HOW TO HANDLE SHEEP *for* PROFIT

By Frank Kleinheinz

A word about
SCOTCH SHEEP
FEEDING
By John Clay

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BY FRANK KLEINHEINZ
SHEPHERD AND INSTRUCTOR IN SHEEP HUSBANDRY
AT UNIVERSITY OF WISCONSIN
AUTHOR OF "SHEEP MANAGEMENT"

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WE OFTEN hear the problem discussed whether there is any money in sheep raising. Some claim that there is, and others that there is not. Those who say there is money in sheep are evidently of the kind who love sheep and have studied their full value and have given them the proper care and their due share of feed. The others who say there is no money in sheep probably do not possess a liking for sheep and do not understand their proper care and management and perhaps are poor feeders. Sheep are valuable on the farm for many reasons. In the first place it does not require much capital to start in with sheep. They do not need such expensive buildings to house them in. Furthermore, in the keeping of sheep, the labor question is abolished in a large measure, as they require far less labor than other classes of live stock during spring, summer, and fall when the farmer is very busy with his outdoor work in the field. As weed destroyers, sheep have no equal. No one will deny that the droppings from sheep, spread so evenly over the land on which they graze, are of far greater value than those of any other kind of live stock. Is not the sheep so rightfully called "The Golden Hoof"? These words have their proper meaning. For the man who understands the business, there is a good profit in sheep raising. The sheep industry is bound to become more profitable, because sheep cannot be raised in such large numbers now on the western ranges as was done in the past, as these ranges are gradually being cut up into smaller farms, and also because the beef production is declining by years, while the population in this country is steadily increasing. Some may say that there is not much profit in sheep because the wool has gone down in price since

the tariff has been taken off. This, of course, is true of the sheep which are raised mainly for their wool, but the mutton breeds do not suffer much under this tariff, for mutton should always be the first consideration and wool only second as a by-product.

Establishing a Flock

It is unwise for anyone who is not thoroughly familiar with sheep husbandry to start in with a large flock and consequently make a failure of it. It is far better to start in with a small flock and then gradually increase the number as one's knowledge of the care and management enlarges. I would suggest to those who wish to enter this work not to spend a large sum of money in buying pure-bred, high-priced sheep as long as at our leading markets some young, fairly good ewes can be bought for reasonable prices, which can be graded up with a sire of one of the leading mutton breeds.

The Selection of the Ram

Many bad mistakes are made by flockmasters in the selection of a ram for the ewe flock. An old and true saying is that the ram is half the flock, and this fact should be deeply impressed upon the mind of every sheep breeder in the country, if sheep husbandry is to be raised to a higher standard than it is today. The first step toward improvement is the use of a first class sire. The best ram is none too good for the flock. As long as breeders are satisfied to use an inferior scrub ram, they cannot expect to improve their flocks. Many breeders, however, have the wrong idea that as long as their ewes are bred to any kind of a ram, everything is done well, but this is a serious mistake on their part. Like begets like, and what kind of a lamb crop can be expected from ewes bred to a scrub ram, with a narrow body, a long, slim neck, a narrow chest, and long legs? Lambs from ewes bred by this kind of a sire cannot be fed as economically as those which come from the right kind of a sire, and consequently will not develop like the low, broad, blocky lamb which is so desirable on the market. There is a notable difference in the price paid on the market for these two kinds of lambs. No mistake can be made by the use of a good sire, and far more profit is insured than by the use of a scrub ram. Select a ram with a broad head, showing masculinity; a thick, short neck without any depression between shoulder and neck, and a broad, deep

chest. He should be broad and smooth on top of the shoulders and have a well-developed forearm. His legs should be short and set well apart. He should be broad, deep and full in the heart girth, which indicates a strong constitution. It is essential that the ram have a broad, straight back with well sprung ribs and wide and thick loins. A long and wide rump with a full deep twist is very desirable. He should be well filled in the flank with a straight underline. His fleece should be dense.

