quite as much shipping space as petrol.

How we hate to see it being wasted by the Services on unnecessary travel when we could use even an extra pint to the best advantage!

Double summertime and ordinary ‘summertime’ in winter make no difference to us. Providing the cows come in to milk just before sunrise on June 21st, they do not seem to mind a bit whether our clocks say 3.50, 4.50, or 5.50, for they will be milked again twelve hours later. Changing from summertime to wintertime means again an alteration in the clocks but none in the star time for feeding and milking. Childish devices for getting the townsman up early mean nothing to us or our cows.

The farmers’ moan about form-filling leaves unmoved anyone who has a proper system of bookkeeping. The amount of work involved is nothing compared with keeping proper records and pedigrees. We ourselves have two systems of bookkeeping, a very simple one for the Agricultural Research Department of Reading University, and a more complicated method of our own built up over the years which enables us to detect any weakness which may develop or budget our expenses ahead if we wish to tie a lot of money up in some new venture. It also enables us to make the very best use of our land. Technical knowledge and practical experience are not enough; co-ordination, organization, and administration are also essential, and these are only brought together by accurate

accountancy. In our early days I grudged the few guineas my brother spent on auditing; I now realize that his business training was the third leg of the stool on which our little edifice has been built.

No chapter on wartime farming would be complete without some reference to the War Agricultural Committees. We deplore that they should have been considered necessary; it is a very great reflection on British agriculture as a whole that each individual farmer was not prepared to make the best possible use of his land in the national interests, which are, of course, identical with his own. The greater the production the greater the profit; the more the farm is self-supporting the less you have to spend. What a mistake it is to excuse inefficiency on the grounds that 'farming is a way of life'. One should certainly farm because one likes it, but they will like it a great deal more who also make it pay well, and without profits to reinvest nobody can make the best use of the land.

Our relations with the local committee have been far happier as farmers than as landlords, though individuals can be very annoying in their manner of carrying out their duties, and in expressing opinions which are outside their province.

In the early days of the war a member of the committee called, and in looking round said that it was the small farms which were not

fully productive. Now this is quite contrary to the writer's experience, in visiting over a hundred farms in my travels before the war, and my view is supported by official statistics. I instantly made the following offer, or challenge, which is still open.

'If any large-scale farmer on similar land could produce properly audited and analysed accounts to show over a longer period a higher output per acre, per person employed and capital involved, we would pay £100 to any charity. Also if it was contended that our high pre-war output was due to cheap, imported feeding-stuffs, then if any large-scale farmer, in the Cotswold area of stone brash soil, could prove better figures than us on any recognized system of rotational farming, under wartime conditions, on the same basis, then another £100 would be paid to any war charity.'

Should any advocate of large-scale farming in this country like to earn a useful sum for his favourite charity, this is an excellent opportunity. Our output in 1942 was £90 per acre, £1,850 per person engaged, the gross annual return being four times our valuation of the live and dead stock. Twenty years of farming have enabled us to increase our output thirteen times and our capital a hundredfold.

But it is not the odd opinions held by members of the committee that concern us most. Freedom of speech was one of the Four

Freedoms in which President Roosevelt crystallized the needs of the world—freedom of Speech, of Religion, from Want, and from Fear. I wish with all my heart he had included freedom from Bureaucracy, for in the committees this is found at its worst. In the last war a lot was said about farming from Whitehall. This was at least impartial, which is more than can be said of local control.

What is most annoying is to have an order served upon you compelling you to carry out something, with all the force of law behind it when this something is what you are only too willing and anxious to do. I give three examples.

In the early days of the war, after the farm had been inspected, we were told we were making the best use of the land, and no orders were made. Then the following year, at the time of the great survey, which actually took nine minutes and consisted of writing on to a map the crops I said were in the fields, I mentioned that we intended to plough up fifteen acres of ley, even though it was a first-class plant and a mass of white clover, being the finest Aberystwyth strains, as we could carry more stock with oats and forage crops. A few days later we got an order to carry out this work, which had in fact already been started. Now why should we be compelled to plough good ley, when in 1943 there is on the adjoining farms still a far greater area of tumbled-down grass from the 1890s?

Late in January 1942 the local member and the area officer called to inquire if we would grow two acres of potatoes. I told them that our root land was already planted with vetches and rye, to be followed by kale, but if potatoes were required we would sacrifice two acres reserved for oats, but I did hope they would not make an order. The seed was ordered, the land baulked, and in due course along came the order. We grew an excellent crop, which paid us well, but lost three tons of oats, for the rest of the field yielded ten quarters to the acre, which we could put to better use in feeding stock. But what annoyed me was that we should be 'compelled' to grow potatoes, when we were already taking two crops from our root land, and another farmer in the district with 850 acres, 130 of which was bare fallow, some of which was only mowed, was not apparently required to grow a single potato. How much wiser, and more in the country's interests, to have made an order for us to grow the crop on the other man's land, which we would have been quite happy to do, for we did in fact do the cultivations on eight acres for another neighbour as we have a rigid toolbar for our tractor.

Then in August 1942 we wanted to disc-harrow and re-seed a rough steep bank of four acres. We had tried to improve it by heavy stocking, but thought we could do better. So we sought permission to carry out the work, which is required by law. Two members and

an official called, and after inspecting, inquired if I did not think it was a waste of Government money. I said only our own need be wasted. We only wanted permission, not the £3 an acre grant. But the order was made, and so we felt justified in claiming the grant, which we obviously did not need, for the grazing in the first year alone has been well worth the expenditure.

With this steep bank we tried rather an interesting experiment. The grass came well, and was grazed back hard in the winter, on the advice of an expert from the Government Grassland experimental station. Then it was shut up till spring. Now many people will be familiar with the unit system of estimating the value of grazing. One sheep for one day is a unit of grazing, other animals in proportion. So early in April, on the day that a neighbour turned his sheep into old tumbled-down pasture, I calculated his grazing units per acre, and for every one he had on the field I put in ten on our reseeded pasture. In mid-May I increased it to twenty units to one on the adjoining field, for the grass was growing away from the stock. In June we took out the stock, left it a week, and baled five and a half hundredweight of good hay to the acre. How well the ‘conpulsion’ of the committee was justified. But why are there still hundreds of acres of old worthless pastures still awaiting their orders?

However there is also another side to the committee's work, and in my opinion of far greater value than the issuing of bureaucratic orders, and that is educating the farmers by means of demonstration farms. We ourselves have learned quite a lot by taking advantage of this opportunity to visit some of the best-managed farms in the county.

This farm was included in the list, and it is rather interesting to note the number of people who have overcome the difficulty of visiting an isolated farm under wartime travel conditions. If the response to the committee's scheme was the same on the one hundred and fifty odd selected farms, it may have been well justified.

Twenty-seven farmers, three from outside the county, ten students, two foremen, two land girls, and three ordinary farm workers took advantage of the chance to see something of our farming, and this is apart from several townspeople and foreigners who heard of the scheme and wanted to see something of English farming.

The committee also did us the honour of describing our farm in their monthly Farm Notes, issued to all the farmers in the county; only three other farms have been written up in a similar manner. As

a fair comment on our farming I think it is worth reproducing, and I acknowledge the source.

‘SMALL-SCALE INTENSIVE FARMING AT ENSTONE

‘The small party of farmers who attended the demonstration at Oathill Farm, Enstone, on the 6th of June, were very interested in the degree to which fertility has been built up and the intensity of production resulting from it, in spite of the naturally poor, stone brash soil.

‘Some striking comparisons were made with the Agricultural Returns for Oxfordshire; showing that, although the percentage of arable to grass has always been higher than that for the whole county, the farm can carry three times the cattle, four times the breeding ewes, ten times the pigs, and twenty-five times the poultry for the acreage compared with the pre-war figures compiled by the Ministry of Agriculture for the county. The output of corn resulting from such heavy stocking, producing some six hundred loads of manure annually, was also impressive, including one hundred and eighty-one quarters of oats from twenty-six acres in 1941.

‘The general balanced system of farming on the holding remains the same in wartime as in peace, except that purchased feeding-

stuffs have been replaced by home-grown cereals and good-quality silage.

‘Every inch of available land is utilized to the full and cattle are tethered in some instances to make full use of odd corners and hedge bottoms and also arable forage crops. All liquid manure from the sheds is conserved and used on the land and it is typical of the system that even the ensilic juices draining from the silo are caught and re-used for making more silage.

‘A five-course rotation is practised. Fallow-corn-corn-one year ley-corn. Every opportunity of catch-cropping is taken. The fallow section, taking a winter-sown forage crop for soiling or silage, or vetches, rye, etc., is followed by kale. Stubbles are also cropped with Westonwolths Ryegrass or Rape. Sufficient manure is made to muck half the arable each year, and every endeavour is made to get it direct from the covered yards to the land, it being the rule that muck carted during the day must be ploughed in at night and never left in small heaps. The rise in humus content of the soil is considerable and instead of fearing drought, as with most thin soils, the records show that the dry years give the highest yields.

‘The aim regarding stock on the farm is to maintain nothing but good-quality pedigree animals. Flocks and herds have been built up from quite small beginnings but Messrs. Henderson have always

kept as their goal the establishment of herds and flocks disease-free and acclimatized to the land.

'Several farmers commented favourably on the skill and knowledge of the staff, which consists of three pupils, none of whom has had more than eighteen months' experience of farm work, yet help to maintain a gross output of some £1,025 per person employed. The system of farm apprenticeship existing here might well commend itself to other farmers, a system whereby keen boys of good education receive a thorough training in every branch, are remunerated on a profit-sharing basis, put in charge of a section of the stock, and finally given every help to obtain a good situation or take a farm of their own.'

