

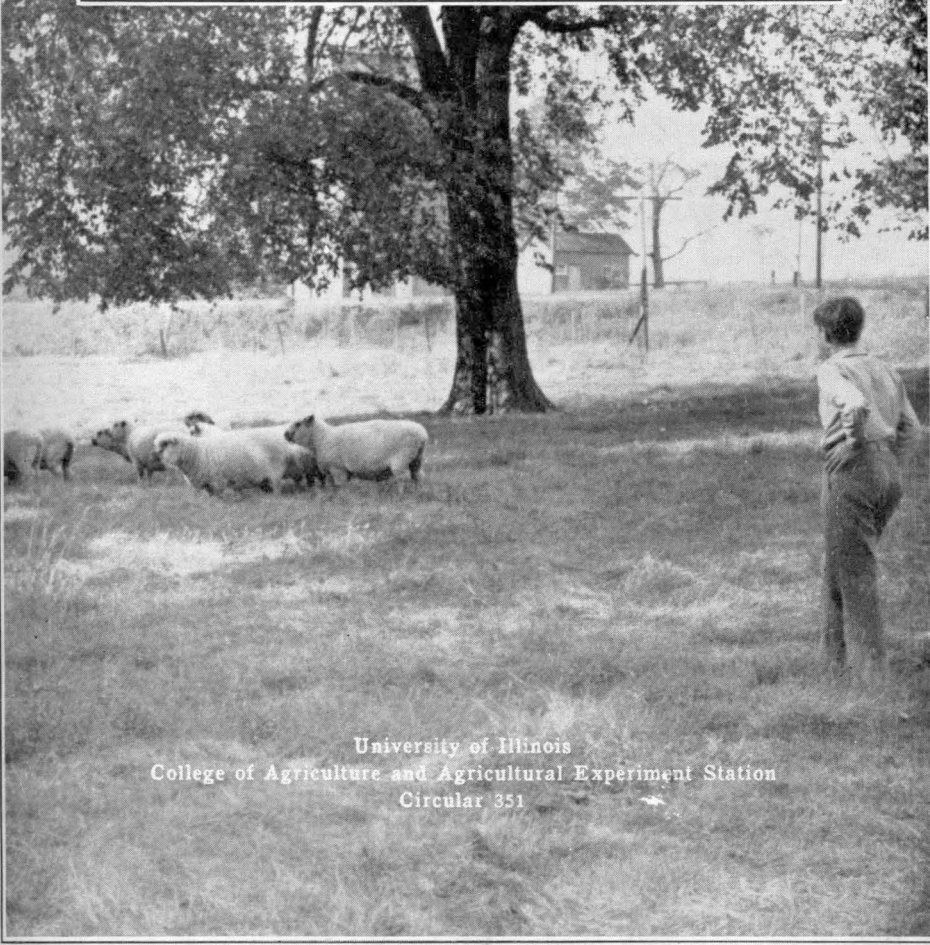
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A Manual for
**SHEEP CLUB
MEMBERS**

By W. G. KAMMLADE AND
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FOREWORD

THE PURPOSE of this Sheep Club manual is to give to the Sheep Club member certain fundamental information that will help him in developing a high-class farm flock. There has been no attempt to make the manual a complete reference on sheep husbandry. The books and pamphlets listed on page 47 will supply further reading for the interested and ambitious junior sheepman. Success in this project calls for the exercise of much personal initiative and judgment. The club member who has these qualities and uses them will derive both pleasure and profit from his experiences.

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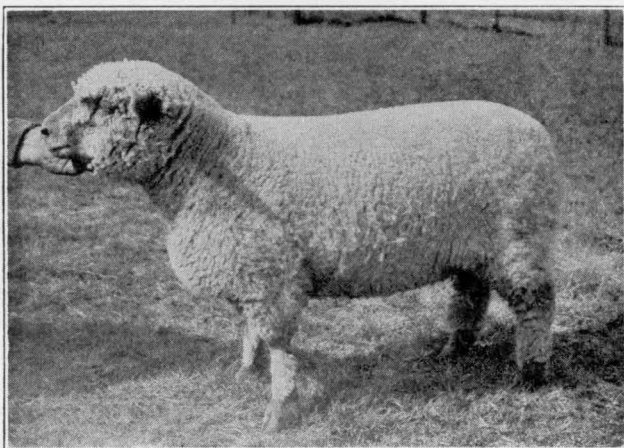


Fig. 1.—A good type of wether lamb. This wether with his depth, width, general smoothness and compactness, and easy fattening qualities, represents the type which develops into desirable market lambs.



Fig. 2.—A poor type of wether lamb. This lamb is deficient in good mutton qualities. It lacks the smoothness, straightness, fulness, and low-set body shown by the lamb in Fig. 1.

shorter period. Lambs selected for this project should, if possible, be of the type that will fatten easily. (See Figs. 1 and 2).

This means:

1. Strictly mutton type.
2. Blocky, deep, smoothly turned body.
3. Straight, strong back and straight underline.
4. Short neck and legs, the latter placed well apart.

Coarse lambs and lambs uneven in their lines should be avoided. Lambs that carry a moderate amount of fat at the time feeding is begun are most likely to do well.

ESTABLISHING THE FLOCK

While, as just stated, the fat wether lamb project, for some boys, provides the best start in SHEEP CLUB work, the bred ewe project is more desirable for most club members. It affords a better opportunity to learn about the care of sheep and is more profitable financially. It is also the logical point at which to start in the sheep business.

Careful Selection of Ewes Is Good Start

In the bred ewe project either purebreds or grades may be used. While grades are suitable for beginners, the older club members will find greater satisfaction if they use purebreds of their favorite breed. Whichever kind is used, whether grade or purebred, the individuals should be chosen carefully. They should also be given proper attention at all times, for no matter how good the individuals are that are selected, they cannot produce to their full capacity unless the keeper is ever watchful for their welfare.

Ewes with the following characteristics are recommended for purchase.