*A Good Ram

It should be remembered that fifty to fifty-five ewes should be the limit for any ram to breed in one season. On the ranges thirty-five to forty ewes are enough for one ram. A ram lamb should not be used for heavy service at any rate.

As to the time when to breed the ewes, this lies entirely with the flockmaster, as he must know what he intends to do with his lambs,

whether he wants to turn them off on an early summer market or whether he intends to keep them over and fatten them the following winter. If it is his idea to strike the early market, he should turn the ram with the flock between September 15th and October 1st. If he intends to follow the other method of fattening his lambs in the fall and winter time, he does not need to breed his ewes until about November 1st to 15th, or somewhere about that time.

*A Poor Ram

Culling the Ewe Flock

In the fall of the year the ewe flock should be looked over and those ewes which have not proved to be good producers, should be culled out, fattened and sold. Also ewes with broken mouths should be drafted

*NOTE—The two rams shown above are of the same breed.

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out, fattened as much as possible, and sold to the butcher. In place of these, the best ewe lambs from the previous lamb crop should be added to the flock.

The Breeding Flock in Winter

Sheep will thrive and do well on the grains and roughage grown on the average farm. If the flock goes into winter quarters in good condition, not a great deal of grain feeding is necessary. Where good clover or alfalfa hay is fed with perhaps a small amount of good corn silage in addition, say about two pounds per day per ewe, no grain is necessary at all until about a month previous to lambing, when it becomes essential to feed some grain in order to stimulate a good milk flow. As sheep like change in feed, some good bright corn stover, and nice, fine, bright oat straw will be appreciated by them. By all means, fellow flockmasters, be sure and give your breeding ewes all possible exercise in the winter time, as this will add greatly to the health, vigor, and strength of the lambs when they are born. Outdoor exercise on all bright days is an essential factor which should always be borne in mind. On all cold, stormy days, keep them under cover, if you can. This, of course, does not include the sheep on the ranges which never go under shelter all winter long. Have your shed or barn well ventilated and bedded when the sheep are in it, and supply your sheep with plenty of fresh water at all times.

Gestation Period

It is perhaps well to mention here, for the benefit of those who have had no experience with sheep, something about the gestation period. At the Wisconsin College where careful records have been kept of the date of breeding and lambing of each ewe, it has been found that among the middle and long wool breeds of sheep the average gestation period was 147 days. The fine wool breeds range from 150 to 154 days.

Lambing Time

There is perhaps no other time in the year when the flockmaster should be so closely connected with his flock and give them such careful attention as at lambing time. A great deal of his success in the percentage of lambs raised depends in a large measure upon the care he gives his lambing ewes

and new born lambs. At this time some of the ewes need assistance in lambing, and like the ewes, some of the lambs also need the shepherd's help in getting a start. The flockowner who is in earnest, will devote much of his time during the day as well as during the night with his flock, for he knows that he can save old sheep as well as lambs by giving the proper attention to them, and this all means money and a larger profit for him.

It is not a wise plan to leave the ewes which have lambed with the rest of the flock. It is far better if newly lambed ewes with their lamb or lambs are taken away from the main flock and put in separate enclosures, which will prevent a great deal of the so common trouble of ewes disowning their lambs. If ewes lamb early before going out on grass, they may be fed more grain and corn silage than before lambing, so as to furnish plenty of milk to nurse the youngsters well. In cases of twins and triplets it is advisable to put them together later, and also put those together with single lambs, as it is evident that the ewe which nurses two or three lambs needs more feed than the ewe with only one lamb.

Castrating and Docking Lambs

Many flockowners in this country have not yet realized the importance of castrating and docking their lambs. When flockmasters who have neglected these operations in the past once become fully acquainted with the advantages and profits derived from having their lambs properly castrated and docked, they will soon get busy and perform this work.

