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978-1-107-62950-9 - The Farmer's Animals: How they are Bred and Reared:
With Sixteen Photographs

Frank H. Garner

Excerpt

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CHAPTER I. THE USES OF FARM ANIMALS

NOBODY taking a country walk among the lanes and fields and farms of England will be surprised to come across cows or horses, sheep or pigs, cocks and hens, or goats. Such stock are in fact so commonplace and expected that most people rather too easily take them for granted.

It may at first seem almost too simple a question to ask why animals are kept on farms. Nevertheless the whole of this first chapter will be needed to give the proper answer, which is by no means simple, or perhaps so obvious as it seems.

To begin with, we should remember that farm animals are not native creatures of the countryside at all; and a simple thought about the reason for gates and fences, and yards and fields, would prove as much. They are kept by the farmer at much cost and trouble to himself. He and his men care for these beasts with hard work in all weathers; yet if anyone should ask the farmer why he takes so much trouble he might very well reply with a laugh: 'I don't keep the animals; I expect the animals to keep me.' A farmer has to live and to pay his men, and certainly he makes part of his living by breeding and rearing and selling his *stock*, which is the general name for farm animals: he keeps them for the rest of us; we see them again, in fact, as food on our tables. But though the first part of this chapter will be about what animals produce, this is by no means the whole of the story, as we shall see.

WHAT ANIMALS PRODUCE

Meat. All farm animals in Britain except horses provide us with meat. In ordinary times about half of the meat eaten in Britain is produced here; the rest comes from

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overseas: beef principally from the Argentine; mutton and lamb from Australia, New Zealand, South Africa, and the Argentine; bacon and pork from Denmark, Holland, Canada, and some countries of Central Europe; and poultry mainly from Europe also.

English meat comes from stock kept in many parts of the country. Sheep, for instance, are to be found in all districts, though they cannot be fattened for meat where soil is poor, because sheep are generally fed on natural foods, and poor soil will not produce crops good enough.

Cattle are fattened for beef either on the good grassland in the Midlands and on the marshes found up and down the country, or in yards in arable districts, where they can be fed on crops grown near at hand, such as roots, hay, straw, and different grains.

Pigs are not so widely kept as sheep and cattle. They are often fed upon 'waste foods'—skimmed milk (left over from cream and butter making), whey (left over from cheese making), potatoes not good enough for human food, and poor grain. Poultry and pigs are found in much the same places, because for the most part they are fed on the same kinds of foods.

Milk. In the British Isles when we speak of milk we generally mean cow's milk, though there are other countries where sheep or goats are the chief sources of milk. In peace time two-thirds of all milk produced in England is sold and used as milk; the rest is used for cheese making, for fresh cream, for condensed and dried milk, for ice-cream and other milk foods, and for butter making. Milk is a good food; it is easily digested because it is naturally produced to nourish growing young animals; it contains almost everything that is needed in a food, and is particularly suitable for children. This is why children are now encouraged to drink milk at school.

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MILK: WOOL: LEATHER

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In recent years, for the sake of better milk, British farmers have been urged to pay great attention not only to the health of their cows but to the cleanliness of cowsheds, churns, and buckets, and the hands and clothes of the milkers. This improvement on dairy farms has produced better milk and has been followed by great efforts to persuade British people to drink more milk; and, in fact, more milk has been drunk as a result, but there is still much room for improvement. In England,¹ on an average, each person drinks about one-third of a pint daily; in America the average quantity is 1 pint; but in Switzerland, which holds the record, it is 1½ pints per person. Large quantities of butter and cheese were once made in the British Isles; but because prices were bad, less and less has lately been made; just before the war only one-tenth of the butter eaten in this country was made here, and not quite one-half of the cheese.

It is a strange thing, hard to explain, that in some parts of the British Isles very little fresh milk at all is bought, condensed milk in tins being used instead. Possibly some people like condensed milk better because it is sweetened, and is easier to buy and store. In warm weather fresh milk will not keep for more than a few hours, but milk from a tin does not go sour for several days.

Wool and leather. As everyone knows, sheep are kept for their wool as well as for their mutton, though not all wool from British sheep is suitable for making into clothes. Sheep that live in cold and exposed places grow a wool that is too coarse for clothes, and this is used for carpet making. The wool of all other sheep is suitable for clothes, the poorest or coarsest being used for suits, and the best or softest for underclothes. The finest kind of wool however does not come from British sheep at all,

¹ These three figures are for 1932, by 1939 the figure for England and Wales was 0.42 pint.

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but from a breed of sheep called Merinos, which live in Australia and South Africa. Merinos are not as good for mutton as the sheep of British breeds.

Wool makes very good clothes; it wears well, and it keeps the wearer warm because it is a poor conductor of heat.

Sheep are usually shorn here between May and August, when the coldest weather has gone; they are not generally shorn until they are at least one year old (p. 33). Of the wool used for the making of clothes in Britain nearly one-half is produced at home.