1. From one to four years old.
2. Sound, especially in udder and teats.
3. Well-grown, healthy, and vigorous.
4. Evenly covered with a dense fleece of good quality.
5. Straight in body lines and showing capacity for feed.
6. Uniform in size and breeding.
7. Showing good breed type if purebred.

of the dark-faced breeds; and by bright eyes, with plenty of red blood showing in the veins of the inside of the eyelids. The grade ewe in Fig. 5 shows good general health.

Pronounced emaciation, hard coughing, pale skin, dry, harsh wool, and chronic scouring are indications of poor health. Ewes may be thin because they have been suckling lambs and have not had enough feed. Such ewes may be bought if they are otherwise



Fig. 5.—A good type of grade ewe. While not having all the desirable qualities of a purebred, ewes of this type will do very well for the beginner in SHEEP CLUB work.

desirable, but unthrifty ewes, such as shown in Fig. 6, should not be purchased, for they may be infested with internal parasites.

Fleece. The fleece is a very important factor which too often is partly overlooked in selecting breeding ewes. A ewe yielding less than eight pounds, except in the case of a few breeds, should be discarded unless she is an exceptional producer of lambs. To get a fleece of desirable weight, the body must be densely covered with wool of good length—at least $2\frac{1}{2}$ inches for one year's growth. The purchaser should see to it that the belly is well covered and that the wool extends at least to the knees and hocks. A good fleece is even in quality, bright in color, free

from dark fibres, and shows crimps or waves from the tip of the fibre to the skin. In addition to its commercial value a dense, compact fleece, completely covering the body of the ewe, protects the ewe's health by keeping her skin dry and by lessening the effects of sudden changes in temperature.

Size and Breeding. Choose ewes that are similar in size and breeding. Good size and good breeding tend to insure greater



Fig. 6.—A poor type of grade ewe. This ewe does not have the straight lines and the capacity for feed shown by the ewe in Fig. 5. She lacks the appearance of health and vigor and her fleece is not of good quality. This type should be avoided.

uniformity and value in the lamb and wool crops. Ewes having capacious bodies and straight body lines are likely to have well-formed lambs and to nourish them well; and tidy, well-nourished lambs are ready to market sooner than any other kind.

If it is decided to purchase purebred ewes, inquiries regarding breeders may be made of farm advisers or the College of Agriculture. In selecting such ewes it will be advisable to have the assistance of someone who is familiar with the characteristics of the breed desired.

Experience Best Gained With Small Flock

At least two ewes are required for a breeding project. More than this number may be desirable, but usually a flock of ten ewes is as large as a club member can handle without neglecting the educational side of the project. With a flock of this size, the young flock master can study each ewe and develop conceptions of the type of ewe that is prolific, motherly, and able to produce enough milk to grow her lambs rapidly. He can likewise learn to recognize certain preliminary symptoms of ill health, an essential part of the training of a good shepherd.

Select a Purebred Ram

While one may have satisfactory results in working with grade ewes, a purebred ram such as shown in Fig. 7 should always be used in the breeding project. The selection of a ram requires more care even than the selection of ewes, for thru the continued use of good purebred rams a grade flock may be markedly improved. With grade rams but little improvement is possible.

Purebred rams may be located by the same means as that suggested for purebred ewes on page 9. Stated briefly, the ram selected should be:

1. A purebred.
2. Active, vigorous, and from one to three years old.
3. Masculine in head features and strong in constitution.
4. Symmetrical and evenly developed.
5. Covered with firm flesh.
6. Strong and straight in the legs.
7. Evenly covered with a dense fleece.

THINGS TO OBSERVE IN THE BREEDING SEASON

Careful Mating

In many cases it is best for members to cooperate in securing rams for the club and to breed the ewes as a flock rather than leave each individual club member to arrange for breeding. Under this plan it is necessary to obtain a suitable pasture where the flocks can be kept during the breeding season.

To be in proper condition at mating time, ewes should be gaining rather than losing weight. If they are thriving, they are more likely to come in heat, and all may be bred within three or four weeks. Ewes that have raised lambs are often in thin condition as the breeding season approaches. Hence, about two weeks before the ram is put with them, they should be given extra feed by being turned into a more luxuriant pasture than



Fig. 7.—A good type of ram. Ruggedness, masculinity, and alertness are all in evidence in this Shropshire ram, which displays, in true fashion, characters peculiar to his breed. Ewes for club work should be bred to rams of this type from the breed selected.

they have had or by being given about one-half pound of grain per head daily in addition to their usual pasture. Fresh growths of rape make good pasture at this time. It is not satisfactory, as a rule, to give the ewes access to very succulent grazing, such as second-growth clover. A fairly luxuriant growth of bluegrass,

timothy, or mixed grasses makes an excellent pasture during the breeding season.

Marking Ewes and Lambs

The ewes belonging to each club member may be given a distinguishing mark by a series of notches in the edge of the ears (Fig. 8). This will identify the individual members of the flock, and if the plan is continued with the lambs the marks

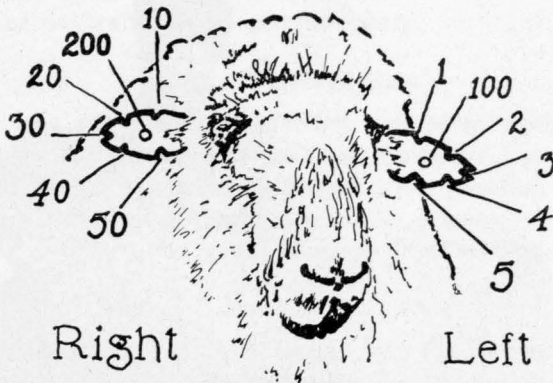


Fig. 8.—Notching the ears of ewes and lambs will identify the individual from others in the flock and indicate its dam. Five notches in each ear have the values shown above. Numbers 6, 7, 8, and 9 are built by combining notches 4 and 2, 4 and 3, 5 and 3, and 5 and 4 on the left ear. On the right ear combinations of tens will give the numbers 60, 70, 80, and 90. A hole in the left ear is 100 and in the right 200. Thus the number 133 would be indicated by a hole in the left ear and a notch in the end of each ear. Number 237 would be indicated by a hole in the right ear, a notch in the end of the right ear, and two notches (those for 3 and 4) in the left ear. By such combinations any number can be secured.

will not only identify them but will also indicate their dam. These notches may be made with an ear marker or leather punch.