Any buck lamb which is not a pure-bred, should be castrated. A grade ram should in no event be used for breeding, as this method does not uplift breeding to a higher standard, but on the contrary, lowers it. It would be a wise plan to castrate many of the inferior pure-bred lambs, as this also would be a great benefit to the sheep industry in America. When the flockowner intends to raise lambs which will bring him the largest returns from the capital invested in the business, he can, under no circumstances, afford to let his lambs go whole. Buck lambs grow all right and put on flesh for the first few months after birth, until they have reached the age of three or four months, when they begin to get uneasy, as nature then stirs up their male functions. Now, at the very time when the lambs ought to get in the best condition,

in order to bring the highest price when put on the market, if not castrated, they will then begin to wear off flesh instead of putting it on, by fighting and riding each other. In spite of the fact that they may have good pasture and feed, they get thinner and come to market in a very poor condition, while the castrated lamb, on the other hand, under the same care and feed, at this time comes to market in a plump, fat condition. Now, how does the price paid for good, fleshy lambs compare with that paid for thin buck lambs? The former receive their full value and are in demand, while the latter are a drug on the market on account of their thin condition and the strong, undesirable taste of their flesh, due to the fact that they possess their testicles at this age. Buyers at our leading markets are fully aware of the disadvantages of such buck lambs, and hence the price paid for same is from \$1.25 to as much as \$2.00 or more less per hundred pounds than would have been paid for them had they been castrated. If the above quoted difference in the price paid for castrated and uncastrated lambs is not sufficient to induce flockowners who have not used the knife on their lambs in the past to do so in the future, then it is absolutely useless to try to help them increase their profits from their sheep. Perhaps many flockowners are afraid to tackle the task of castrating their lambs, but I will say to them that this is not a serious operation at all. Like in all other work, however, the necessary precautions must be taken.

Lambs should be castrated when they are young. The best time perhaps is when they are from a week to fifteen days old. The writer, in his experience, has always found that lambs that are castrated at this age mind the operation much less than when they have become older. A nice, bright day should be selected for this work, and not a cold, wet and damp day. The pen in which the flock is kept should be well bedded with clean, dry straw. The lambs that are to be castrated should be separated from their mothers and partitioned off in a narrow corner, to avoid chasing when being caught. The operator should have his hands and sharp jack knife thoroughly disinfected with a solution of carbolic acid, or any other suitable disinfectant, in warm water.

With the attendant holding the lamb firmly with its four legs against its body to avoid struggling, and also holding it firmly against his body above the knees, the operator cuts

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off one-third of the end of the bag, which leaves the end of the testicles exposed. They can then be drawn out, cord and all, with the fingers, or with a pair of pincers. The best and most practical way is for the operator to pull out the testicles with his teeth. This prevents the slipping of a testicle, which the lamb sometimes throws up into its body, causing soreness when it has to be worked down again by the operator's fingers. All fat and loose skin covering the testicles should be pushed back and left in the bag. After the removal of the testicles, a little of the warm disinfectant may be poured into the empty bag to avoid any infection, and the lamb should then be gently lifted over the partition to its mother. After the lambs are castrated, the flock should not be disturbed in the least that day, so that the mothers will not run over the lambs which are lying down and hurt them in any way.

Castrating

The next operation that should not be neglected is docking. Most of the flockowners of the large ranges, who have what they call a general "round-up", castrate and dock their lambs at one time. In such cases where the idea is to save time and labor, this may be permitted, but small flockowners should not, in any case, follow the example of the ranchman. Performing both of these operations at one time gives the lambs a great shock, and weak lambs often succumb. From close observation, through many years of experience, the writer is fully convinced that it pays the small flockowner well to perform two separate operations.

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The benefits derived from docking are so many and so important that it is almost a crime to neglect it. There should not be a single sheep in any flock with its tail left on. In the summer time the grass in the pasture is often very juicy, the sheep's bowels become a little soft, and a filthy mass of manure gathers on the tail, making not only a very undesirable appearance, but forming also an excellent lodging bed for maggots, worse so in females than in males. Docking prevents a great deal of maggot infection. Moreover, because their tails have not been removed, ewes often go barren, lessening also the vitality and vigor of the breeding ram. Sheep and lambs coming to market with their tails on bring from twenty-five cents to fifty cents less per hundred pounds, according to the amount of filth gathered on the tails.

