

T H E S I S

T H E C H R I S T M A S L A M B

O . J . O L S E N

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KANSAS STATE AGRICULTURAL COLLEGE

THE CHRISTMAS LAMB.

The sheep industry in Kansas is the least advanced of any of the common branches of animal husbandry. Why this should be so hardly explains itself, except that the country is comparatively new and we have not yet reached the stage of intense farming. Sheep are about the most profitable of all domestic animals if handled right. They have always found a ready market and prices have been very good in recent years. They are a very economical animal, making good use of their food, are easy to keep and will live on a large variety of feeds and even on plants which no other animal will touch. The Iowa Station has found that out of the five hundred nineteen weeds and grasses in the Mississippi valley, sheep will eat four hundred eighty or nearly four times as many as any other domestic animal will eat. But this is not all; they are great helpers in building up the soil, their manure being very rich and valuable.

We see that general sheep farming is uncommon in this state, but there is a phase of it which is still more uncommon; in fact it is almost rare; this is the raising of the "Christmas Lamb". This branch of sheep farming is comparatively new to us and it is only successful near large centers of wealth where we find people who care more for satisfying their appetites than they do for money.

Up till recently the center of wealth has been on the eastern coast, but now it is steadily moving westward and with it the raising of the Christmas Lamb will also move. In the large eastern cities the demand for this class of lambs is almost unlimited, and more, their popularity is steadily increasing. People consume more sheep now than ever before. New York City is a good example, seventy thousand being consumed there weekly. Up till recently New York was the only market for this class of lambs, but now we find a demand for them in all of our western cities, which, although limited, is steadily growing.

Many may ask the question: "What is the Christmas Lamb"? This is the lamb which is born in the fall or winter, commonly known as the hot-house, early winter or fall lamb.

Kansas climatic conditions are excellent for these lambs. Stored feed is plentiful, the weather is cool and parasites are entirely avoided. These lambs grow and fatten much better than the common spring lamb, so this is taken advantage of and they are forced to an extreme quality and put on the market at ages varying from six to twelve weeks.

As we have mentioned before, these round, sweet, juicy, tender morsels of baby mutton find a strong demand among the wealthy in the large cities who look for quality

instead of quantity. Fabulous prices are paid for these, even as much as twenty-five dollars for a dressed lamb of extra quality. The prices vary much, depending on the quality of the mutton and the neatness of the carcass. J. S. Woodward of New York State says he sells many at \$18 per head, while his average for one year during which he sold over eight hundred head, was \$7.46 per head. One can easily see the profit in getting such prices, as the lambs can be raised at a profit for \$5 per head. The cost of the feed is low, the milk from the dam forming the principal part of the ration.

In raising the early lamb the first problem confronting us is getting the ewe to breed during the summer time. It is not natural for her to breed at any time of the year, because while in the wild state, if a lamb was dropped in winter it was sure to die, and food also being scarce, it became a natural instinct for her to breed only in cold weather so as to drop her lamb in warm weather.

Sheep have been under the care of man so long that they now depend on him for subsistence and will allow themselves to deviate somewhat from their natural instinct. This is shown by the ewes of certain breeds that bring forth lambs in the winter time, depending on the shepherd for their welfare.

Although these ewes will breed in the summer time, it is necessary that conditions be as near those of the

fall as possible when they are mated. If proper precautions are taken in this respect one can secure more uniformity in the lambs by their dropping at about the same period. To secure best results in summer breeding the following rules are laid down by Wing, a large early-lamb raiser.

1st. Have the ram with the ewes not earlier than middle of March nor later than the first week in June.

2nd. Put ram with ewes nights and days.

3rd. Use young ram and feed him well while in service.

4th. Use two or more rams to incite them to better work.

5th. Do not have the rams too fat.

6th. If ewes were not shorn in the fall, shear as early as weather will permit.

7th. Feed ewes green food, such as ensilage, turnips, carrots, mangels, with some corn.

The period of gestation in sheep is about five months. The lambs ought to be dropped the first days of November so they can be marketed about Christmas time. The lambs will drop somewhat irregularly, but this does not matter since all can not be put on the market at the same time any way. They should be divided up into uniform lots and each lot fed separately. Uniformity is pleasing to the eye, adds to the price and decreases the work.

Another problem confronting the Christmas Lamb breeder is deciding which breed is the best for the

purpose. Each breed has its place; what we want for this purpose is a ewe that will bring forth a lamb which will be ready for the market before February. Such a lamb will sell for twice the money that a later lamb will. Nearly all who have experimented on the breeds agree in favoring the Dorset Horned sheep. They are not handsome and could hardly be recommended for general purposes, but for early lamb raising no breed is better. They will breed any time, are exceedingly good milkers and great eaters. The only drawback in using pure-bred Dorsets is the high cost of the ewes. The following table shows a breed test made at Cornell Experiment Station with pure-bred Dorsets and Shropshires and also grades of each.