Another way to mark sheep is to insert initialed and numbered metal tags on the underside of the ear fairly close to the head. Still another method, which is only temporary, however, is to stencil some distinguishing number or mark on the back or

sides of the ewe with soluble paint or Kemp's branding fluid. Ordinary paint should not be used as it cannot be removed from the wool by the manufacturer in the usual cleaning process.

Trimming Docks and Feet

It is good practice to pen the ewes before turning them with the ram and look them over carefully. During this inspection some ewes will be observed to have accumulated filth around the dock. Such "tags" should be clipped off with the shears. It is a good thing to trim the feet if they are uneven. If neglected, uneven feet may cause an animal to stand improperly; or the outer part of the hoof may turn under, forming a pocket that becomes filled with dirt and leads to a diseased condition of the hoof. A pair of sharp pruning shears is a good tool for trimming feet. Set the sheep on its rump and cut off the surplus portion of the hoof. When properly trimmed, the sides of the hoof will be level with the sole.

Keep Ram in Good Condition

The ram will be most active if in medium flesh during the breeding season. If of medium size, he should receive at least one pound per day of some grain mixture, such as three parts of oats and one part of wheat bran, by weight. Before turning him with the ewes if he is very heavily woolled, the wool on his belly should be clipped short several inches in front of the penis. Careful observations have shown that a vigorous ram from one to four years old is sufficient for 35 to 50 ewes even if allowed to run with them all of the time.

The ram should be left with the ewes until it is fairly certain that all of them have been served. Notice the behaviour of the ram. If he grazes somewhat apart from the ewes, it may be an indication that the ewes have ceased or about ceased to come in heat. If the ram appears not to be serving the ewes, it will be best to try another ram. Generally, ewes of the mutton-type breeds do not begin coming in heat until there are cool nights in early fall.

Some attempt should be made to determine the date that the ewes are bred. This may be nothing more than the record-

ing of the date that the ram is turned in with them, or daily or weekly observations may be made. By daubing some marking fluid every two days between the front legs of the ram, he will mark the ewes that he serves. Such marking fluids may be made by mixing lamp black or red or yellow ochre with cylinder oil. Sixteen or seventeen days after the ram is first marked, some fluid of a different color may be placed on the ram. This will enable the caretaker to detect when the ewes are bred, and thus he can keep a record of their breeding dates. Such a record will enable one to prepare more definitely for lambing time.

Arrange Breeding Date to Fit Good Lambing Time

As a rule it is best to breed ewes so as to have the lambs come in February or March. If the lambs are not to be kept for show or breeding purposes, they should be ready for market at weaning time. This will be in June or July, when they are about four months old. This plan is of advantage for the following reasons:

1. The member has time in February and March to devote to lambing.
2. Lambs marketed at weaning time still have their "baby fat," which they may later lose and which is expensive to replace.
3. Often lambs do not gain in weight during July and August, owing to hot weather and parasites, but if dropped early they are better able to resist these hardships.
4. The market demand for lambs weighing 65 to 70 pounds is generally good in June and July.
5. Early lambs will be better developed at show time than those dropped late.

Winter Management of the Ewes

Preparation for the winter season will consist of providing an adequate and suitable supply of feeds, proper pasture, and comfortable winter quarters (Figs. 9 and 10).

Avoid Ticks and Lice

If external parasites are present, such as ticks and lice, the ewes and rams should be dipped before they are put into winter quarters. Prepared dips can be purchased and directions for

using them will usually be found on the containers. The dipping should be done on a warm day to avoid danger from colds. Further suggestions for dipping will be found in Farmers' Bulletin 798 of the U. S. Department of Agriculture.

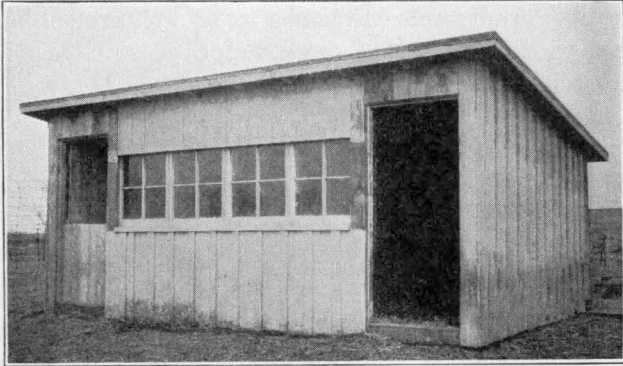


Fig. 9.—A good house for a small flock. With two doors and 4 removable window sashes, a house of this type will serve for a small flock in practically all weather conditions. Note the half-doors which can be used to confine the flock and at the same time permit ample ventilation.

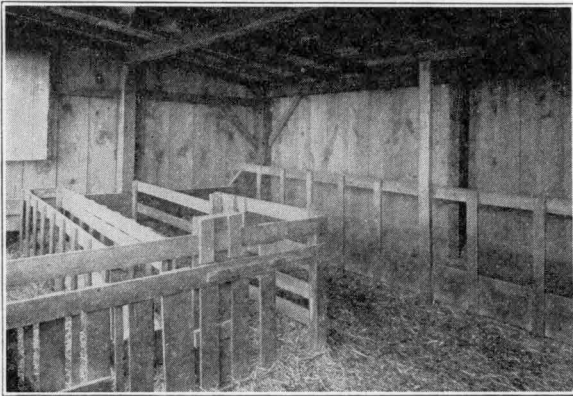


Fig. 10.—A well-arranged interior. This is an inside view of the house shown in Fig. 9. A penned-off section is provided for the lambs, which they reach thru a door too small for the ewes to enter. A feed rack for the lambs is placed within the inclosure and another is provided on the back of the wall of the house for the ewes. The house is well lighted.