Thus does a trained journalist sum up in 500 words that which I have taken many thousands to describe in this book, and all from a brief speech and a walk round the farm.

It is on the question of the powers possessed by the committees that the majority of farmers feel most bitter. While no one can doubt that the vast majority of the decisions are made honestly and fairly, it is a negation of British justice that there is no appeal. It is well perhaps, or symbolic of the times, that the authorities of Lincoln Cathedral have sent the finest and cleanest copy of Magna Carta to

America. Even the tattered specimen at Oxford has been hidden away; it is, I think in my more bitter moments, for fear some farmer should read ‘None shall we depossess, From none shall we take away. . . .’ Star Chamber methods can achieve little, and it is a great pity that a principle of British justice is withheld by the Minister.

The practice of forming decisions from a casual inspection of farms is unfair. I should like to see the Hampshire system introduced whereby the efficiency of a farm can be assessed on a percentage basis determined by a simple bookkeeping system. This would also remove a source of great irritation to many farmers in the classification of farm into ‘A’, ‘B’, and ‘C’. Many resent being in class ‘B’ when all the members are class ‘A’ regardless of the standard of farming they maintain.

If the committees are to be kept in being after the war this Hampshire system alone could bring about a great improvement in British farming. The average output for each district would be known. The average farmer would be class ‘B’. Those with an output of 25 per cent above could be class ‘A’, and those with an output of 10 per cent below the known average could be in class ‘C’. Then if only class ‘A’ farmers were allowed to take farms which become vacant the standard would steadily improve. In the case of young farmers taking their first farm, a fair condition would

be to furnish proof that they had worked on ‘A’ farms for, say, three years. For there have been far too many people taking farms in the past without sufficient practical knowledge or experience. To encourage good farming, ‘A’ farmers could be entitled to, say, three years’ rent if they received notice to quit, ‘B’ farmers to only one, and ‘C’ farmers to none at all. For it must be remembered that it is the man in charge who is classified, because success depends on the farmer far more than the farm. A capable man will so adapt his methods that he will thrive on a few barren acres. Another lacking skill and knowledge will fail with every advantage showered upon him. In my travels through every county in the British Isles, even at the bottom of the slump, there were a percentage of farmers who were consolidating their position or going steadily ahead. There have been in the past far too many so-called ‘farmers’ who by their own ability would never have been more than indifferent labourers, and with the gradual elimination of those who fail to become ‘A’ farmers, a better chance would be given to those more worthy people who should have the privilege of farming the land.

As farmers we have no ‘territorial ambitions’. We have everything we want, but we should like to see a little more Lebensraum for those who are capable of farming the land, without ‘the extension of protective corn subsidies extended to cover all

main commodities produced by the farmer, together with price insurance guaranteeing cost of production and margin of profit', which is so vociferously maintained by certain sections of the farming community.

Is it to be wondered at that we have never joined a union that contends that 'world conditions are such that farming in this country cannot be self-supporting, and the policy of protection and subsidies has not been in operation long enough to bring about improvement in methods of weaker farmers'?

Much has been written about depression in agriculture and that it must be avoided at all costs in the future, but few realize that it is the depressions that give the weaker farmers, such as ourselves, the opportunity to get a start. Slumps eliminate the lazy, inefficient, and sport-loving farmer, together with the man who wants to devote his time to politics and local government, giving a heavensent opportunity to the man from the poorer and harder districts of the north and west to take the better land in the south and east of these islands. Also it is the opportunity of those of us who were reared in the towns, but regard the land as our birthright, and which we are prepared to earn in spite of every difficulty which may be placed in our way. A definite migration can be traced in the tenancies of farms, showing that this does take place. With two or three

exceptions every farm in this district has changed hands in the last twenty years, the old Oxfordshire families being replaced by those brought up in a harder tradition. Ability to farm the land should be the main qualification for holding it, and a man who can take a farm with limited capital in a depression and make a success of it should not be kept out, at the expense of the taxpayer, by a man whose sole qualification is that his grandfather farmed it before him, and who is unable to adapt his methods to the times.

However, that is for the future. For the present we are thankful that we have been able to maintain the stock, which we considered to be our war work. This year there is every reason to believe we shall achieve the 15 per cent extra production called for by the Minister for 1943, and if all-out production is required in 1944 or 1945, we trust our stock and reserves of fertility will be equal to the demand. We are at least gratified that the Minister's policy for a four-year Plan from 1943 coincides with our own for 1939. 'Taking the world as a whole there will be a considerable lack of stock, oils, and fats. We consider the best contribution we shall be able to make to the relief of hunger and distress throughout the world is to go on producing the maximum amount of feeding-stuffs from our own soil as long as this appears to be necessary.' The statement was cheered as the most hopeful yet from the Government. In my more modest

moments I often think the Government would save themselves a lot of worry if they gave me a tinkle on the telephone. Our policy for 1924, described in this book, would be equally applicable to British farming as a whole, for 1944 or any other year, for it has stood the test of time. If each farmer had enough stock to live on and pay his way, using the corn sales for improvements, the fertility of the soil would be maintained by the heavy stocking, while the heavy stocking would provide the population with all the corn, meat, milk, and eggs they require. For stock, through its manure, gives corn, while giving the other food required as animal products. If corn prices drop, then livestock is once more the mainstay of farming, for the low corn prices are more than offset by cheap feeding-stuffs on the farm which is heavily stocked. In the summer of 1943 the Archbishop of York was referring to 'haunting doubts' as to the future of farming in this country. He need have none if the farmers used this period of unparalleled prosperity to put their farms in order, and stock up with healthy, disease-free, and good-type stock. To depend on corn is to live in a fool's paradise, as many found after the first world war.

CHAPTER FOURTEEN

Accounts

Public liability companies are required by law to publish annual accounts and the directors are usually pleased to let the general public know how well they have done in the preceding year; but private traders, and especially farmers, are very reluctant that anyone should know their profits. Is this because they fear their employees and customers will think that their margin is too great? It is also possible that they feel rather ashamed of a small profit, or fear their friends will think they are boasting if they mention a good turnover.

We have sometimes shown our accounts to fellow farmers, and in nearly every case they say, ‘You must never let these figures be published. It would give people, and townsmen in particular, the wrong impression of farming. If an eighty-five acre holding can show profits running into four figures, it will be assumed that large-scale farmers are making a fortune, could pay higher wages, and do not need subsidies or protection.’

We do not know the profits in large-scale farming, but we do believe that if sound mixed farming methods were used, and a really high output maintained, highly skilled and efficient labour should be able to command wages equal to those paid in industry. Unfortunately there is neither high output nor efficient labour on the majority of farms, large or small, and the farmer is caught in a vicious circle. Exhausted land and indifferent labour mean poor crops. Poor crops mean little food for stock, or low return by direct sales. Little stock means little manure. Little manure means poor crops, and the circle is complete. Without a properly balanced system, which keeps labour fully and profitably employed at all seasons, lost time is a ruinous drain on resources, resulting in insufficient capitalization of the holding. Lack of labour, where the farmer cannot afford a full staff, involves the loss of crops, or their serious depreciation, in bad seasons, and so once more the cycle goes round.

Now we publish our accounts simply to show what can be achieved when the farmer has solved the problem of maintaining intensity of production, with fertile soil and good labour; also to confirm our faith in the small farm, for we believe the future of Britain lies in the small farm, and this has been proved over the years. Between 1871 and 1931, while the numbers of farmers and

their relatives remained constant, the paid labourers decreased by almost half. In 1870 more than half of England was owned by less than 150 landowners; by 1930, more than half of England was owned by nearly a hundred thousand small or smallish farmers. The labourers will continue to depart unless the system is changed, and after the war quite a high percentage of those at present on the land will have to be handed over to Sir William Beveridge, while young men will not take up agriculture without better prospects than in the past.

The only solution that suggests itself to me is that the best labour should be given the opportunity of becoming farmers, on capital earned on profit-sharing farms, which can afford to pay good wages as the result of efficient work and high output. Real intensity of production is only possible on small farms, and many of the larger and therefore unproductive farms could be subdivided for the benefit of the workers who have proved their ability to take a farm. This has been done in Eire, and figures shown to me indicate that production per acre has increased by three times, making land profitable which hitherto had failed to pay its way. I do not believe in a free handout to any class, whether farmer or labourer, therefore I suggest that the capital with which to take the new farms should be earned first, for in earning one also learns.

Our output of £50 an acre in 1939, and £90 in 1942, as an example of the productivity of a well-managed small farm, compares favourably with the figures quoted in the press for some of the well-managed large-scale farms.

I have seen the output of the Boreham Estates quoted at £100,000 from 3,000 acres. Probably this is the finest example of co-operative profit-sharing farming in Britain, though it is unfortunate that the original outlay has not been disclosed; this would prove whether it has been a business proposition from the start. It will be noted that the estate has an output of £33 per acre.

Turning to large-scale private enterprise, figures quoted by 'Peterborough' in the *Daily Telegraph* on the 5th and 15th of June 1943 show very much the same return, but falling output as the acreage increases. Other figures are:

The Hiam Estates, in the Fens, 7,000 acres, £220,600.

Mr. Rex Paterson, Hampshire, 11,000 acres, £200,000.

Messrs. Parker, Norfolk, Lincolnshire and Leicestershire, 30,000 acres, £500,000.