The operation is best performed when the lambs are from seven to fifteen days old. In the case of buck lambs, a week's time should elapse between castrating and docking, in order that the lamb is nearly all healed before docking follows. Some shepherds use a chisel and mallet and chop off the tails on a block of wood. Others use a sharp knife. The newest, and in the writer's experience, the most satisfactory and safest method is the use of a pair of hot pincers. There is, then, no danger of an excessive loss of blood, which often causes the death of lambs docked with the knife. The hot pincers sear over both blood arteries, thus preventing bleeding. By the use of hot pincers, if the work is properly done, the lamb does not lose a drop of blood. If when the tail is cut off with the

Docking

knife, it is noticed that the fleshier lambs are losing too much blood, a piece of cord should be fastened as tightly as possible around the stub of the tail, close to the rump, and this will prevent further bleeding. The cord may be removed after from eight to ten hours.

These operations should be performed in the morning, so that the operator can watch the lambs. The writer knows of men who, having performed the operation by use of the knife in the evening, found some of their lambs dead the next morning, the cause being an excessive loss of blood. Had this operation been performed in the morning, the man in charge would have been able to watch the lambs during the day and so prevented the loss of blood. In using a pair of hot pincers nothing need be feared, even though the healing process of the tail is somewhat slower than when the knife is used. When the knife is used, the operator has blood spattered all over himself, over other sheep, over partitions and barn, and all blood lost in this way must be restored again by feed, since it requires just so much to maintain the lamb.

Rearing the Lamb for Early Market

If lambs are to be reared for an early market, the feeder should commence to feed the lambs well just as soon as they begin to eat, which is at the age of about two weeks. A lamb creep put up in one end of the barn where the little fellows can get some extra grain and a little nice, fine clover or alfalfa hay, adds greatly to their early development and fitness for market. This extra grain feeding, if kept up, that is, if the lamb creep is moved with the lambs out into the pasture, has its great advantages. Lambs so fed are in much better condition than others and grow heavier and fleshier at an early age, so that they may be sold in May, June, or July, when lambs are usually scarce on the market and sell for high prices. Here probably is where the flockmasters in the southern states have the advantage over northern sheepmen, because they have scarcely any winter and have green feed for their lambs most of the time during the winter season, and under these conditions they grow lambs heavy and fat enough to be put on the market in May and June, when they weigh about seventy-five pounds and bring big prices. There is no question that the largest profit comes from early lamb raising. Even if lambs are held over for fall or winter feeding, it

has been found by experiment that those lambs fed extra grain from an early age made more and cheaper gains when put in the feed lot in the fall than others of the same lot not receiving any grain. It was also learned that the small extra amount of grain fed more than doubly repaid its cost.

Another point in pushing the lambs along for an early market and highest profit is to sow a piece of rape just as soon as sowing can be done. It should be so arranged that this piece of rape, which will generally mature in from seven weeks' to two months' time, is near to the pasture where the sheep are kept. A little creep-hole can be put in the fence so that the youngsters can crawl through and get some, but not the old sheep; or it may be cut and fed to the lambs. With the mothers' milk, pasture, and this rape, and perhaps a little extra grain, the lambs will grow plump and fat and will command the highest price on the market. This rape, if time permits, can be sown in drills, making it possible to grow more of it on an acre than when sown broadcast. When sown in this way, lambs will not waste much by tramping it down, and it can be cultivated to keep the weeds out. I cannot speak highly enough of the value of the rape plant for lamb and sheep feeding.