Feed to Meet Ewes' Needs

Early in the pregnancy period ewes are able to utilize rough, waste feeds as a part of their ration. They may be allowed to glean over the entire farm after the crops have been removed in the fall, cleaning up stubble fields and fence corners. The club member who wants his lambs to be well grown, however, will need to have on hand a good supply of suitable feeds for the pregnant and nursing ewes and the young lambs. Having selected good feeds he must then know how to combine them to get the proper balance in the ration.

The value of a feed is determined largely by its content of proteins, carbohydrates, fats, minerals, and vitamins. *Protein* is essential for the building of muscle tissue and the growth of wool. *Carbohydrates* and *fats* are used in the body to provide heat or energy or are stored as animal fats. *Minerals* are necessary for skeletal growth and the performance of vital functions of the body. *Vitamins* contribute to growth, to the reproductive processes, and to the animal's vitality.

Feeds vary considerably in the percentage of the above nutrients which they contain. Some are almost or entirely lacking in one or more of these substances. Feeds such as the grains or their by-products are termed *concentrates* because they contain a high proportion of digestible nutrients. Hays, straws, and similar feeds are referred to as *roughages*. Sheep cannot be fed successfully on concentrates alone. They require considerable bulk in their rations, which is supplied by the roughages.

How some of the feeds vary in their content of protein, carbohydrates, and fats is shown in Table 1. The column at the right side of this table, headed "Nutritive ratio" contains a series of figures which express the relation between the amount of digestible crude protein in a given feed and the amount of digestible carbohydrates and fats. It is worth while to understand the meaning of the nutritive ratio and how it is arrived at since scientific feeding is commonly based on its use. Take dent corn for example. The table shows the nutritive ratio of this feed to be 1 to 10.4. This means that if the value of 1 be given to the amount of digestible crude protein (7.5 pounds) in 100 pounds of

TABLE 1.—COMPOSITION OF SOME COMMON FEEDS¹

Kind of feed	Total dry matter in 100 pounds of feeds	Digestible nutrients in 100 pounds of feed				Nutritive ratio ² of feeds
		Crude protein	Carbo-hydrates	Fat	Total	
<i>Concentrates</i>	<i>lbs.</i>	<i>lbs.</i>	<i>lbs.</i>	<i>lbs.</i>	<i>lbs.</i>	
Corn (dent).....	89.5	7.5	67.8	4.6	85.7	1:10.4
Oats.....	90.8	9.7	52.1	3.8	70.4	1:6.3
Wheat bran.....	89.9	12.5	41.6	3.0	60.9	1:3.9
Linseed oil meal, old process....	90.9	30.2	32.6	6.7	77.9	1:1.6
Cottonseed meal..	92.5	37.0	21.8	8.6	78.2	1:1.1
Corn-and-cob meal	89.6	6.1	63.7	3.7	78.1	1:11.8
Soybean seed.....	90.1	33.2	24.7	16.1	94.1	1:1.8
Soybean oil meal..	89.5	39.7	34.7	4.5	84.5	1:1.1
<i>Roughages</i>						
Timothy.....	88.4	3.0	42.8	1.2	48.5	1:15.2
Corn stover (dry)..	90.6	2.2	47.8	1.0	52.2	1:22.7
Oats straw.....	88.5	1.0	42.6	.9	45.6	1:44.6
Alfalfa hay.....	91.4	10.6	39.0	.9	51.6	1:3.9
Clover hay (red)..	87.1	7.6	39.3	1.8	50.9	1:5.7
Soybean hay.....	91.4	11.7	39.2	1.2	53.6	1:3.6
Bluegrass pasture.	23.8	3.7	10.4	.8	15.9	1:3.3
Corn silage.....	26.3	1.1	15.0	.7	17.7	1:15.1

¹From Henry and Morrison's, "Feeds and Feeding." ²This ratio is obtained by adding $2\frac{1}{4}$ times the amount of fat to the amount of carbohydrates and dividing the sum by the amount of crude digestible protein.

this feed, the combined carbohydrates (67.8 pounds) and fat (4.6 pounds) have a value of 10.4.

In determining this figure, 10.4, carbohydrates and fats are combined. This is done because these nutrients serve essentially the same purpose in the body. Since fat has an energy value per pound equal to $2\frac{1}{4}$ pounds of carbohydrates, the amount of fat is multiplied by $2\frac{1}{4}$ before it is added to the carbohydrates. The fat content of corn is 4.6. This multiplied by $2\frac{1}{4}$ is 10.35. 67.8 (the amount of carbohydrates) plus 10.35 is 78.15. We might say, then, that the nutritive ratio of dent corn is 7.5 to 78.15. We find by dividing 78.15 by 7.5 that 78.15 is 10.4 times as large as 7.5. The ratio is then more simply expressed as 1 to 10.4, and there is the added advantage that by using the common figure 1 to represent the digestible crude protein in each feed, it is easy to compare the nutritive ratios of the various feeds.

A good ration for sheep contains 1 part digestible crude protein to 6 or 8 parts of the other nutrients. Since no one feed will furnish this ratio and supply the necessary bulk for proper digestion, a combination of feeds is selected which will do so. The nutritive ratio can be figured for a combination of feeds as well as for one feed. Practice in figuring the nutritive ratio of rations can be obtained by applying the values shown in Table 1 to the feeds listed in the rations below. Any feed listed in the table which will not change the desired nutritive ratio, or balance, may be substituted for another in the ration. After some practice the club member will be able to combine the regular feeds found on his home farm so as to secure a properly balanced ration, or lacking some of the necessary feeds, he will know what to purchase.

Pasture and legume roughage may be expected to provide the vitamins. Ewes can be wintered on good clean clover or alfalfa hay, which usually furnishes an adequate supply of protein and mineral matter. In addition corn, oats, and perhaps some linseed or cottonseed cake or meal should be available. The two latter feeds will be especially necessary if oats straw or corn stover (which are deficient in protein) are used in the ration.