Now the best of the figures can only show one-third of the output of Oathill per acre. Two of these estates are, of course, on some of the finest and richest land in the country. Mr. Paterson would probably have much poor land, and here the pre-war output also

quoted, of £28,000 to £30,000 in 1939, shows a turnover of just over fifty shillings per acre, against our pounds per acre. If anyone should contend that our output is not within the reach of small farmers, I am indebted to Mr. J. F. Cheesewright of Holbeach, Lines., who has the case of the smallholder very much at heart. In his district there are several thousand acres of smallholdings, many farmed by ex-service men in units of ten acres. After twenty-four years, 70 per cent are still there, only 2 per cent have been failures. Many own a tractor and a full set of implements, nearly all have a car, and some are on the telephone. He estimates the profit to be at least £15 an acre, and inquires if the 500-acre farmer makes the same. This, of course, is on naturally good land, though in our experience it is possible to do as well on poor land, well farmed and heavily stocked. It is known that the average output per acre was £7 in pre-war days, and it can be calculated from other figures published that this has now risen to £11—that is gross output, not profit—for the whole of England and Wales, so it will be seen there is ample scope for improvement to bring the general average up to the standard maintained by the smallholders in Lincolnshire, or by stockbreeding on this poor, stony Cotswold land.

As a pupil I saw that profit in farming depended on quick turnover and intensity of production. Our figures over the years

have proved it. We have been able to show steadily increasing output, and satisfactory profits even in the depression of the 1930s, so it would appear that our methods have something to recommend them, and if generally adopted might well prove the salvation of English farming and our country. It would also be starting from the right end. There is nothing like successful farming to give a man confidence in himself. Far too often in the last twenty years I have heard some farmer say, 'The Government ought to do something about it'. How often must our friends have heard 'What we are going to do this year', possibly *ad nauseam,* but have they ever heard us say 'Let us wait and see what will be arranged at the Ottawa or Sydney Conference'? No! We have been far too busy getting on with the job of breeding better stock or growing finer crops, and most people who study the accounts will agree that our policy was justified.

So deep has the rot taken hold of agriculture that I saw headlines in the *Farmers' Weekly* last year, 'Ought Not Something To Be Done About Us?' Reading on I found that the paper had arranged for a group of competition-prize-winning children to visit one of the best Farm Institutes for a short period; and the headline was how one of the children summed up their reaction to the experience, for they had enjoyed themselves and would have liked to take their

place in agriculture. The answer is, ‘No, my dears, if you cannot find a good old-fashioned farmer to teach you, study the theory and science in your spare time, save your money, and take a farm in due course, then you are not worthy of the finest farming country in the world. A college or farm institute might give you the training which, if you were very clever, might earn a position as a County Organizer, starting at less money than a Corporation bus driver, but only on the land itself can you learn

That just as the flowers of the garden,
Spring up from the dark, cold earth,
It isn’t the smooth, or the easy,
That will make you a man of worth.

Now turn to the accounts. We have always adopted a fixed method of valuation—and not on the market value of the stock. For the market value system shows a large profit—on paper—in a good time, and a heavy loss—again on paper—in a bad slump; whereas by valuing at a fixed sum for the livestock as shown below, the profit does not appear until the stock is sold, and then it is a cash profit, not a paper one.

FIXED VALUATIONS

Sheep.	Lambs 40s., 2-tooth ewes 60s., 4-tooth 70s., 6-tooth 60s., full mouth 50s.
	Rams. Lambs at cost less £2 per annum depreciation.
Cattle.	£6 up to six months, £1 per month up to two years.
	Bulls at cost, less £5 per annum.
Poultry.	Hens 5s. each, Pullets 7s. 6d., Stock Cockerels and Cocks the same. Chickens at cost.
Pigs.	Sows £10, Boars at cost less £5 per annum depreciation.
	Store pigs 6d. per lb. live weight.

In the case of dead stock we take the previous year's figures (less any sales, plus any purchases) less 10 per cent for depreciation. This does, of course, make a very low figure in our current accounts, for we have many machines which have depreciated 10 per cent per annum for twenty years, but would make more than new price if sold to-day. For example, a machine costing £25 when we started, now comes into the valuation at £2 18s. 4d. but would be considered very cheap at £20 now, for it has been kept in good repair and well painted in the original colours. For that reason no one must think that he could set up the same amount of machinery and poultry appliances for the same figures as we show.

In the following statement of accounts I have taken three typical years: 1924, our first financial year; 1932, the bottom of the agricultural depression; and 1942 for the current position, for it may be assumed that no one would wish to read through all the figures for twenty years; but I may say they have shown a steadily increasing output and profit over the whole period.

VALUATIONS

	Sheep	*Cattle*	*Horses*	*Pigs*	*Poultry*	*Dead Stock*
	£	£	£	£	£	£
1924	56	143	91	13	89	169
1932	62	176	28	21	118	247
1942	68	457	18	46	293	945

The 1942 valuation figures are very low indeed as compared with the current market prices, but in the slump of 1932 our fixed prices seemed almost too high; still, we have kept to them throughout the years and no doubt they will come into line with market prices in the next slump; then we shall be saved the despair which many farmers experienced of finding they had perhaps worked hard for a year and apparently lost a lot of money as well. What comes in we will have earned, with no extra depreciation to write off.

To turn to the sales, I have again taken the figures for the same three years, but there are two points that need explaining. The sale of horses for £54 in 1924 is accounted for by the fact that we were working the farm with horses and it was possible to make a profit by selling a good one; since then we have changed over to tractor cultivations and keep a cob for taking round poultry food and other light work.

The pig sales in 1942 are very low, but for a short period we were keeping the minimum number in accordance with Government instructions, and to make better use of feeding-stuffs. In 1941 sales amounted to £942, while the figures for 1943 will be well up again as pigs are now wanted, while we have not reared so many pullets owing to the dropping of the Domestic Poultry Replacements Scheme, which left us more food for pigs.

It will also be wondered why corn sales have not improved as much as stock, but in 1932 we consumed the greater part of a good harvest, because the corn prices were too low. In 1942 we sold only wheat, as required by law, keeping back the oats for stock-feeding.

The high miscellaneous sales in 1924 were accounted for by firewood out of the hedges.

The experienced farmer will wonder how we managed to spend £1,103 on feeding-stuffs in wartime with the strict rationing in force; the explanation is that we used large quantities of feeding potatoes, weed seeds, and other waste products. In looking down the column I see whey products £35 17s. 4d., which can be taken as an example. This is a waste from cheese-making but a first-class food for pigs and poultry.

The next surprising figure is £721 for livestock in the same year; this is explained by the fact that we spent nearly £500 on day-old chicks. Every one of these chicks was hatched from an egg laid on this farm, but as we had already agreed to supply nearly all our hatching eggs to a well-known hatchery for the year, by the time the Ministry brought out their Domestic Poultry Keepers' Replacement Scheme, we continued to send the eggs to the hatchery and bought the chickens back. We were, of course, paying them a profit for a job which could be carried out here, but as we would have a fair margin on the pullets, they were entitled to their share. In any case we have always honoured our agreements, and consider the satisfaction of a customer of far greater importance than a profit, an ethical principle of business which has always paid us well. In 1943 the expenditure on chickens was saved as we could give fair notice

that we were keeping back a considerable number of eggs for our own machines.

The miscellaneous expenditure also seems to be high, and some may think that they should be entered under different headings, but I give the list in detail as it does illustrate the way in which small expenditures mount up in the course of a year, and these are apt to be overlooked by those starting farming.

	£	s.	d.
Implement repairs	104	1	4½
Milk Marketing Board levy	1	0	10
Fuel	83	16	2½
Carriage	73	2	0
Threshing and baling hay	33	9	8
Vet. and medicines	13	15	6
Licences	20	0	0
Registration fees—calves, cattle, pigs	21	3	6
Bull licence	0	5	0
Rat catching	5	0	0
Sack hire	4	6	3
Market expenses	0	18	9
Accountant’s fees	1	0	0

	£	s.	d.
Postage	2	0	0
Telephone	4	18	1
Advertisements	10	17	10
Other expenses	24	17	4
	£404	12	4

While in 1924 we were paying tithes, rates, and interest on loan, amounting to £115, the equivalent of a high rent for such a derelict place, by 1932 the land had been derated and the loan paid off. It should be mentioned we were responsible for two loans, working capital, and interest on the mortgage with which the farm was bought. By the time we had paid off the first loan we regarded ourselves as established tenant farmers, our landlord being the mortgagee. Then when that was redeemed we became the owner-occupiers. It is often said that a mortgage is a bad landlord. Any sort of landlord was better to us than none at all, and we certainly never kept him waiting a day for his rent, for we did not want to have it called in and incur the heavy charges of finding another mortgage. It is now interesting to recall that our bank manager did not consider us a good enough risk for a mortgage, though the manager at the

bank where my father had done business for many years gave us a first-class reference, saying he ‘had watched us grow up and we were worthy sons of a mother who had shouldered the responsibilities of an insolvent business, on the death of the father, and every creditor had been paid in full’. I mention this simply to show how one may be helped or handicapped in business, and aspiring young farmers should choose their bank manager as carefully as a wife.

To return to the figures. In due course we redeemed the tithe, leaving only the rates, an item of approximately £8. It is for this reason that we have not included the assessed rental in our figures, as in the early days we were paying a bigger sum in interest than we would have paid as tenants as rent, whereas in later years it should, perhaps, be included, but we look upon it as part of the interest on our capital.

Now we turn to profits, which include our own labour and also interest on the capital sum invested in the holding, amounting to £124 in 1924, £581 in 1932, and £4,484 in 1942. If the reader thinks he can check these figures by deducting the expenditure from the sales I fear that he will be a little out, as I do not give the opening and closing valuations; but the 1942 figures, which to some may appear a misprint, have been checked by the Agricultural

Economics Department of Reading University, who show the farm profit for 1942 to be:

Farm Profit	£3,989	15	0
Family Labour	409	0	0
Family Income	£4,398	15	0

To this sum I have added the assessed rental of £85 which they treat as an expenditure, making a total profit, or perhaps, return for capital and labour would be a better word, of £4,484. The figure clearly shows what may be achieved by having a thorough grasp of the underlying principles for successful farming, which I have laid down in this book, and which may be summarized in three words: Work, Muck, and Thought.