Leather for the making of shoes and gloves and clothes also comes from animals. The skin from cattle and horses is used for making stout leather for the soles, and the skins from sheep and from young cattle and horses, which make soft pliable leathers, are used for the softer 'uppers' of boots and shoes. These thinner leathers are also used for gloves, and for coats to keep out the cold winds. Not much leather comes from pigs, because when pigs are killed for bacon or pork the skin is generally left on the meat. Bacon rind is the skin of the pig.

Animals for work. Although tractors and lorries are now widely used on British farms many of our farmers still depend on horses for working their land. On a few British farms oxen are still used, as they were long ago, but they are not as good as horses for ordinary farm work. People particularly interested in engines may sometimes be heard to prophesy that working horses will disappear from all British farms in the near future; but that is a mistake. It is true that an ordinary tractor will do as much work as four or six horses—bigger tractors will even do the work of more than this—but many farms in this country are so small that all the work can be done by a few horses; certain kinds of work can best be done by horses anyhow, so the small farmer will therefore con-

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ANIMALS FOR WORK

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tinue to keep horses rather than a tractor. On grassland farms there is little work that can be suitably done with a tractor, and much that can be done with horses; and on farms that grow fruit and vegetables, horses are still found to be more useful than tractors. For these reasons the working horse is not likely to go out of use on British farms.

The commonsense of it is, of course, that horses and tractors each have their special advantages. For hard work such as ploughing the tractor is very good, but the land must be dry and firm so that the tractor wheels can hold the ground and neither 'spin' nor sink too deeply.

The tractor does not get tired as horses do. If a farmer has been delayed with his ploughing he can catch up with a tractor, because he can work it for many hours each day. Sometimes tractors are worked all daylight and, if there is a moon, at night as well. Of course the tractor-driver gets tired nevertheless, and at such times the farmer will arrange for two men to drive the tractor in turn.

On big fields, and where the soil is light, the tractor is better than the horse for such work as drilling, rolling, and harrowing. Some farmers fix 'trains' behind the tractors; that is to say, one tractor will draw a drill, followed by several implements such as rolls and harrows. But such 'trains' can only be used where the field is large, because turning on the headlands is slow and difficult, and would be far too frequent in small fields.

Finally, whenever much produce or manure has to be taken long distances over roads between fields and farm buildings the tractor fitted with rubber tyres is better than horses, because it can take big loads quickly.

Horses are better than tractors for working small or odd-shaped fields; they can be used for hoeing roots and other light cultivations; when a farmer keeps live stock, and must feed them throughout the winter, horses can

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take hay, roots, and straw to the stock in buildings or on grassland, and can conveniently haul away the manure from yards and boxes; in short, on all the occasions when farm carts are needed, horses are likely to be preferred to tractors.

How live stock make good use of farm crops.

Grass is the largest single crop grown in the British Isles, yet grass as a crop is of no use at all to human beings. Cattle, sheep, horses, and goats make the best use of grass (and of foods made from it), but both pigs and poultry can also eat a little. The only way to make grassland useful to human beings is to keep on it animals that can be used for food and work.

In 1939 in England and Wales there were 23,388,947 acres of grassland, and in Scotland 13,543,146 acres. This includes not only the good fields with rich grasses and clover, but also the poor mountain grass that will only support sheep or goats. Of course, animals will eat grass as it grows in the fields; but in the winter there is not enough growing to satisfy them.

Grass may be preserved for feeding to stock in the winter in three different ways: as hay, as silage, and as dried grass.

Hay is made by cutting grass in the field, and letting it dry in the sun for several days. The time it takes to make hay depends upon the kind of grass, and upon the warmth and dryness of the weather.

Silage is made by cutting the grass and putting it while it is still green and full of sap into a special structure called a silo. There are many kinds of silos, made of wood, or concrete, or asbestos, or wire and paper. All are cylinders, and they may be anything from nine to twenty feet across and from eight to forty feet high. Silage as a food for stock has been more and more used of late years.

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It has been found that the silage is improved if molasses (or treacle) is added to the grass at the time the silo is filled.

Dried grass as a food is an even more recent discovery. It is made by cutting the grass young and drying it by heat in a kind of oven. Of course dried grass costs more than hay or silage because of the expense of fuel for the ovens, but if good young grass is dried in this way it forms a food that is equal to some of the best cattle cake.

Many farmers grow crops like mangolds, turnips, swedes, marrow-stem kale and some kinds of cabbages to feed to cattle, and sheep, and to a lesser extent for feeding to other farm animals. In war time these foods are given in greater quantities than in peace time. It will be noticed that those crops which are known as cleaning crops are grown with two objects in view, the first to supply food for live stock and the second to give the farmer an opportunity of cleaning his land.

On the arable land, clovers and grasses, trefoils, sainfoins and lucerne are all grown individually, or in mixtures for stock feeding. These may be treated in the same ways as described for grassland in the above paragraphs.