During the period of pregnancy the ewes should gain from 15 to 25 pounds, for they will lose at least this much in the weight of the lamb and surrounding membranes and fluids. It probably will not be necessary to feed any grain until the last month before lambing.

Suggested Rations for Ewes

The following rations have given good results when fed to pregnant ewes. The club member may select one for which he has feeds available. The amounts given are in pounds and are approximate average daily requirements for ewes weighing 125 to 150 pounds. The amounts should be increased or reduced according to the size and condition of the ewes.

Ration 1

Oats.....	5 parts	}	<i>Daily</i> ½ to ¾ lb.
Shelled corn.....	3 parts		
Bran.....	1 part		
Linseed oil meal.....	1 part		

Corn silage.....	2 lbs.
Legume hays.....	2 lbs.
Oat straw.....	1 lb.

Ration 2

Oats and shelled corn, one month before lambing.....	1/2 to 3/4 lb.
Legume hays.....	2 to 3 lbs.
Corn silage.....	2 to 3 lbs.

Ration 3

Oats and shelled corn.....	1/2 to 3/4 lb.
Legume hays.....	2 to 3 lbs.
Oat straw or corn stover.....	1 to 2 lbs.

Ration 4

Oats and corn, equal parts, one month before lambing.....	1/2 to 3/4 lb.
Alfalfa, clover, soybean or mixed hays.....	3 to 4 lbs.

Ration 5

Legume hays.....	1 1/2 to 3 lbs.
Pasture: bluegrass, etc.	

Ration 6

Corn silage.....	3 to 4 lbs.
Alfalfa or clover hay.....	2 to 3 lbs.

Suitable Feed Racks

The matter of providing suitable racks and troughs is important, for sheep are dainty in their feeding habits and relish clean feed. Racks and troughs should be so constructed as to minimize the waste of feed and keep the fleece as clean as possible (Fig. 11).

Shelter and Exercise

Except during the lambing period, sheep do not require so warm a shelter as do other animals. A three-sided shed, open to the south, dry and free from cracks, is ideal.

Pregnant ewes should be protected from cold rains and storms. The sheds should have wide doors and be free from sharp projections which might cause injury and abortion. Ten square feet is barely enough room per ewe before lambing, and at least 16 square feet per ewe should be provided afterwards. It is best not to turn the ewes with cattle or hogs.

All sheep, and especially pregnant ewes, must have exercise to keep them vigorous and healthy. Lack of exercise and im-

proper feeding are considered common causes of weakness and paralysis in ewes just before lambing. Exercise may be provided by turning the ewes on bluegrass pasture during the day, or

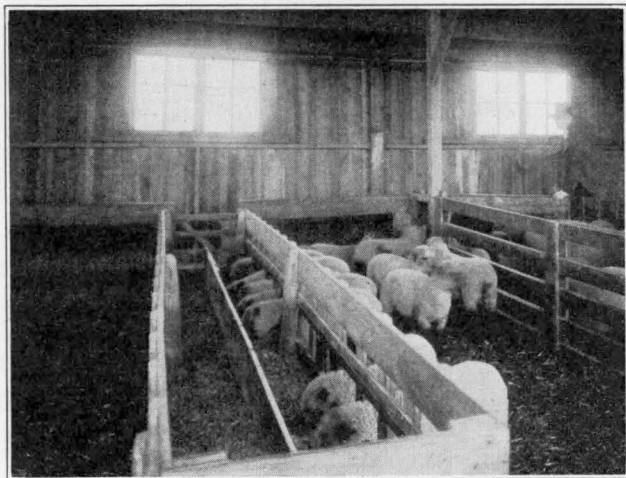


Fig. 11.—A well-designed feed rack. This type of rack provided space for grain as well as hay. The dividing board down the center allows sheep to feed from either side or from both sides at once. The straight sides prevent chaff from falling into the fleece.

if this is not available they may be driven half a mile daily. The ewes should not be subjected to violent exertions such as walking thru deep mud or very heavy snow.

PROBLEMS OF THE LAMBING PERIOD

Have Separate Pen for Each Ewe

The club member should plan to give added attention to the flock at lambing time. Among other things, he should construct individual lambing pens where the ewes that show signs of lambing can be confined. These pens can be made by placing together hurdles 4 to 6 feet long. If the hurdles are fastened together with hinges, the pens are very easily arranged. It is essential that the pen be clean and bedded with clean straw.

Ewes should be left in these individual pens for two or three days after they have lambed. If the weather is cold, some way should be found to provide warm quarters for the new-born lamb so that it will not become chilled.

Reduce Feed of Ewe

It is not a good practice to feed ewes heavily just before lambing. Much grain at this time may result in too great a stimulation of the milk flow and lead to udder troubles. If properly fed, the ewe will show a somewhat laxative condition at lambing.

Have Necessary Supplies on Hand

There are a few drugs and appliances which should be secured before the lambing season starts. The more important of these are:

1. Epsom salts and castor oil, or raw linseed oil, to be used as a laxative.
2. Tincture of iodine to be used on navels and swollen udders.
3. Swan-bill nipples for feeding milk to orphan lambs.
4. A metal syringe provided with a large nozzle and also a small one suitable for giving injections to young lambs.

How to Help Ewe in Labor

Profitable livestock husbandry depends on the maintaining of health in the flock and herds and this requires at times more technical knowledge than most laymen can hope to acquire. If there is a competent veterinarian within reasonable distance, the club member will do well to establish contact with him and be ready to call him during the lambing period when help is needed. However, if the veterinarian lives some distance away, and the ewes are grades, the expense may make it impractical to call him to treat individual cases of noncontagious diseases. Then, too, immediate attention even if unskilled, often, is of the utmost importance. Hence anyone who is caring for lambing ewes should know how to render first aid in an emergency. It is recommended that a club member know these first-aid measures and also that he have the help of some experienced person.