CHAPTER FIFTEEN

Conclusion

And now having told you the history of Oathill, all that remains is to conduct you round the fields and buildings shown in the pictorial map. It was late July when the artist drew the picture and so I describe the farm as it was on that day.

As you came in over the rough common you will have driven over the road we built, probably without a thought, for all farms should have a road to them, but you would have received a very different impression had you ploughed through the swamp in the early days. The house you pass on the right is the lodge my brother built in the early days of the war.

While you did not think about the road, the white gates swinging easily on their hinges may have caught your eye; these are the results of a queer idea we hold that it is cheaper to repaint a gate every second year than to have it rot or be broken by dragging on the ground in a few months. There are sixteen gates on the farm, and now that good, seasoned wood is so scarce and dear we are glad we have looked after them.

Though in all probability the gates stood open, for the calves you see grazing near the dutch barns are confined with a single, thin strand of wire, electrically charged, and which they graze up to, but do not touch. We are great believers in electric fences; we have six units, and a great length of wire. In the past we often tethered the Jerseys to make the best possible use of the grazing, for it trebles the number which can be carried; but now we only tether bulls, for the rest of the cattle can be folded like sheep with the aid of the electric fencer. For the sheep also the conventional fold of hurdles has disappeared, but these require two strands of wire to keep them in, and they have to learn the lesson that they must not touch the wire before they grow their wool. The saving is considerable for although we can set hurdles at the rate of one a minute, a roll of sheep netting in twenty minutes, six hundred yards of electric fence can be erected in an hour.

On the side of the road you saw potatoes growing, a fair crop for the season, chiefly interesting for the fact that they were planted by Land Girls from the local hostel, achieving in seventeen and a half ‘woman’-hours what normally requires twenty man-hours, and the work was done thoroughly and well, for you see the plants evenly spaced and straight in the rows. I worked with them, always helping the slowest, and cheered them on. The potash manure was very

dusty and unpleasant, but I told them it was the basis of a famous beauty preparation ('Not that any of you young ladies would need to use it'), but the next day one of them said that another had washed her face in the water she used for washing her jumper the night before. This shows what a little psychology will do to help on with the good work, for they no longer worried if the manure made their eyes water or faces burn. Normally we do not need extra labour, except for threshing, but as we were held up by rough winds we made use of their labour, being glad of the extra help, for potato-growing is a wartime necessity which interferes with our normal routine.

Above the potatoes you saw the staff hoeing. I mean hoeing, not leaning on their hoes or gazing round the countryside. They probably laughed and chattered as they competed against each other, but the trained worker seldom stops before he reaches the end of the row, and you would see or hear nothing of the three fatal 'S's'. They are hoeing kale, not such a good crop as we would like, but a good wet day would transform it, as it is a full crop, but rather late, for it had to be redrilled on account of the ravages of the turnip fly.

Arriving at the farm, you saw the house standing behind its old spruce firs, which remind me of the mountains, but are probably the

relics of some long-past Christmas, for they have grown little in twenty years. The lawn and flower garden are the special care of my sister; while though we manure and dig the vegetable garden my mother plants and weeds it, defying any weed, slug, or insect to appear, and we are seldom short of salads or vegetables, to say nothing of herbs and soft fruits.

Adjoining the house is the orchard, which we replanted in our first year, and although the soil is not well suited to apple-trees, it yields a fair crop in a good season such as this.

Walking through the buildings, for only the youngest calves are in, I trust you see them neat and tidy. They are at least well whitewashed inside, and camouflaged green outside; so well that a pilot once landed his machine in the belief that this was an aerodrome. Unless the trailers and machines are at work they will be under the cartshed or dutch barn, for we hate to see them standing out. I should perhaps mention that, in common with other farms, we have a rubbish dump, but we have planted a screen of poplars and willows round it, so there is no need to fall into the common error of the visitor who congratulates us on the fact that we have not got one. We can even put nettles to good use on this farm so you will not see any clumps in the rickyard, which in fact no longer exists, for we ploughed it in our early days and it has grown an average of

twelve loads of mangels on one-fifth of an acre ever since. It took two years to clear, digging up old cart wheels, traction-engine strakes, pitchforks, parts of machines, and other interesting relics of bygone farming, very dangerous to our horses. We have thought it well worth while, for the tons and tons of old straw, chaff, and weeds which must have rotted down over the ages, make it the richest land on the farm; and this year it promises to grow the proverbial pound of onions to the foot on the six or seven rows we have put in.

And now you pass from the main buildings to the pig-house, which even on a hot July afternoon is quite a pleasant place, for with its insulated walls and roof, and ample ventilation, it is as cool as anywhere on the farm. The brooder-house is empty, the later-hatched chickens being out in the poultry folds which you will see later.

From there we take you to the Spring Field, for here rises the water that supplies the buildings and every field on the farm. It is free from pollution, for we have fenced out the cattle and planted trees round the spring, and it never freezes or runs dry. It is still running several hundred gallons per hour at the end of this long dry spell.

In this field you see nine large poultry-houses which accommodate between them over a thousand hens on free range.

Twenty yearling Jersey heifers gather round you, and it's no use waving your stick at them, for they do not know what a stick is! Any one of them will permit you to place your arm round its neck and read the number tattooed in its ears.

The one you like the look of is 'Enstone Beauty', out of a heifer which gave 800 gallons with her first calf, and has register of merit blood on both sides.

As you walk on they come sedately behind you, for you may be a potential customer, and very early they learn quite a lot about salesmanship. You think they look well on bare pasture? They should; for they are getting green vetches from the arable.

From there you pass through another white gate to Ducks Piece, where there are four milking cows, and fifteen in-calf heifers. Once more they gather round, for what is more annoying than trying to look at a beast that keeps about a hundred yards away all the time? These heifers show more promise for they are autumn calvers—so earnestly required by the Milk Marketing Board—and we trust they will maintain the reputation of Oathill in the herds of the producer-retailers who usually buy from us. We shall want their calves, of course, for our job is to breed and rear good cattle, not to milk them.

By stepping over the electric fence you come to the poultry fold units used for rearing pullets. Each one holds forty to fifty young birds, and is the finest system of rearing we have ever found; they get fresh ground every day and never fail to show their gratitude in the crop that grows after them.

The sheep which have been grazing round the fold units, now gather to meet us, which seems unusual at this time of the year; but in this long drought mangels are being fed again, carefully stored from last winter, and well justifying the trouble in such a season as this, for a sheep never says no to a succulent root when the grass is brown.

Then from here to the next field which is Radford Hill, the largest on the farm. The stubble the tractor is ploughing is vetch, oat, and ryegrass mixture. It gave us grazing last autumn, silage in May, hay in late June, and is now being ripped up in the hope that a thunderstorm will enable us to take a crop of rape before the autumn corn is planted. If not, we shall at least have the benefit of a bastard fallow, for it will be some time before it comes in roots again.

And now across to the oats. Quite useful? Yes. Unless the good thunderstorm we want for the rape comes and knocks them all down, for they are already leaning from their length of straw and

weight of grain. Well-manured light soil never seems able to hold up a crop like clay.

And now down to the re-seeded pasture on the steep bank below, where graze the two horses. This too is brown, but at the first wet day will pay tribute to Sir George Stapledon, when we shall see the green shadow creeping over it.

And now back to Garden Ground to see the wheat, which this year is not up to the Oathill standard. It came direct from the National Institute of Agricultural Botany, and was grown under contract. The crop is no reflection on the Institute, but an error of judgement on our part. It had everything a wheat crop should have at planting, and came too well, for we could not make up our minds whether to graze it back with sheep in the spring or not. We left it, the broad flag was attacked by rust, and we have probably lost eight bushels to the acre. On the other hand, had we grazed it and then had a long dry spell, we would have checked it that way. It is one of the most difficult problems to decide on this land, for another farmer who did graze back this year has since told me that he regretted his action. One very old, observant, and experienced farmer once told me that in fifty years of farming he had grazed six times; on three occasions he was glad, and three times he was sorry.

Generally speaking, we make one mistake somewhere on our arable each year, however careful we are to try and remedy it in the future.

On the steep ground below the wheat you see more poultry-houses, and these birds will have the run of the stubble and ploughing, until we are ready to plant the winter vetches, for we never leave the land idle a day longer than is necessary.

Then we pass to the workshop, which in normal times was a hive of industry, but the power is now only used for grinding corn and other waste. The building also provides useful storage and any sort of farm or estate repair can be carried out, for it is fully equipped to make anything in wood or metal. Here also is the office where the records are kept.

And now to the house for a cup of tea, and to meet the staff, for the pupils are the farmers of the future, and therefore the most valuable and important stock on the farm; it is their youth and energy which have contributed so largely to what you have seen to-day. You have seen nothing very sensational in our methods, just good straightforward mixed farming and useful stock, and a full use made of the land and our opportunities. These are well within the reach of anyone, and if you farm, or intend to farm, your little bit of land as well, or a little better, then our blessings go with you, for we

believe you will achieve more for Old England than all the farmers in Bedford Square or Whitehall; for did not the Poet of the People say:

Gi'e fools their gold, and knaves their pow'r,
Let fortune's bubbles rise and fall.
Who sows afield or trains a flower
Or plants a tree, is more than all.

CHAPTER SIXTEEN

Postscript or Ten Years After

After printing a great many impressions, the type for *The Farming Ladder* has been worn out. As the demand for the book justifies the resetting of the type, the opportunity has been taken to bring the story up to the early part of 1955; when we can look back on thirty-one years of farming on the same holding and see what has been achieved by following the guiding principles laid down earlier in the book.