	Average wt. at birth	Average wt. at end of 9th week	Average gain per week
Pure-bred Shropshires	9 lbs. 11 oz.	42.75 lbs.	3.91 lbs.
" Dorsets	10 " 9 "	53.5 "	5.36 "
Grade Shropshires	8.75 lbs.	33.94 "	2.66 "
" Dorsets	10.39 "	40.51 "	3.64 "

From the above table we see that the lambs of Dorset blood were larger at birth and made better gains than the Shropshires. In the above test both lambs and ewes were given all the food they could consume. It was of the same quality, but differed in quantity, the Dorset ewes eating the most. If one can not afford to keep pure-bred Dorsets, grade sheep answers the purpose very well; in fact, grade sheep are almost universally

used for this purpose. W. S. Woodward of New York State uses a grade known as the Michigan Merino. He claims them to be very good mothers. H. P. Miller of Ohio stands up for a half blooded ewe, namely a Merino-Dorset. In each case the Dorset ram is used.

With reference to other breeds we can mention the Rambouillet, Tunis and Somerset as being good. The Somersets are said to equal the Dorsets, but they have not as yet gained a foothold in this country. The Down breeds, with the exception of the Hampshires, are not reliable as early lamb raisers.

What we want in a ewe is an unusual share of maternal instinct, milking qualities, precocity, profligacy and fecundity.

The ewe should not be less than two years old when bred for an early lamb. No special food preparation is necessary for making her take the ram. But it is a good plan to shut her up away from food for a couple of days, then turn her onto good food and give with it a little extra; she will then be more likely to get in lamb. The summer care of the pregnant ewe is simple. All that is required is grass, water and shade. Bluegrass is the best, the only disadvantage it has being its harboring of parasites. Water should be fresh and clean, also raised from the ground so that excrement will not enter it. Stagnant pools and marshy seeps should be out of reach of the sheep. Shade is very necessary and the best method is to have the sheep come to the barn for it where the

best of care can be given and all the droppings can be left under cover. If allowed to lie in the shade of fences, bushes, etc., in pastures, such places will become infected with parasites.

When the grass becomes short or entirely gone, it becomes necessary to feed grain. Much of it should not be fed because it may cause a weak lamb. But if the right kind of feed is used, enough should be given her so as to lay on fat, for this fat will help much to keep up her condition after she has given birth to the lamb. Such feeds as linseed-meal, bran and a little corn-meal make good concentrates, while alfalfa, red clover, corn cilage, pumpkins and roots make good roughage. If quarters are warm there is no danger whatever from feeding succulent feeds. For fall pasture a mixture of rye and oats furnishes an excellent pasture. Rye will grow on poor ground and oats will grow anywhere. This mixture can be sown after the corn is cut, not less than three bushels to the acre. There is not the least danger in turning the sheep on this.

Pumpkins make another excellent fall feed. They should be fed with the seeds included. The seeds, besides being very rich, are good vermifuges. Pumpkins are especially good for the milking ewe, but the amount fed to the pregnant ewe should be limited.

Rape is a good feed and is generally safe although it will bloat the ewes at times.

The value of ensilage as a sheep feed is much disputed.

Many consider it dangerous and some experiment stations have even pronounced it so. But some of the best early lamb raisers use it with good results.

Roots are very essential as a feed for sheep, carrots being the best and most highly relished. Turnips are easily grown and much fed. Mangels are also good, but care must be taken in feeding them to rams because they affect the bladder.

Alfalfa is the richest and most easily grown hay there is and it is much relished by sheep. It is the best maintenance ration for ewes before lambing and is very good for combining with other feeds after lambing. There is not the slightest danger in feeding alfalfa hay, but one has to be careful in pasturing it on account of the bloating. Frozen alfalfa should not be fed, as it causes indigestion.

Clover is another excellent and nutritious feed for sheep. Soy-beans and cow-peas are very rich in protein and make good feeds for balancing the rations.

It is not well to keep the ewe too well housed; she should at least have some outdoor exercise. The exercise question is much disputed, but it has been found that very little exercise is necessary for the ewe and that she can be kept in the fold all winter without any bad results. All exercise taken above the want of nature is at the expense of food so it pays to watch this matter closely. The ewe should preferably be shorn in the fall,

but if well-housed may be shorn during the winter. She will then take less room, give more milk, the quarters can be kept warmer and no wool will be damaged by the lambs.

To dry ewe simply reduce her feed somewhat, taking away all succulent food and if necessary milk her out once or twice.

Fall lambs are strong at birth so there is but little trouble in looking after them. All that is necessary at first is to keep them well housed. Never let them feel the effects of a fall storm for such storms are very severe on the lambs.