When the ewe is giving birth to the lamb, do not disturb her so long as everything seems to be going well. If she must have help (which she should have if little or no progress is being made after much laboring), the first thing to do is to learn what position the lamb is in. To be delivered alive, it should be presented forefeet first, with the nose lying between the forelegs. This is the normal position for birth altho many lambs are delivered hind legs first. Before entering the ewe to get the lamb into the proper position, the hand should be disinfected and smeared with vaseline or oil. Care should be used not to tear the parts of the ewe, and it may be inadvisable for a person with a large hand to attempt the operation. Pull steadily on the lamb slightly downward toward the ewe's udder and use most strength in pulling when the ewe labors. Be sure to keep the head coming with the forefeet until the nose is exposed. Apply tincture of iodine to the navel cord of the new-born lamb as an aid in preventing infection.

Watch Ewe Closely for Several Days

Soon after the lamb is born, a little milk should be drawn from the ewe in order to make sure that the milk channels are opened so that the lamb can draw the milk. Give the ewe close attention for several days. Note whether she casts the placenta (after-birth) and whether her feces are normal. Do not worry if she refuses to eat for the first three to six hours after lambing, but if she continues to refuse feed, make sure that her bowels are in good condition. If she is constipated, give as a drench 4 ounces (one-third pint) of raw linseed oil, or 4 to 5 ounces of epsom salts dissolved in water. For a very quick-acting physic, 2 ounces (4 tablespoonfuls) of raw linseed oil with 4 ounces of epsom salts may be used. As an aid to the appetite, the ewe may be given three times daily a teaspoonful each of tincture of gentian and ginger in one-half pint of lukewarm water. If the ewe fails to cast the after-birth, a veterinarian should be called. Watch her udder. Milk her if the lamb does not take most of the milk; this will reduce the danger of a caked udder. Do not expose her to cold drafts. Give her all the water she wants, but not large quantities at one time, and see that it is not

so cold as to chill her. Give her good feed, such as clover hay and oats; feed grain sparingly for two or three days after the lamb is born.

Give Suckling Ewes Plenty of Good Feed

After the lambs are three or four days old, their mothers should be given a liberal allowance of nourishing feeds. This is the time when the good milking ewe proves her worth, for such a ewe will often raise twin lambs better than a poor milker will raise a single lamb. For a ewe weighing about 150 pounds a good ration is:

Oats, 5 parts by weight	} 1 to 1¼ pounds daily
Corn, 3 parts by weight	
Wheat bran, 1 part by weight	
Linseed meal, 1 part by weight	
Alfalfa, clover, soybean hay: 2 to 3 pounds daily.	

In addition, the ewes may be given good, mold-free silage if available. Rations 1, 2, 3, and 4 given on pages 18 and 19 may be fed to suckling ewes if the amount of grain is increased about ½ pound. Suckling ewes need grain until good pastures are available.

Examine Udder Frequently

If the ewe's udder is swollen, keep it milked out and paint it twice a day with tincture of iodine until the swelling begins to go down, and thereafter paint it once a day until it is evident that further treatment is unnecessary. If pus forms, make an opening for drainage and wash the affected part once a day with a good disinfectant.

Ewes with swollen udders should be removed to comfortable quarters outside the sheep barn, for their trouble may be caused by an infection that will spread thru the flock. Since the milk from swollen udders may be poisonous, the lambs should be taken away from their mothers and fed by hand until the swelling subsides, and the milk is again normal.

Sore teats in ewes are most often caused by the formation of pock-like sores, but sometimes by the long, sharp teeth of the lamb. As soon as the pock-sores are discovered, they should be opened and washed twice a day with a good disinfectant or treated with tincture of iodine. If the lamb's teeth make the

teats very sore, the ewe will refuse to let the lamb nurse, and it will be necessary to feed the lamb and milk the ewe.

Weak Lambs Need Special Care

Little attention need be given the strong lamb whose mother has milk, except perhaps to see that it finds the teat. If its mother has no milk, it is best at first to take a little from a ewe that has more than enough for her lamb. The next best thing to do is to feed cow's whole milk, giving about 2 table-spoonfuls every two or three hours. The milk should have a temperature of about 90° F. All utensils in which milk is placed must be kept thoroly cleaned.

A lamb too weak to stand to nurse should be helped to get a fill of its mother's milk soon after birth. If it is anxious to nurse, back the ewe into a corner and hold the lamb to the teat. Stimulate its desire to nurse by milking into its mouth. If it refuses to nurse, draw some milk from the ewe, and feed the lamb from a bottle until it gains in strength and develops a strong appetite.

One of the best ways to handle a chilled lamb is to place all but its head in warm water. This should be as warm as one's elbow can bear and should be kept at this temperature. When the lamb becomes somewhat lively, take it out of the bath, and rub it briskly with a coarse cloth until it is almost dry. Then feed it, wrap all but its nose in a thick blanket or cloth, and put it in a warm place to sleep. Return it to its mother when it has become strong.

Have Each Ewe Raise a Lamb

If a ewe disowns her lamb, try to get her to claim it. Since a ewe recognizes her lamb at first wholly by smell, it may help in getting her to own her lamb to smear on her nose and on the rump of her lamb some of her milk. Another way is to tie the ewe in the lambing pen, where it is easy to hold her and force her to let the lamb nurse often. Usually she will not need to be kept tied for more than three or four days.

When the disowned lamb is one of a pair of twins, both lambs may be placed in a pen next that occupied by the ewe so that she can see them, and both should always be put with her at the

same time. In her anxiety to nurse the lamb she claims, she is likely to let the other one nurse also.

If a ewe loses her lamb and has a good supply of milk, an attempt should be made to have her raise another, an orphan or one not getting enough milk from its mother. If she has just lost her lamb, she may be induced to take another if the skin of the dead lamb is removed immediately and placed on the stranger. The skin should not be left on for more than a few hours. The suggestions given above for getting a ewe to claim her own lamb may also be employed.