An agricultural author is apt to lay himself open to criticism owing to the permanence of the written word and the ever-changing ideas in the industry; yet there is hardly a line I would change—although there are a few statements I might qualify—and there is no sentiment expressed on farming as a way of life to which I do not still adhere. Authorship has brought wider contacts : journalism, broadcasting, lecturing, filming, commentating, judging, visiting and advising. Interesting as all this has been, it only brings home to me how much I love my real work, and I find myself grudging the time when these things take me away from my farming. Yet, while

these activities must always take second place with me, it would be wrong not to admit that I have enjoyed them, quite apart from the new and wonderful opportunities they have given me to travel, to learn, to teach, and to be of service to others, which more than compensates for the effort involved.

The writing of this extra chapter gives me the opportunity of thanking people who have written to me; and also to reply to some of my critics and reviewers.

Now the kindliest of my critics say I make farming sound so easy, and that I do not reveal the heartaches and disappointments which have to be overcome. This also aroused the ire of those whose published accounts of their own farming indicated that they had made a sorry mess of it—they were very cross indeed with me and wrote some very bitter reviews and articles.

I can only plead that from my youth I accepted the toil and the hardship, the wind and the weather, as the common lot of those who choose to work on the land. Time convinced me that the rewards justified the efforts involved, and so I wrote to bring fresh faith, hope and confidence to young people entering the industry; and I have been deeply moved by the number who have testified to the help this book has given them, many going so far as to say that it has inspired them and that they regard it as their farming Bible.

There are no secrets of success in farming. An independence on the land is open to all who can think, learn and work; it only remains for writers like myself to point the way. The troubles and difficulties of the amateur farmer are all of his own making, for he has neither learned his craft nor understands the business of farming. It is not a bit of good blaming the Government or the labour you employ—the answer must lie in ourselves.

I think I received the most valuable lesson of my life while I was working as a farm pupil. My master gave me several unimportant jobs to do and then went away for the day. A little later some horses broke out and I had to go out and get them back and repair the fence, and in consequence did not complete the work I was set to do. When I offered this as explanation, my master admitted it was a good excuse but said how much more creditable it would have been if in spite of the time spent away I had achieved what I had been set to do. I probably looked a little hurt, for he went on to say that I was planning and training to be a farmer; and if I failed there would be half a dozen good excuses—weather, bad seasons, poor prices, accident, illness, disease, ill luck and almost anything—but how much more credit there would be to me if in spite of all or any of these things I succeeded. On thinking it over, I knew very well that I could have done all those little jobs expected of me and more

besides. I might have had to miss my tea or work a little late—little sacrifices compared with those I was prepared to make to become a farmer. How often in after years I have been tempted to make an excuse when fresh demands are made on me, yet the words of that wise old farmer come into my mind, and I am glad later that I made the effort.

Many who have read my book sneer: ‘The man who never made a mistake.’ I did in actual fact admit several; but if I made fewer than some people there must be a reason for it. It may lie in the ability to grasp basic principles and turn every opportunity to account: an inborn characteristic like artistic ability or a mathematical mind. On the other hand, I am inclined to think that any measure of success I achieved, a town-bred boy, with no special ability, capital, friends or influence in the industry, is simply due to the fact that I had to try so much harder; the effort became habitual and so I have gone steadily on, while others with every advantage showered upon them have just drifted along expecting someone else to do the hard work, and the National Farmers’ Union to do their thinking for them. The difference between those who succeed in farming and those who fail is never very wide or very great. Interest, application, enthusiasm will always tip the scale in favour of the man handicapped in other ways. Second-rate ability with

enthusiasm will always go further than first-rate ability without. Enthusiasm means believing in your work and living for it. To an enthusiast, work means happiness however hard and exacting the way may be. The art of being happy lies in the ability to find happiness in common things, in the exercising of skill, in the application of knowledge. It is childish I know, but as a physical weakling who has seldom weighed more than 126 lb., I still take the same pleasure in picking up a hundredweight of potatoes and putting it upon another man's back, or carrying an eighteen-stone sack of wheat across my shoulders, or mounting a horse without using the stirrups, as I did when I first taught myself to do it thirty-five years ago.

Everything in farming really depends on an attitude of mind. Some people appear lucky, but if we are honest with ourselves we must admit that luck is mostly what happens when preparation and opportunity meet. If we expect nothing from it, the chances are it will find us so prepared, forewarned and forearmed, that shallow observers will always deem us lucky. In all my life I have never known a man who was master of his trade, careful and prudent, and strictly honest in his dealings, to complain of bad luck. Good character, good habits, and industry, are impregnable to all the ill luck this world ever dreamed of, proof against every misfortune,

including, I believe, legalized robbery by a state that caters for the lazy, the selfish and the idle, and penalizes the efficient, thrifty and industrious. Richard Lovelace wrote:

Stone walls do not a prison make,
Nor iron bars a cage;
Minds innocent and quiet take
That for a hermitage;
If I have freedom in my love,
And in my soul am free,
Angels alone that soar above
Enjoy such liberty.

Had he lived three hundred years later he would have probably written:

Here within the Welfare State,
Where spivs and drones are saved;
From doing any work at all
From the cradle to the grave;
The man alone is free who loves
Creative virtue's way,
Yet dares to reach a hand to those
In clutches of decay.

Far more important than luck is the ability to cultivate the power of close observation, not only for the doing of the job and the details of our craft and calling but for the wider issues. The recognition of wisdom, and the application of its teaching, will carry a man a long way in farming, for wisdom permits nothing to be true which will not be so for ever. If you can go further and perceive relationships then you will flourish as an original genius, for that is the one thing which truly great men have always held in common. Sir Isaac Newton in studying the earthward passage of the moon, or as we are sometimes told, an apple falling in the orchard, grasped a fundamental law of the Universe. Charles Darwin asked himself: Suppose that Nature pursued her way according to the same principles as those which guide the farmer, and the answer was the

Law of Natural Selection—something that changed the whole scientific thinking of the world. We have had men like Robert Bakewell, Thomas Bates and Robert Elliot in farming, who could see so clearly that which was hidden from their contemporaries, and even I suppose from 90 per cent of our farmers to-day. They could see what was wrong and sought deliberately to remedy it.

I knew of this from my reading, even before I took up farming, and so the practice of looking for relationships has always stood me in good stead. I have used it all my life. When I was learning farming, I always inquired who were considered to be the best farmers in the district, and all about them. Opinion was sometimes divided, but I soon found a relationship in their methods or their attitude of mind. They had usually had quite a modest start, were conservative in their farming, had no special advantages; but all shared some trait of character although each might not notice it in the others. What of the failures? They also shared the same characteristics: almost invariably they had inherited capital or a good estate and had every advantage of education; but personal extravagance, wine, women and horses proved their undoing.

I naturally studied my relationship in connection with the industry and how my ambitions were to be achieved. My generation, after the First World War, in the roaring ‘twenties, were

discrediting everything which had gone before. Everything the last two generations had done was thought to be absolutely dead wrong. Study, hard work, application and spiritual values were to be thrown overboard, and replaced by new freedoms, science, and Government assistance for farming. It was to be seen in every walk of life. It was unfashionable to get married or rear a large family. The young women wore thin, shapeless, tight clothes, and cut off their hair to defy the Edwardians; and the young men

laughed at their elders when it was suggested that there was nothing like work, muck and thought.

But I have said that wisdom allows nothing to be true which will not be so for ever. I would be guided by the wise old men. The Victorians had done the things I wanted to do, they had done them by the means I was able to use, and so my way was clear. I could be twenty or thirty years ahead of my generation by applying the simple guiding principles of those who. had gone before. One did not have to be very clever or intelligent to know that the population of the world was steadily rising, the cultivatable area was static or declining—therefore the future must depend on a more balanced system of intensive farming. A steadily expanding economy, in a world which would demand more and better food. A better use of land, of capital and of labour, than I could see all about me as my

neighbours tumbled their land down to grass, sacked the workers, let the cottages to week-end visitors, spent their time hunting and shooting, and moaning for the Government to do something about it. They laughed at my brother and me for working when there was nothing to work for; yet, believe me, there has never been a year in the last thirty in which any farmer, making the best use of such opportunities as presented themselves, would have failed to have a satisfactory return for capital, management and labour.

It is because I have so much to be thankful for that I put so little on the debit side. I do not grudge the passing years; they have been filled with contentment and reward. I believe that everyone is happier for having some aim and object, some duty, some illuminating idea, some inspiring work to spur him on; for without, life would degenerate into a dull monotony of days and years. To fail to express some achievement would be less than grateful to the Creator who gives us the means with which to work, the love of effort, the undaunting challenge of events, the childlike appetite for what next, and that delight in the joy of living that makes us farm as if we would live for ever, and live as if we would die to-morrow.

We in farming have so much to be thankful for, and to share with others, when all real and wholesome pleasures are available to those who work in contentment and in peace. To watch the corn grow and

the blossom set, to learn the skill of spade and scythe; to work, to think, to plan; to love, to hope, to pray; those are the things in which we must strive to make more clear the way.

When we ponder on these things, and working farmers like myself have always had ample opportunity for reflection, we realize that the most important factor in the relationship between work and human happiness is the creative instinct. The industrial age has denied it to millions, the lack of it may be responsible for the general apathy and neurosis of our times, but in farming we have something which is truly creative and for its own sake worth while; for farming is not only a means of earning a living, it is a way of life, a calling, a craft, a science, a business and, above all, an art.

I think it was Ruskin who defined art as a creative imitation of Nature. If that is so, then farming must be the most truly creative of all the arts, for the farmer imposes a dynamic, if fractional, influence upon the processes of nature in which like begets like and new forms are evolved. The musician and the dancer thrill us with their interpretation of fleeting movements; the sculptor and the painter express in various inanimate mediums colour, light and form; but the farmer has all the resources of Nature with which to mirror that which he loves best in an art which has for its basic order, its essence unity, and for its soul the very spirit of creation.