If lambs are intended for fall or early winter market, another piece of rape may be sown not later than July 1st, which should be ready to turn them on when they are weaned. In an experiment conducted at the Wisconsin College, rape pasture took the place of a pound of grain for each lamb daily, in comparison with another lot on grass pasture with one pound

of grain daily and no rape. In other words, one pound of grain was saved by each lamb daily, and the lambs on rape made just as much gain as the other lambs that received one pound of grain.

It was further learned, when finishing both lots off in early winter, that the lambs that had received rape before winter feeding, did considerably better than the other lot not receiving rape before being put into the feed lot. Flockmasters who are acquainted with the value of rape, sow it with small grain or corn to pasture it off after the grain is harvested. From experiments and personal observation I know that the rape plant is a very cheap feed, is easily grown, and is a great promoter of growth and mutton production.

Fattening Sheep or Lambs for Early Fall or Winter Market

It is generally admitted among feeders that lambs bring more profit when put in the feed lot than older sheep, for the simple reason that it requires less pounds of feed to produce a pound of gain in lambs than in yearlings or still older sheep. The lamb in the feed lot is not only putting on flesh, but is at the same time growing in size, while the older sheep though spreading and developing more in width of body and also putting on flesh, is actually not growing in size any more after it reaches the age of two years. Wherever practicable, it will pay the feeder to secure lambs for feeding, unless, of course, he can get yearlings or two-year-olds at a very low cost which will enable him to realize a good profit from his investment. Fat lambs are in greater demand on the market than older sheep, and are therefore generally considerably higher in price.

In selecting feeders one ought to be very careful to get sound, healthy sheep, and not buy a lot that is probably infested with internal parasites, as stomach or tape worms, or with scab or foot rot. If the feeder is not watchful he will cut his profit down right at the beginning by losing some of the sheep which were unsound when bought.

To feed in the most economical way, the feeder should consider which varieties of grain are cheapest to use, as variations in prices of grain in many cases either increase the profit or lessen it. As an illustration the writer will refer to an experiment conducted several years ago at the Wisconsin College. In this instance, two lots of lambs were fed, one receiv-

ing shelled corn, and other dried beet pulp. The price of corn at that time was \$20 per ton, and the price of beet pulp \$16 per ton. When the experiment was completed, it was found that the lambs fed on beet pulp made about as much gain as those fed on the corn. With a large number of lambs or sheep fed on these two different rations, a saving of \$4 per ton would make quite an extra profit. It has been proved that the feeding of good, sweet, corn silage to sheep or lambs for fattening them, in connection with hay and some grain, is of great profit, because it is a good feed and at the same time very cheap.

A Good Feeder

A Poor Feeder

The Principles of Feeding

Not every man makes a good, profitable, and economical sheep feeder. Good results in feeding depend largely on the judgment, management, and ability of the feeder himself. It is not the careless, shiftless fellow who does not take pride in his work, and does the feeding only in order to earn his day's or month's wages, who is successful; nor is it the fellow who does not possess common judgment and wastes feed; nor is it the one who feeds the sheep in his care good and full at one meal and not enough at the next, which results in what is termed getting them "off feed", and often causes scouring, when sheep will lose in two or three days as much in live weight as they will put on again in the next two weeks.

A feeder of sheep must have learned to practice cleanliness, as sheep, perhaps, are a little more particular with regard to cleanliness in their feed than some other classes of live stock. He must keep the feed troughs clean and sweet and see to it that the hay and other roughage is clean and bright, and that the grain has not been scratched over and soiled by chickens, or in any other way.

Above all other things, to feed profitably, the feeder must be a person who practices gentleness when going to the sheep fold. Sheep like kind treatment, and repay it in a high degree.

Punctuality is another factor which leads to highest profit. Hours of feeding must be strictly observed. It should not be done early one morning and late the next.

A good feeder watches every animal in the flock closely, studies their appetites, and when an increase in feed is made, he will make it very gradually, so that the sheep do not even know when the increase takes place. While this is mostly meant for sheep and lambs fed for market, where heavy grain feeding is done, it must be remembered that in warm weather the feeder must use great care not to feed them as heavily on grain as he would in cool or cold weather. Sheep do not want as much grain in warm as in cold weather, and if the same amount is fed, it upsets the whole work and results in loss of profit. Sheep naturally make their best gains in cold weather.