Milk is the great factor in developing them. See that plenty of it is furnished. If any of the lambs are weak they may be fed new cows milk which will generally cause them to pick up again. At the age of two weeks the lambs will begin to eat additional food. This should be given them in a side pen furnished with creeps to the ewe pen. At first new-process linseed meal is good, giving them all they will eat. Later cracked corn may be added and still later barley and a few oats. Some clover hay cut when in full bloom serves for roughage. Every effort must be made to induce the young things to eat a large quantity. This may be encouraged by giving them a variety of feeds. To the above mentioned feeds may be added gluten-meal, wheat-bran, soy-beans and cow-peas. In order to produce as large proportion of lean

meat as possible, the food must be nitrogenous. Through this system of forcing, the best lambs weigh from forty to forty-seven pounds at the age of six weeks and as much as thirty-four pounds dressed.

Ewes bereft of their lambs through sale may be given a lamb from twins to raise. To force a ewe to own a lamb a movable partition is used to separate her and the lamb from the flock and the lamb is helped to suck many times a day until owned by its foster mother. Water weakly tinctured with essence of peppermint sprinkled over the nose of the ewe and over the lamb frequently helps to effect an adoption.

It is not necessary to dock the lambs, but it is a good plan to castrate the male lambs at from two to three days old. The wether lambs make better gains and kill better.

To castrate, cut off the end of the scrotum and pull the testicles out with a pair of pinchers or with your thumb and fore-finger. If the lamb is not more than two days old some people think it a very good method to cut the whole scrotum off with a pair of shears.

The ram one might say is half the flock. He should be vigorous and of the best early maturing mutton type obtainable. One should not lay too much stress on large size. He should be big through the heart, straight-backed, should have well sprung ribs and good short legs. A grade ram should never be used. The use of grade rams for one year may spoil the flock for ten years. Turn the rams

with ewes any time between the latter part of May and first part of June. Fifty ewes to one ram is enough.

Barns may be made of any shape or size desired, only each pen for twenty ewes must contain at least three hundred twenty square feet of floor space in addition to a small pen six by twenty feet to be used for the lambs. It is a good plan to have the feeding racks as partitions between pens. The lamb annex can be placed back of the pen and the water trough between the annex and the pen. Have large window opposite each pen. The barn must fulfill the following requirements:

1st. It must be warm.

2nd. It must be dry, no animal being more afraid of water than sheep.

3rd. It must be airy.

The sheep's lungs are very sensitive and more influenced by poisonous gases than those of man. A good ventilation system must be fixed in the barn, one that will take out all impure air without causing any noticeable drafts.

4th. Must be pure.

To prevent the escape of ammonia from the accumulated manure, acidulated phosphate rock such as is used for fertilizer is the best. The sulphuric acid combines with the ammonia, forming a stable compound which is available as plant food. Bedding should be used only in such quantity as to keep the barn clean. Artificially heated

barns are not necessary.

The following directions for dressing the lambs are given by the New York Experiment Station.

It is necessary that the lamb should bleed well and that the wool about the neck should not be soiled. Therefore suspend the lamb by the hind feet. Cut the large artery on the left side of the neck immediately back of the head and in front of the cervical vertebra. The stomach and intestines should be removed without disturbing the heart, lungs or liver. As soon as the intestines are removed spreaders should be inserted to give the lamb the best appearance when offered for sale. For lambs weighing thirty to forty pounds dress weight, spreaders about fourteen inches long will be about the right length. If too long spreaders are used there is danger of breaking the ribs and thereby injuring the appearance. At each end of the spreader should be made a shoulder and a projecting point. One of these points should be inserted from the outside at the flank near the opening made for the removal of the intestines, the spreader crossing the back diagonally and the point at the other end inserted in a similar manner in the opposite side of the lamb near the chest. In like manner a second spreader is inserted so that the two cross each other, forming an X at the back of the lamb. The caul fat should then be fastened by means of two skewers at the thighs and the joints of the spreaders in such a manner that the whole of the meat not covered with the skin is covered with the caul fat and in this condition the lamb should be allowed to cool. All animal heat must be out

before wrapping or the meat will spoil. Before shipment each lamb should be wrapped with two separate wrappings, the inner being muslin, being drawn tightly over the front of the lamb to prevent breaking and soiling by handling. The outer covering should be burlap.

Nothing has yet been said of the shepherd. Upon him the success of the flock depends. He should be prompt, ready to act, always full of resources to meet any emergency, should be good natured, patient, and should have a heart full of love and kindness.

With proper management the raising of this class of live stock should be very profitable in Kansas. We have ideal climatic conditions, all necessary feeding stuffs, our markets command a strong demand and are very near at hand. The population is fast increasing, as is also the demand for mutton. Ranges are fast being taken up and land is increasing much in price. It is becoming necessary that we practice more intensive farming and as an aid in this nothing will equal the Christmas Lamb.