I believe that a farmer should be an artist rather than a scientist or a business man, for it is the ability to perceive relationships and experience phenomena with super-normal intensity which is the basis of creative work. As the poet is distinguished by his mastery of expression, so is the agricultural craftsman recognized by his economy of effort in the application of skill, which is the poetry of motion; and so must the farmer's claim to merit lie in his ability to use all the resources of Nature, in reverent imitation of God's work, as he superimposes a balanced, if artificial, symbiosis upon the face of Nature and in the service of mankind.

Some people are gifted with a feeling which enables them to live in harmony with Nature, for their rapid and sympathetic interpretation of the changing needs of living entities gives them a grasp and understanding of life's pattern which enables them to co-ordinate all the natural forces that influence their being. In balanced judgement or extrasensory perception they are in tune with their environment.

When a farmer is concerned with basic principles, identifies himself with his land, prepares himself with study, thought and prayer, and regards each day as something of infinite value in the completion of his life's work, then there is a bodily, mental and spiritual adjustment which brings about a fundamental harmony

with environment, and many mistakes and errors will be avoided, while the opportunities will be grasped and accumulate.

Whatever shortcomings I may have in other things, I believe I have a natural gift for farming, a love and interest in life that enables me to see and feel a little deeper. I have never made an important decision without seeking Divine guidance; and I am always conscious of the great Unseen Power that rules my life. I may have been blessed above others (even through the terrible upheaval of war I was left to work quietly in peace), and I feel it would be very ungrateful to grumble and complain when I have had so many wonderful opportunities to work on from simple beginnings, observing, comparing and recording the methods by which a certain measure of success may be achieved.

Let no one think that I am unsympathetic to those in trouble and difficulty; it has been my privilege to advise and help many in distress by putting at their disposal the accumulated experience of a lifetime spent on the land. Compassion is not only learned by suffering, it is more often the fruit of happiness. To farm well is a good thing. To help others, if they are worthy of it, will always justify the effort involved.

The most rewarding task of all is to teach, advise and help those who have to make their own way on the land. A great French writer

once said that to fill minds with knowledge and hearts with understanding was to share with God the spirit of creation. I have found it of absorbing interest to study those who are learning the craft, science and business of farming; to watch them develop physically and mentally in a suitable environment, and to see them go on and prove, each in a different way, the guiding principles which have been learned here. Of fifty-four pupils who have completed their training with me, thirty-six now have farms of their own, and we have every reason to be proud of them. If the effort was not rewarding in itself, as indeed it has been, it led me to the greatest of all human experiences—to be happily married—for my wife was a student here. We married ten years ago, and have been blessed with four happy, healthy children. Three boys and a girl—the farmer's family—in years to come, the cowman, shepherd, tractor driver and dairymaid! In actual fact, of course, I hope they will be able to choose their own careers, as I did, and trust they will be as happy in their choice.

I quite expected to give up my pupil system when I married, and return to using ordinary farm labour, but my wife insisted that it was too good to lapse, and offered to manage the house, providing the necessary accommodation could be provided; and she has so

possible to rebuild the farmhouse to her own specification, incorporating every labour-saving device, comfort and convenience for a large family of up to a dozen people.

In an age when many women are worn-out in looking after one small house or flat, it may be of general interest to describe how it is organized and arranged. My wife wrote an account which was published in The Farmer and Stock-Breeder, and which is given here, in her own words, by kind permission of the editor.

'When I married, my mother-in-law lived in the farmhouse, which had three bedrooms, two front rooms, and dairy and kitchen at the back. Two farm pupils had one bedroom, so when our first infant arrived we built ourselves a bungalow and were very happy.

The arrival of our fourth child was rather crowding us out of the bungalow, and as my mother-in-law, in the eighties, was feeling the strain of looking after the pupils, we decided to enlarge the house and all live together again.

'We had great fun with the plans. Grandma would keep her sitting-room and bedroom. We really needed four pupils, as the stock on the farm had increased and the demand for training never lessened. With Grandma having one front room, the other became virtually my husband's study, so the common room for children and

‘The four-ovened solid fuel cooker and a radiator at the opposite end warm it—I insisted on central heating—and this arrangement has the advantage that the teenagers, who are always hungry, can cook a snack or make toast and a hot drink while listening or watching. If they wish to get away from the family—the eldest of whom is seven—their bedrooms are warm enough to read or write in, and each has a bedside lamp.

‘A most important point to me is that the chimney from boiler and cooker goes up through the middle of the house, all the heat is conserved and helps to warm the bedrooms and keeps them dry.

‘We do not sell milk, so we have butter to make in our dairy, but about a quarter of the space houses an enormous deep freeze. This keeps the family supplied with meat and fruit, although with such a large family I bottle some and can about 250 tins as well. At glut times we store butter in the deep freeze for the lean times

later. We are about 80 per cent self-sufficient for food, as we grind our own wheat and bake our own bread.

‘I have a washing machine in the scullery and we do all the washing for the household and a married couple with two small children, who now live in the bungalow. Drying is not very much of a problem as we wash every day.

There is a drier over the boiler and one in the boot room, and I can hang more things upstairs in the bathroom, where the towel rail is heated by the hot-water supply. We have two airing cupboards—one against the chimney and one designed as such.

'The drier over the boiler is mostly used for hanging outdoor clothes. The outside of the boiler is no hotter than the outside of the cooker, and wet clothes are draped all over it without fear of their scorching. It is a joy to have everywhere dry and warm; only in the very coldest weather do we need to have all the radiators on.

'Last year the boiler, which is the automatic feed type, used ten tons of coke, but we do all the washing at home, and it supplies all the hot water used for calves, chickens, etc., on the farm.

'In the kitchen we have a large refectory-type table with a washable surface which comes up clean and bright even after the worst that paint and Plasticine can do. The lower part of the kitchen has a sofa and easy chairs where all can sit round.

'Houses like this one, where the students are not on top of you all the time and do not make too much work, solve the problem of living-in workers, and by living with the farmer they learn so much more and get a better picture of how all their jobs fit in.

'I think it is essential to have two bathrooms if strangers are to live in. Our boy students use the downstairs one, and the girls the

other, and the latter also have a basin in their room. It is much easier for them to organize baths among themselves than to have to consult us. There is plenty of hot water all the time.

'When I am putting the children to bed the students usually get their own evening meal. This generally consists of eggs, bacon, any leftovers, toast or cereals. They know where to find the frying pan and where everything else is kept. Our sink is in the scullery and the washing up can be piled in, to be done next morning while minding the washing machine.

The large cooker, with its four ovens, makes light work of cooking for so many, and the kitchen, scullery, and dairy is full of built-in cupboards. A bounteous supply of home-produced food makes planning meals easy. With a few hours' daily help I can manage very well and enjoy our resident staff and young family.

'The whole house is painted in a plastic emulsion coating, and the tile and composition flooring take kindly to being washed and polished by an electric washing, scrubbing, and polishing machine. We are well satisfied.'

I should add that my wife spins the wool from our own sheep, and does a great deal of knitting as well, mostly while watching television. She devotes a lot of time to gardening in the summer,

makes fruits and flowers grow where they have never grown before, and still finds time to play with the children.

My pen is not equal to a fitting tribute to my wife, although I write her a poem on each anniversary, whether it be wedding, birthday or Christmas, which seems to please her. Women have an infinite capacity for bringing happiness into a man's life, and when we see the elaborate study and ingenuity which they display in pursuit of their aims, we can have no doubt of their capacity for the most herculean undertakings. I said earlier in this book: successful farmers, like millionaires, seldom smile. Perhaps the greatest lesson my wife has taught me is not to take life too seriously. The last ten years have been the happiest I have ever known, and I realize that without a wife and family I would never have completed my life, however successful I might have been as a farmer or an author. On the other hand I do not regret the early struggles, they were the foundations on which we have built, and give a keener appreciation of that which has been achieved since.

The greatest results in life are usually attained by simple means and the exercise of ordinary qualities. These for the most part may be summed up in these two—common sense and perseverance. I like to think we have found them in our farming, as we have found joy and happiness in our private lives.

Looking back to 1943 we can record steady progress in every department of our farming. From peace to war and from war to peace no drastic change was necessary, we had only greater opportunities for expansion based on what had been achieved before. As I outlined in our original plan, there was nothing very clever or intelligent in our farming. We took the value of rotational farming as proved, accepted the five-course rotation of the Cotswolds as being suited to the soil and district, and superimposed upon it pigs and poultry. Before the war cheap and abundant feeding-stuffs built fertility to more than offset the low cereal prices, while large numbers of livestock could be profitably kept. Later, cheaply produced home-grown food, on accumulated fertility, balanced the scarce and expensive feeding-stuffs that could be obtained. This policy not only maintained, but built up the level of production which had been achieved. In thirty-one completed years of farming, gross output will have increased thirty-one times: from £7 per acre to £214, and yet with a completely balanced system of agriculture based on rotational farming. By concentrating our effort on the same acreage with which we started, my brother and I probably enjoy an income comparable with farming a holding ten times the size, ample justification for our belief in intensive rather than extensive farming and from which we have never departed. We

have the additional satisfaction that we have not denied others the opportunity to farm in a country where the opportunity is limited to the number of farms available.