A careful feeder will always see that his flock is kept free from ticks or lice. When these are found on sheep, the sheep should be dipped as they can make no gains when they are annoyed day and night by these pests.

Shelter also adds greatly to the welfare of sheep in severe weather.

The watchful eye of the master in all these matters is what brings good results.

A WORD ABOUT
SCOTCH SHEEP
FEEDING

BY JOHN CLAY

A Typical Border Shepherd

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FROM my earliest youth I have been a sheep feeder. As a boy the shepherds took me under their charge,—many a happy hour have I spent with them on lowland farm or moorland side. In Scotland the sheep are not housed or even yarded. They spend their all too short lives under the canopy of heaven. In spring and summer the green sod is beneath them; in fall and winter on a lowland holding they are put on turnip fields and folded on them, a small portion given them every few days, divided off by string nets that are ingeniously hung on stakes driven by a wooden mell (big hammer) into the ground. In winter days the turnip is the axle around which the sheep feeder's life revolves. It is the foundation of his work, in fact, you can go further and say it is the foundation of Border Agriculture, in which my early training took place.

The Vale of the Tweed is a wondrous land of romance. From its old reivers and warriors its folks have inherited many strong characteristics,—not the least among them an instinctive love of sheep. Much of the song and story of the neighborhood is twined round the gentle shepherd and his flock, the maiden stepping from her natal shieling over the purple heather or jumping deftly over a mountain burn. In glowing pictures both the poet and artist have told the story of simple lives spent in humble homes amid fields fenced by "the hawthorn hoar" or amid quiet glens where babbling brooks make the silence musical. One generation succeeds another. They are not serfs but they stick to the country, and back for years, far as legend carries us, there have been families of Andersons, Turnbells, Littles, Douglasses, Whitlaws, Stobies, Scotts, Elliots, and men of that ilk, working out their destiny with Border flocks.

In my early life we did not turn off many lambs. The fashion ran on big joints and we catered to it. The Scotch and North of England folks are called conservative, and in many ways they are, but in farming matters they promptly meet conditions.

Tweedside is an ideal place for the sheep industry. Down in the valleys of the main stream and its tributaries are rich lands with splendid natural drainage, the basis of a successful sheep industry. Gradually you leave these low lands and rise up, bench by bench, to the Cheviot and Lammermoor hills, to grey bent and purple heather. Near the vicinity of the streams you see the Border Leicester sheep or high grades prevailing; on higher grounds, but mostly on arable land, the Leicester-Cheviot, known as the half-bred, finds a congenial home. Higher up, still on green hillsides, the graceful Cheviot makes its living, and last and most picturesque of all is the shy Blackface. As I write here at St. Joseph, Missouri, I see the panorama,—the deep, silent river,—the whistling plowman,—the sheep grazing quietly,—and then further afield, up where the grass breaks into oceans of bracken, up still to the purple hillside, and there with springy step you see the hill shepherd with a couple of collies at his heels sweeping the landscape with an eagle eye not missing a point. Hail him and you will find a gentle, shy sort of man, diffident and slow of speech, reticent,—but pierce the inner crust and you find a heart of gold. Come once again those glorious days when on Yeavinger Bell or by Cheviot fell the whirring grouse and startled sheep get out of sight of the intruder and leave you alone amid the swelling hillsides and the deep gloomy valleys!