CARE OF THE GROWING LAMB

Lambs begin to eat grain and hay when 8 to 16 days old, and club members should be prepared to satisfy their appetites for such feeds. This is the time when the lambs will make the greatest gains for the amount of feed consumed, and a shepherd should therefore make the most of this period. Until lambs are five or six weeks old, the grain should be ground. After that period whole grain, unless very hard, can be fed.

A homemade self-feeder that is inexpensive and satisfactory is shown in Fig. 12.

A Good Ration for Young Lambs

The following grain mixture is recommended for young lambs:

Ground corn.....	2 parts by weight
Crushed oats.....	2 parts by weight
Linseed oil meal.....	1 part by weight
Wheat bran.....	1 part by weight

Besides the above feeds, small amounts of ground soybeans and soybean oil meal are relished by lambs. A legume hay—clover, alfalfa or soybean—that is clean and bright, is desirable roughage to give with the above grain ration. If the lambs are fed good alfalfa, clover, or soybean hay, a grain mixture of ground corn and crushed oats, equal parts by weight, may be used instead of the above and good results secured. The above ration is better, however, because it has variety and therefore stimulates the appetites of the lambs to a greater extent and

produces more rapid growth. The wheat bran and oat hulls contain needed mineral matter and add bulk to the ration, aiding in the development of capacity for feed.

Only the choicest hays and grains should be given to lambs. It is considered advantageous to feed cut hay, altho this is not essential. Lambs grow best when they have all the grain and hay they will eat in addition to their mother's milk. It is not

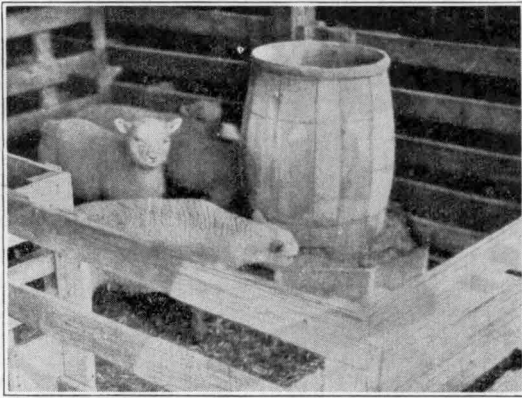


Fig. 12.—An inexpensive homemade self-feeder made from an empty salt barrel. Four inches were cut from the ends of all but three staves to allow the feed to run into the trough. The barrel is fastened to the floor of the octagonal trough by these staves.

good practice to put more feed in the troughs and racks than the lambs will eat in about half a day, as the part that is left will not remain fresh long after the lambs have eaten from it.

Lamb Creeps

A lamb creep is an enclosure into which the lambs, but not the ewes, can pass (Fig. 13). Here is placed the feed for the lambs. Troughs may be made to hold both grain and hay. A flat-bottomed feed rack, similar to that described on page 19, is suitable. Keep the feed rack clean. If it becomes soiled, scrub it thoroly.

Dock Lambs When Two Weeks Old

Failure to dock and castrate lambs intended for market has been characterized as the great neglect of sheep husbandry in Illinois and other central states. This neglect undoubtedly arises from a failure to appreciate the necessity for docking and a



Fig. 13.—A lamb creep in the field. These well-fed lambs show the advantage which comes from having their grain where the ewes cannot reach it.

mistaken idea of the danger involved. It is best to dock lambs when they are about two weeks old. The reasons for docking may be summarized as follows:

1. Filth may collect in the wool on the tail. In warm weather this provides a breeding place for maggots which burrow under the skin causing sores, infection, and ill-health.

2. The tail is of no use to the animal and a long tail on a ewe may sometimes interfere with mating.

3. When sheep are marketed, buyers favor those that are docked. Docking adds to the appearance of the animal, showing the development of the hind quarters, and is evidence of good shepherding.

There are several methods of docking lambs. Either a knife or an emasculator is recommended. Probably a sharp knife will be used by most club members. The lamb should be held by an

assistant in the manner shown in Fig. 14. When using a knife, grasp the tail by the end, and with a quick, drawing motion cut it

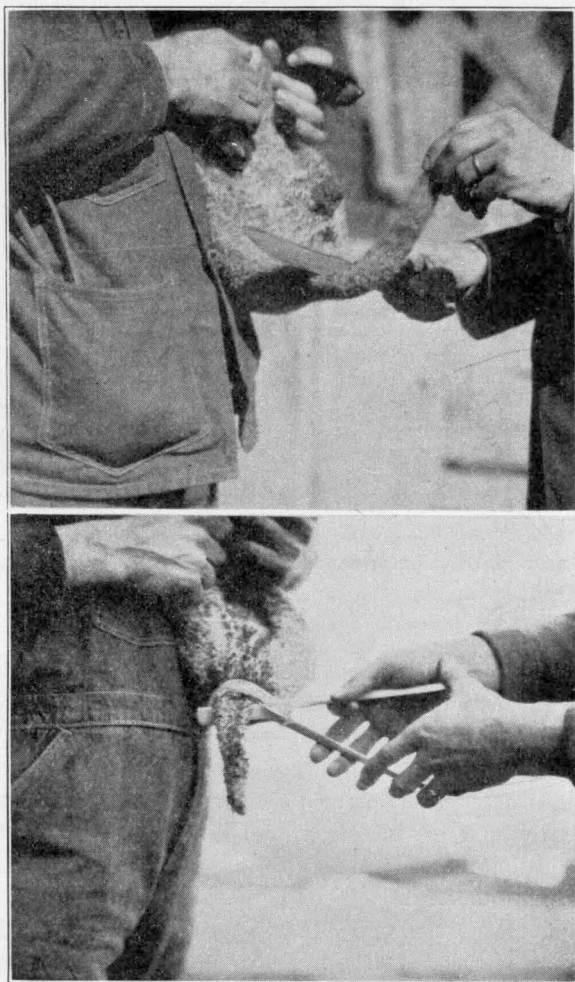


Fig. 14.—*Above*, docking the lamb with a sharp knife. The lamb is held securely by both front and hind feet, and the tail is removed with a quick, downward motion of the knife. *Below*, docking the lamb with an emasculator. Rightly done, this method causes less bleeding than the knife. The handles of the instrument should be closed completely but not too rapidly. Note that the cutting edge is away from the lamb.

off, leaving a stub about 1 to 1¼ inches long. Tie a string fairly tightly around the dock to check bleeding. Disinfect the wound with tincture of iodine. Remove the string in 2 to 4 hours.