While guiding principles are the basis of success, valuable lessons are learned over the years. The diverting of the concentrated feeding-stuffs to pigs and poultry in the early days of the war taught us that sheep and cattle can maintain profitable production on high quality roughages and actually improve in health and breeding capacity. The feeding of something over a ton of cakes and cereals to obtain a pre-war average yield over the whole country of under 500 gallons per cow is shown to be appallingly wasteful. It is possible to average over 600 gallons on grass, high quality silage and hay, while obtaining a long breeding life, freedom from disease, and comparatively low cost production. If the food which hitherto was wasted on the dairy herd is skilfully fed to pigs and poultry any farm should become profitable. A ton of food will feed a breeding sow and her litters to eight weeks old, or keep a score of hens for twelve months. And when pigs and poultry are kept in that ratio to dairy stock, then not only does gross income rise out of all proportion to what might be obtained from feeding concentrates for milk, but the accumulating fertility, providing utilization of the pig and poultry manure is insisted on, soon makes it possible to keep

more cattle than would normally be expected on any given area of land. While on many farms one finds five acres to the cow, and concentrates bought, here it is possible to keep the equivalent of one cow to the acre, and on what would normally be considered naturally poor soil, solely by the building up of fertility.

An interesting sidelight on the building of fertility has been, in recent years, a steady reduction in the rate of seeding of the principal farm crops. I recorded in the book that in our early years we had found that substantial increases in seeding rates had been justified by increased yields. The time came when close observation suggested that considerable saving might be effected by economy in this respect. From 1948 we have cross-drilled all our cereals and at a steadily decreasing rate. With more room for the development of each individual plant it has been possible to get a full yield of wheat, up to 36 cwt. per acre from 80 lb. of seed. With this practice it is, of course, essential to be able to judge the weather and ensure that all the cultivations will be completed. Rain that held up operations when the field had only been drilled one way would put a farmer in a difficult situation.

While the basis of good farming must be found in the soil and its management—we are virtually independent of artificial manures now and the use of selective weedkillers has not been found

necessary—part of the steady increase in production must be attributed to mechanization and the installation of electricity. Three tractors, with a full range of implements, are in regular use, while there are over forty electric motors on the farm. Every possible means, consistent with the original balanced system of farming, has been employed to increase production.

In a period in which costs doubled, selling prices only increased by 15 per cent, yet the profit margin remained the same—due to increased production. The trend of increased costs and lower prices which still continues can only be offset by increased efficiency. A farm never stands still, it is either going forward or going back. The standards of farming which gave us a good living twenty years ago will not give us such a good living today.

While mechanization has been paid for by increased production, it has also been justified by substantial tax reductions which have been allowed to encourage the re-equipment of farms since the war. Everything is now modern and up to date, and we are quite independent of contractors and casual labour. We even have our own Danish threshing machine, which can be worked by four people, at our own convenience, and does a job of work comparable with the old-fashioned English machine and organization at a fraction of the cost.

Our buildings have been enlarged, giving more and better accommodation for the stock, and we have now sufficient storage to carry a whole harvest of sixty tons of grain in bins, and keep all our implements, roots, silage, hay and straw under cover. We did not restart our Corn Bin business after the war, but the building has been utilized to house up to 2,000 fattening cockerels on the deep-litter system. A new and fully equipped workshop has been incorporated in the farm buildings so that any repair can be executed on the spot, and we can still build anything in wood or steel that we may require.

The farm is the background and the soil the foundation of our business—pedigree stockbreeding. It has been our life's work, our business and our pleasure to breed better stock. First, come our Light Sussex poultry. For forty years we have worked with one strain of one breed. The absorbing hobby of our childhood has grown into the most important branch of our farming and main source of livelihood. Twenty generations of the original stock have passed through our hands. For thirty of the forty years which cover our experience with poultry-keeping we have been able to provide the consistent environmental conditions under which progress in breeding livestock can be measured.

Year by year we have sought improvement. We have long realized that poultry are kept commercially for the economic conversion of coarse grains and other products of the land, not required for direct human consumption, into more acceptable and valuable food in the form of eggs and poultry flesh.

While other tests of efficiency are difficult to assess and compare, this basic economic fact is easy to measure. It is found by dividing the total production of eggs and poultry flesh into the tons of food consumed during the year. At the highest levels of efficiency our strain of Light Sussex poultry can convert food into eggs or flesh on an equal ratio of three to one. By these standards over all the years we have been farming we have tested the value of any improvement we have sought to make. For economic conversion of food we have found our stock to be unsurpassed by any we have tested, here or on other farms. Over a period of thirty years of consistent management and constructive breeding, the food required to produce an egg has fallen by nearly 50 per cent.

Many factors contribute to the whole. Steps in production are achieved by better housing, feeding and management, but health and stamina, good hatchability, rearability, egg-laying capacity and longevity are genetical qualities which must be bred into the stock. Even during the years when a lower plane of nutrition reduced

production, the inherent capacity was developing and strikingly illustrated when it was possible to return to higher quality feeding-stuffs after the war.

The tools of the breeder are selection. Constant elimination of individual birds, and even whole families, so that they may never have the opportunity to reproduce their kind, brings an improvement by the weeding out of undesirable qualities; while the mating together of those with the desirable qualities tends to fix the true factors and finally evolves a true-breeding strain. It is a slow process; even with a closed flock and progeny testing the improvement is only in the nature of 5 per cent per generation, and could be all undone by a single out-cross.

Striking results can be obtained by out-cross. In fact, most of the winning pens in Egg Laying Trials are bred by this method, and selected by observation calculated to have them coming into lay at the right moment. In the same way nothing more than hybrid vigour accounts for many of the sensational claims made by poultry breeders for complicated crosses between strains and breeds; but if they are bred from again give invariably disappointing stock.

Those of us who have grown old in poultry-keeping remember how the late Mr. William Cook commenced mating Minorca cocks to Black Rock hens, and then clean-legged Langshan cocks to the

half-bred Minorca-Rock hens, and produced the Black Orpington. The stock had great utility qualities to begin with, but entirely lost its position in competition with the others over a few generations.

As far as it is known, and our experience confirms, it is only the patient long-term policy which achieves stock with true-breeding qualities and which give consistently improving results over a period of years—and incidentally provides the material for those who wish to do likewise, or for commercial reasons will use the out-cross to boost production in one generation by sex-linkage or whatever it may be, and replace the stock year by year.

I think we can claim to be pioneers of the large-scale closed-flock system. We had many critics in the early days, but in recent years it has become widely adopted on the advice given by geneticists, who in turn admit the genius of the early breeders who used exactly the same methods. How thankful one should be to life, if he finds but one path which future generations may be glad to follow:

Enough of something from our hands has power To live and act, and serve the future hour.

Apart from the improvement that may be brought about by breeding, the closed flock is one of the greatest safeguards against disease.

Apart from Fowl Pest, which usually starts on farms where the standards of management and hygiene leave much to be desired, and which is epizootic in character, the disease which has caused most concern is Fowl Paralysis, a nervous affection marked by impairment or loss of motor or sensory function of the nerves, which usually affects birds just as they come into lay. Severe losses occur when heavy expense has been involved in rearing and at a time when the birds should be coming into full and profitable production. In some counties it is said that eight out of ten birds sent for post mortems show this disease. Opinion seems to differ as to whether it is inherited or acquired at an early age, but some strains of poultry seem to be immune or resistant, and this quality can be built up or maintained in a closed flock, and where no fresh stock of any description are brought on to the farm.

While it is always contended that acquired characteristics are not inherited, stock does seem to become acclimatized to a farm in succeeding generations, and one can predict almost to a day, regardless of the season, when production will rise and fall. There is also some evidence to suggest that stock, and especially young chickens, make better growth when fed on a fairly high percentage of home-grown corn, which is itself grown on the accumulated fertility brought about by heavy stocking with poultry and other

stock. It results in better growth and feathering, and a higher rate of economic conversion, which can only be attributed to skilfully harvested and stored grain—or the inherent fertility of the soil—when tested against that which is normally sold as poultry wheat: with the germ baked out in artificial drying.

Crop and animal farming is linked by the mystic bond of manure, and I suppose I could quite a score of examples of the inter-relationship on a balanced system of husbandry. In recent years we have been told that poultry derive valuable accessory factors or trace elements from dried cow manure. We have noticed for years how the hens systematically scratched out all the pats on the pasture as soon as they had dried. We never need to use a chain harrow. On the other hand, running a hundred birds to the acre trebled the stock-carrying capacity of the fields as far as sheep and cattle were concerned. It is sometimes said that sheep encourage wireworm, for the click beetle favour their droppings in which to lay their eggs, but poultry following the plough dispose of wireworms, and we do not need to use the selective killer, which may destroy many other valuable organisms present in the soil, but as yet not fully understood. Another interesting example of what may come from making the best use of the farm's resources, is that liquid pig manure mixed with waste peat moss from the poultry houses, used

primarily for its manurial value, is a flea-beetle deterrent and if we can put a dressing on the field within a few days of drilling the seed any brassica crop is safe. It is not only that the crop quickly gets away, it would appear that the smell of the manure hides the scent of germination, for we have seen the fly thick on charlock in neighbouring fields and our root crops untouched.

The farmer who is guided by Nature is saved a lot of expense and does not have to learn so many of the new techniques. I am told that it is not only necessary to use selective weed-killers, but you must plan a 'rotation' of weed-killers, for being selective they kill some, while others by the lack of competition flourish and get away. Then after a few years, you must spray your land with certain chemicals to counteract those you have used to kill the weeds and which are now having a depressing influence on crop yields. Spraying must also be done at the right stage of growth and air temperature, and must be followed with favourable weather, or you may have to do it all over again. Yet, as far as I can see, if the original cultivations are timely, the corn drilled and established in good time, and a spring-tined weeder put over the crop at the right moment, then all the other troubles and expense are saved. Our weeder was paid for in a single season on what we might have spent on selective weed-killer in a single field, and we have had the use of

it ever since. The machine can do up to fifty acres a day if necessary, and under no circumstances could it damage soil structure or beneficial organisms. It only requires judgement on the spot: is it dragging out the seedling weeds and leaving the strongly rooted corn unharmed? Our practice of cross-drilling the cereals, mentioned earlier in this chapter, makes this method of weed eradication even more effective.