Over sixty years ago my father took his first hill farm. He had a cosy place in the Merse of Berwickshire and, like his father before him, he added a hill place to his holdings. It was a lucky find, for it led on, with other additions, to happiness and affluence. The lowland farm was composed of heavy clay, difficult to work, "a kittle place" as they say in Scotland, but a great producer in favorable seasons. The hill farm produced two classes of sheep. On its arable lands were Leicester-Cheviots whose nose had always to be close to the plow and often the cake trough. Blackfaces were on the upland hirsels and their produce went straight to market, either as fat lambs or as feeders to be wintered in other parts of the country. The half-bred wether lambs were transferred dur-

ing August to the low country farm. There they were put on foggage, red clover, alsike and timothy, being the mixture of grasses, but the former prevailing. The method after they were fairly weaned was to winter them as cheaply as possible and still keep them thrifty as the class of wool they produced was very valuable in those days.

They ran on the old grass fields and had an allowance of turnips and bran or a bite of linseed cake. The last two months of the winter, when they had lost their front teeth, they were fed cut turnips. The end of April they got on to the grass fields and were shorn in May. During the height of the grass they got no extra feed but whenever the grass showed signs of failing the little troughs appeared and they kept improving right along on a feed of cake or grain. Late in the fall or early spring, ten or fifteen acres of land generally contiguous to a favorite old grass field was sown in tares (vetches). About the tenth of August these were ready to cut. Never will I forget Archie Anderson, our shepherd, dead these many years, cutting the tangled tares with an old-fashioned scythe. Then they were loaded into a long cart, driven to the grass field and tossed out to the flock. They followed the wagon like cattle after a hay rack on the prairie. We generally had about three hundred to three hundred fifty of those wethers, big, bony fellows with ears well set over their intelligent, liquid eyes. They were brought from the fields they had been grazing and were concentrated in the

above, a pasture of about fifteen acres. What joy it was to drive the old horse and cart as Archie tossed the feed right and left, his dog lying at the gate ever ready to answer whistle or sign from his master.

Dreamy days were those, leaving behind them mellow memories,—the gentle shepherd, the flock dumb but radiant with instinct,—the wise dog, the tall hedge on the west side of the field, a boundary and a shelter in one, red with haws, winter fruit for thousands of wild birds,—away in the distance the old square farm house redolent of our ancestors who for generations had tilled many acres of the surrounding country.

After the flock had gotten its share of the tares the cake barrel was tapped and about half to three-quarters of a pound of concentrated food was put in the small trough for each animal. At this piece of work the dog was in evidence. As the shepherd poured the cake and corn from a sack into the above the sheep were kept back by the Collie. If one of the expectant flock had the temerity to try to break away and reach the dainty food, the dog shot out like an arrow and turned him back to the bunch. Not a word from the shepherd,—he knew his duty without being told.

After eating, the flock rested, scattered over the green field, making a scene of peace and plenty. As the season went on and the grass in the field was nibbled close more tares and more artificial food was doled out. About the tenth of October a few turnips, roots and tops, were added. Then the day came when they were folded on the root field. The troughs went with them and for six weeks or two months they got practically as much artificial food as they could eat. It was a stuffing process.

When they reached eighty or eighty-two pounds dressed my father sent for Joe Ruddick, the great Border dealer of those days, and they bargained for the stock. Ruddick came about two o'clock in the afternoon. They looked over the sheep for sale, probably took a glance at the cattle that had just been placed in sheds for the winter feeding, and then they went to the house for dinner at three o'clock. The bargaining began after dinner, at which several of the neighbors were present. After my mother left the table the port bottle went freely around and a good deal of gossip was retailed. Later on the hot water jug came into action and hot toddy in big tumblers was freely drunk. All the time the trading

went on. As a rule Ruddick had looked at some of the neighbors' stock, so he had to hold his own against three or four parties. As I recollect it always ended in a deal. Tea was served in the drawing room about six o'clock. Ruddick left shortly afterwards while the neighbors sat down at the whist table, played probably for a couple of hours, drank more toddy and left about ten o'clock.