Crops of peas, beans and oats are grown principally for feeding to live stock but, of course, special varieties are selected for feeding to stock and others for human food. These crops can be given to all farm animals, provided they receive proper quantities and ratios. A further advantage of growing peas and beans is that these crops have the power, common to all the pea family, of taking nitrogen from the air and in time enriching the soil they grow in.

By-products used for animal food. The main reason for growing cereals (wheat, oats, barley) is, of course, to get the grain; but the straw that remains after threshing is valuable too, and is not wasted. Straw is a by-product of every farm that grows corn. Straw can be

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sold for use in paper-making, or for packing; but the straw that remains on the farm is fed to animals or is used as bedding for them.

The best of the grain threshed out is sold for human food; but the small broken grains (amounting to 10 per cent of the total crop) are again a by-product, and are used as food for various farm animals.

When sugar-beet is grown, the roots are cut off and sent to the sugar-beet factory, where the sugar is extracted; the green tops are a by-product, and can be fed to cattle and sheep and, in limited amounts, to pigs. With such crops as potatoes or cabbages and brussels sprouts there is always a proportion that is not good enough to be sold for human food; the small potatoes are saved and fed to pigs or poultry, and the waste from green crops is fed to sheep and cattle. The stems or vines of peas grown for market as food make excellent food for cattle. They can be fed green, or as silage, or as dry straw. These by-products of the farm, which might otherwise be wasted and thrown away, are thus profitably saved and put to good use by the farmer who keeps live stock.

Even when the produce of a farm—say grain, or sugar-beet, or animals for meat, or milk—has been sold to be made into human food, parts of it become by-products in course of preparation and are bought back by farmers for food for their animals.

At the flour mills, bran and 'middlings' (or 'weatings') are made from those parts of the grain not used for flour. Bran is fed to all farm animals, often as a medicine; and the middlings are given mainly to pigs and poultry.

At the sugar-beet factories, after the sugar has been extracted from the root, a pulp remains. This is sold either wet or dried, as an animal food. Generally it is fed to cattle, but horses, sheep and pigs can also eat it, and so can goats and poultry, though only in smaller quantities.

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BY-PRODUCTS USED FOR ANIMAL FOOD 9

Treacle, another by-product of sugar manufacture, is also fed to cattle, and is also used in making silage.

At the butter factory, skimmed milk is a by-product; and at the cheese factory, whey. The better qualities of these can be dried and used for human food, but the second-rate skimmed milk and whey are given to calves, young pigs, and poultry.

At the slaughter houses, where animals for meat are killed and the carcasses prepared for the butchers' shops and so for the table, the by-products include dried blood, bone flour, meat meal, and meat-and-bone meal. The best qualities of each of these by-products can be made into foods for animals, chiefly the quick-growing animals such as pigs and poultry, and to high-yielding dairy cows. The by-products of slaughter houses not fit for foods are sold and used as manure.

All of the by-products so far named have had their origin on the farms; but there are industries which, while they do not get their produce from English farms, can nevertheless supply the farmer with by-products useful as food. The most important of these are the various oil cakes. In the manufacture of oils and fats certain seeds or nuts are crushed and the oil is pressed out of them. The meal that remains is compressed into cattle cake. Linseed, cotton-seed, earthnut, palm kernel, and soya beans, are all used in this way. These oil cakes are excellent for feeding to cattle and sheep, and, in limited quantities, to horses and pigs.

Waste from the fishing industry—scraps of fish and bones—is made into fish meal, which is a valuable food for pigs and poultry and for young growing animals such as calves and foals.

Animals enrich the land. By means of animals, then, we see that man is able to turn to his own good use

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not merely the grass crop which he grows for that purpose, but all kinds of products that would otherwise have to be treated as waste. But the waste products of the animals themselves are also of great value. As everyone knows, dung, which is what is rejected and dropped by the animal after food has been digested, is given back to the land as manure.

There are two ways in which the waste products of animals can be used to enrich the land: the animals may either be kept indoors (or in a yard) and the dung they produce carted out to the land; or they may be kept on the land itself so that the droppings enrich it where they fall.

When live stock are kept in buildings, that is in sheds or yards or 'boxes', the dung and urine will be mixed with the litter provided for bedding. Straw, bracken, sawdust, wood shavings, and peat moss are all used as litter; farmers believe that straw makes the best manure, and shavings and sawdust the poorest. The quality of the manure depends upon whether it comes from yards in the open, or from sheds under cover; because in the open it is washed by rain and the more soluble parts are washed away. Quality also varies according to the kind of animals; poultry manure is much richer than cattle manure, and manure from fattening cattle is richer than that from dairy cows.

Farmyard manure produces the best results in light soil, and gives the most profitable money returns from market-garden crops. On heavy soils, though manure is not essential as it is on light soils, it also brings good results; and even on Fen soils already rich in humus (which is the decayed remains of plants), farmyard manure produces a surprising improvement in crops.

In the other method by which animals are used to enrich the land, the animals live out of doors and the manure they leave behind falls directly to the land. For