Can I find virtue in anything which is new? Or must I stand firmly in the ranks of the old-fashioned farmers? In my farming experience I have seen great changes: the tractor has taken the sweat out of arable cultivation; the electric fence has made possible a far better use of grassland; ensilage and tripodding hay (which are not new, but have been reintroduced) are invaluable; the new strains of grasses, fodder-beet, and the knowledge that lucerne can be easily established and grown on a much wider range of soils, are themselves sufficient to revolutionize farming.

It is often said that traditional, rotational farming is a bar to progress. I have never found it so; a good test for a new method is to ask oneself can this be incorporated in the old well-tried system and why has it become necessary? How often we find that a farmer has actually added to the unit cost of production in an endeavour to be right up to date. There are always new opportunities, but somewhere

in the background should be the settled plan, the long-term policy, and the shrewd appreciation of that which will last.

I described earlier in this book how we had to make do with a cross-bred flock of sheep, mating Suffolk rams on Border-Leicester ewes, although we would ‘have preferred to breed pure. The opportunity came to change to a pedigree flock towards the end of the war. The Scottish sheep were getting very dear, the rail charges were prohibitive on account of the long journey, and so we looked for a breed nearer home and with a great future. The Clun Forest was outstanding, it combined the hardiness of a mountain breed with the economic conversion of the best, it had a valuable fleece, was fairly prolific, and would improve in size, even on our naturally poor soil, when brought from its native heath. At that time they were comparatively cheap, and we were able to sell out our old commercial ewes locally and go to Craven Arms Sale and buy young pedigree stock, from one of the leading breeders, for the same money. Similar sheep in recent years have been sold for twice and three times the money when others belatedly decided they must go into sheep again, having given them up during the war.

My brother and I have had both the pleasure and the profit of the long-term policy which believes that livestock is the keynote of British farming and that there were wonderful opportunities in the

breeding of better stock, not only for the direct economic return, but in the market for more and better animals.

Our full breeding stock was carried right through the war, in spite of every discouragement in official quarters, and we were in a position to meet the urgent demands from overseas. We sent the first pigs into Malta, we sent them to Russia, Czechoslovakia and Greece. We sent cattle on the six-weeks' journey round the Cape to Kenya, before the Mediterranean route was opened again, and we sent them by air to Southern Rhodesia. Nearer home large numbers of reared pullets went to the Channel Islands and to France where the poultry stocks had been wiped out. In England, too, there was a good demand: farmers who had changed over to corn growing, or the more far-sighted of them, saw the red light and started to change back to stock. There were also many newcomers to farming, and we had the satisfaction of supplying when with a nucleus of good stock and seeing them build on. In the immediate post-war period seventeen new Jersey herds were founded on our stock; more than a hundred farmers set up with our pigs, while I have no record of the total number of poultry flocks we had a great many new customers during those years and whose business for day-old chicks, reared pullets or stock cockerels has been retained.

On the whole we prefer the home market. There are so many rules and regulations concerned with export, so many delays through lack of transport or muddled organization, that there is always a sigh of relief when they are off, and we say never again! But then, Yugo-Slavia, or somewhere, is lent a £1,000,000 by the British Government to buy pigs, and to have our share while the going is good, my brother has to prepare documents in triplicate, write out extended pedigrees, involving two hours for each pig, and knowing full well that not the slightest use will be made of all the accumulated paper when a thousand of fifteen hundred pigs are got together from all over the country and shipped away in plane-loads.

It is a strange world. Foreign buying of every pig we can spare twice a year, while British farmers pay fantastic prices for imported pigs from another country, which in some cases have brought with them disease, when we have already too many breeds of our own, and can produce bacon from our best to compete with any. Any farmer prepared to spend half the money on really good large White or Welsh pigs would have the pick of the whole country, and providing his management was good, could expect 100 per cent grade ‘A’ returns from the bacon factory.

On the whole I am glad that we do not depend on export; sooner or later Foot and Mouth Disease brings all that trade to a standstill,

and we will be glad that stock has always been reserved for the home market. In fact, when there is a big demand from abroad, the shortage of available stock at home means that quite as good a price can be obtained with a lot less trouble.

To build a big business on a small farm may or may not be a praiseworthy effort, but the lesson of Oathill is important for those who would go even part of the way, for it shows the cumulative effect of the little more invested in the farm; the time saved which has been better spent; the conservation of energy which has given the opportunities for thought and study. These things make all the difference between 'Heartbreak Farm' and the one which is at its summit of agricultural equipment, output per unit of land, efficiency of labour, quality of product and reduction of cost, and where at the same time a reasonable standard of leisure and living may be obtained. From there on we learn to discover those fields of production in which we have the opportunity to compete successfully with those farmers of the world who have developed their ability, agricultural production and marketing plans to almost functional perfection.

Have we made any contribution to knowledge? Our basic rules for the financing and financial success of a farm, and indeed to measure the best use of land, labour and capital, have been generally

accepted by many agricultural economists at home and abroad. I restate them:

1. Your Gross Annual Output must be equal to Capital Invested.
2. Your Gross Annual Output must be equal to four times the Labour Charge.
3. Your Gross Output must be equal to twenty times your Rent charge. In recent years we have added:
4. Mechanization must not exceed 15 per cent of Gross Output. or, Mechanization and Labour must not exceed 40 per cent of Gross Output.

My brother and I have shared our knowledge freely in our writings. More than ten thousand farmers and others have visited the farm in organized parties over a period of twelve years, and to see for themselves what has been done from simple beginnings.

We have been able to show that the small mixed farm can compare favourably with any for output per acre, production per person engaged, and capital involved. It has also enabled us to show that once a certain level of efficiency has been reached, that the drudgery usually associated with the small farm is eliminated, and certainly the monotony inseparable from any large-scale or

specialized undertaking. It is, I like to think, a service to the community to show that it is on the comparatively small farms that these things can best be brought about. One of the oldest and most bitterly contested issues of agricultural policy concerns the question of the most advantageous and desirable size of the agricultural unit. Agriculture is a biological industry, we cannot change climatic conditions, the topography or the geographical position of our farms, and only within very narrow limits the chemical and physical properties of the soil. In other words, we must make the best of what we have and where it is. Farming may be defined as the art of the closest adoption of the aims and methods of stock and crop production to the natural, economic and social environment. Being bound so crucially to extensive space and a biological time schedule, agriculture is unable to create the conditions favourable for large-scale industry. When it comes to efficient, low cost, high unit production, no substitute has been found for the personal care and devotion of the individual farmer to his animals and fields year in and year out. Just compare output of milk per acre on any small family farm in this country with the large-scale production on the Downs of Southern England with all their publicized bail-milking, and you will see why the small man holds his own.

In the same way, the cultivation of the soil requires the continual locomotion of the tools and implements, and since the men, the machinery, and the sources of tractor power must be provided for, it is not sensible to extend the area to be covered by one machine, or to build bigger machine units.

Farming in small units, with diversified production, which is essential to make the best use of the land, requires management in addition to the performance of labour. It therefore presupposes a certain degree of initiative, skill and intelligence, as well as a willingness to work, to take a risk, and stand on one's own merits. All good human qualities which we should seek to foster in our race.

Now let us look at farming as a whole, as shown by the Agricultural Returns. We have about a million people engaged on the land, 30 million acres, or one man to 30 acres. To carry it further, it would appear than on an average each man would be responsible for 14 acres of arable, consisting of 7 acres of corn, 3½ acres of roots and the same under temporary leys. Then 10 acres of permanent grass and 6 acres of rough grazing. The stock per man would be 2-3 cows, 5 other cattle, 6 breeding ewes and 6 followers, 4 pigs and 70 head of poultry. I am not suggesting that the country should, or could, be split up on that basis, but none of us would

have to work very hard to manage such a unit, nor would we have a very satisfactory return from it. When we see how much land and stock is managed by one man on many farms, it means that there must be a great many idle hands and acres in our farming as it is at present organized; and while more than half the land is farmed by one-sixth of our farmers, over 90 per cent of the stock is kept by farmers with less than 100 acres, which shows how important the small farmer is in a country which demands a high standard of living based on animal products. With increasing pressure on the land for many purposes, more intensive farming must be the keynote for the future, and even our small farmers must make better use of every acre. We see, and have seen, a tendency for a greater diversity in the ownership of land. In 1870 more than half of England was owned by less than 150 great landowners, to-day something like 150,000 farmers either own or are in the process of buying their own farms. Here at least agriculture has made progress: the old agricultural landlord who served the industry so well is finished, or exists only as a charitable organization. Let us hope that something better will grow out of the ashes of the past. The greatest security any nation can have is a property-owning community. I would like to see every farmer a freeholder. It makes a big difference if a man has something to work for and to care for. To

say that only the State has the means to rebuild and equip our farms is ridiculous; any farm which is fully productive can earn the capital necessary to restore it, and build on for future requirements, as my brother and I have proved on our own holding.

In conclusion this chapter must only confirm that which I wrote nearly twelve years ago; it merely carries us a stage further in proving that our original plans were on the right lines, and if I was starting again there is hardly anything I would change. I believe now, as I did thirty-odd years ago, that technical efficiency will see a farmer through and he can very largely ignore the political side of farming.

What of the future? I hope to be spared to see a few more harvests in, to rear my children and see them established in life, and to be thankful in the end that it has been possible to spend my life as a farmer, the most worthwhile of all occupations, for as someone wisely said, ‘Without our farmers all the saints, philosophers and sages could not, would not, as such exist.’