Halcyon days were these for the Scottish farmer,—the American Civil War had forced up prices,—the misfortunes of others, the horror of bloody battle fields, was enriching landlord and tenant in the British Isles. I think it was in 1864 that the wool from the above sheep sold at sixty cents per pound. They probably produced from seven to eight pounds per head but at the former weight it meant \$4.20 per sheep and as they went to the dealer at about \$15 per head for mutton it meant an enormous return to the producer and feeder, and my father, wise in his generation, always tried to follow up his wether sheep from the cradle to the grave. Our yearly draft of ewes went to England to produce another lamb crop.

Nowadays it is all changed. Sir Walter Scott in telling the story of the last of the Scottish minstrels, said: "The bigots of the iron time had call'd his harmless art a crime." It is change everywhere. The farmer of fifty years ago in Southern Scotland would be a freak in these days of modern methods. Like the minstrel, he has disappeared. The sickle and the scythe are gone; the mower and self-binder take their place, and so the old-fashioned wether of stately proportions is a *rara avis*. Ask a butcher for a leg of an auld sheep, as they still term it, and you get a sigh from him, and then he answers, "Nay, nay, we never see them any more."

The lamb that is born in March is taught to eat cake at his mother's side and when he is weaned he is carried forward towards maturity at lightning speed. By early December the tops of the flock will dress sixty pounds and that is the weight popular in these days. More than once I have stated that the husbandry of the Borderland, so far as the working of the soil is concerned, has deteriorated sadly, not because the farmers are less skillful, but labor becomes scarcer each year. The advance in machinery has helped a lot but it cannot overcome the want of hand labor necessary for root culture. But when you come to the live stock business, and more especially the handling of sheep, a tremendous advance

has been made. They turn their sheep product of the farm at half the age and at seventy-five per cent of the weight. The same story is told in our stock yards in regard to yearling cattle. It is the small tidy cut that is popular and the butcher of Britain, as well as in the United States, must cater to his customers.

After weaning, the farmer, aided by his shepherd (and the latter is generally the big asset in the management of the flock), must provide good aftermath to start the lambs on their way to market. Some seasons are more favorable than others, but in a country where the rainfall is well divided the stockman has not much trouble in this way. Artificial food is freely given and whenever the roots are ready for consumption they are turned on them. The lamb teeth can slice the white or yellow roots, but when they come to the swedes these have to be topped and tailed, put in to heaps and the turnip cutter is in evidence. The sheep is an early riser and you must be ready at dawn to fill his boxes with sliced roots. Then at a certain hour, to the minute if possible, feed them their extra ration of cake or corn. The sheep is a grand time-keeper. Away amid the silent hills and valleys where the wild foxes wander and the curlew screams, the Cheviots or Blackfaces spend their nights on the hill tops. At daylight they commence feeding slowly downwards. At noon they rest a little in the valley, generally by the banks of some stream, then as the sun crosses the yard arm they point their eyes once more upward. Nothing but a brewing storm will keep them from their onward march to the bare hill top. There is method in their life and they love punctuality, and whether it be on Scottish farm or Colorado ranch you must feed your sheep to the minute to make a success of your business. Further still you must handle your young stock gently, with tact and love. As civility is the cheapest thing in daily life nothing counts so much in ovine existence as gentle care mixed with observation. Watch their habits and cater to their wants.

Another change has come. I know not whether for the better or worse. The fair ground where we used to meet and haggled over prices has disappeared. The shepherds would reach such places as St. Boswells Green or Melrose Moor the night previous to the fair day. Then at daylight the owner would appear and as those Fairs were held in July and August he probably spent most of the night reaching his stand, for that was

SCOTCH SHEEP FEEDING

before the days of distance-killing motors, so as to reach his flock by four A. M. If it was a brisk trade he sold out early but many a day the owners stood till three P. M. under a hot sun, or again in a pouring rain. Today it is the auction mart. It opens about ten A. M., the farmer gets leisurely to the place of business, the auctioneer does the work and the owner has nothing to say but look wise and take his medicine. It is easier, possibly it is better, but the young farmer growing up under such conditions knows little of the value of his stock. He cannot cultivate self-reliance in pricing his product. In other words, his individuality is seriously impaired.

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