The advantage of the emasculator is that it prevents bleeding. In using the emasculator, place it around the tail about an inch from the body, as shown in Fig. 14. The cutting edge must be the farthest from the body. Close the emasculator completely but not too rapidly or bleeding may occur. Disinfect the dock as when using the knife.

Castrate Lambs Early

All grade ram lambs and all but the exceptionally good purebred ram lambs should be castrated. Some of the reasons for castrating are as follows:

1. Wether lambs almost always sell for more per pound than ram lambs.
2. The carcasses of wether lambs are better than those of ram lambs, as they generally show more quality and have more fat.
3. Wethers are easier to handle than ram lambs and they need not be separated from the ewe lambs.

Ram lambs may be castrated at the same time they are docked. Under proper sanitary conditions, there is little danger in castration if it is done at the right time. Inexperienced club members will need the assistance of some one who has had experience in such work. Choose a clear, warm day for the operation in order to lessen the danger of the lambs taking cold and in order that they may be as comfortable as possible.

To castrate lambs with a minimum of pain, loss of blood, and danger of infection, proceed as follows:

Hold the lamb in a position similar to that for docking. In this position the lamb is easily controlled and the glands hang well down.

Take the end of the scrotum firmly in the left hand and pull away from the testicles. Cut off the lower third of the scrotum, using care not to cut into the testicles. This will leave both testicles partially exposed.

Push back the membranes covering one testicle, grasp the cords at the upper end of the testicle, and draw these out, to-

gether with the testicle. If an emasculator is available, place it around the cords and membranes above the point where they are held, and cut them off rather than draw them out. Remove the second testicle in the same way.

When both testicles have been removed, pour tincture of iodine into the wound and apply a little vaseline.

Place the lamb in a clean, freshly bedded pen or on a clean grass pasture and watch him for a few days. If pus should form in the wound, make an opening to permit drainage and treat as before.

Unless one is skilful in doing such work as castrating, it is advisable to call on a veterinarian for his help.

Turning Ewes and Lambs on Pasture

When pastures become available, the ewes and their lambs will get most of their feed from them. If the pastures are very good, the ewes will often do well without extra feed.

Some pastures, notably alfalfa and clovers, may cause sheep to bloat. This condition seems to vary considerably with individual sheep and also seems to be worse during wet seasons. Precautions should be taken to avoid bloat, but if it occurs and is severe, relief must be obtained quickly. The following recommendations for treatment are taken from Farmers' Bulletin 1155, U. S. Department of Agriculture.

"In acute cases the flank should be punctured in its most prominent part with a clean trocar and cannula and the trocar withdrawn to allow the gas to escape thru the cannula. A stomach tube or small rubber tube passed down the gullet serves the same purpose. Large doses of antiferments and stimulants, such as aromatic spirits of ammonia, $\frac{1}{2}$ ounce in 5 ounces of water, and turpentine, $\frac{1}{2}$ ounce in 6 ounces of linseed or castor oil, should be given. Driving the animals thru cold water or pouring cold water over the body is beneficial. Keeping the mouth open by gagging with a smooth stick tied behind the ears, and massaging the paunch with the fist against the left flank, will aid in causing a belching of gas."

Give Lambs Some Grain While on Pasture

Every club member will want his lambs to grow well and to remain fat. Thin lambs do not sell well, and fat lambs win over them in both the fat and breeding classes when they compete for prizes. The feeding of grain to lambs while they are on pasture

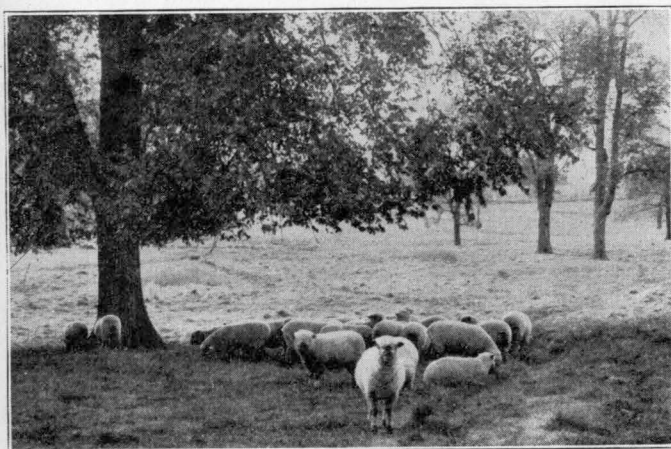


Fig. 15.—An ideal pasture for sheep. A luxurious growth of bluegrass and plenty of shade are essential considerations. Rolling ground, such as shown, is also desirable. A flock of this size or larger can be handled well on most Illinois farms. Every SHEEP CLUB member should look forward to the time when he can have such a flock.

is usually a good investment. Lambs should have some grain in order to be well grown and fat. A satisfactory grain mixture for lambs three to five months old is:

Whole oats.....	5 parts by weight
Shelled corn.....	5 parts by weight
Wheat bran.....	1 part by weight
Linseed oil meal.....	1 part by weight

While not so good as the above mixture, whole oats and shelled corn in equal parts by weight make a ration on which lambs will do well at this age.

If the lambs have not been weaned, they may be fed in creeps in the pasture. They will probably not consume more than $\frac{1}{2}$ pound of grain daily when on pasture and still nursing.

Wean Lambs at Four Months

Lambs may be weaned when they are four months old. If the ewes are furnishing plenty of milk, weaning may be postponed until the lambs are five months old. On the other hand, if the ewes are giving small amounts of milk, they and their lambs will be better off, particularly in hot weather, if the lambs are weaned.

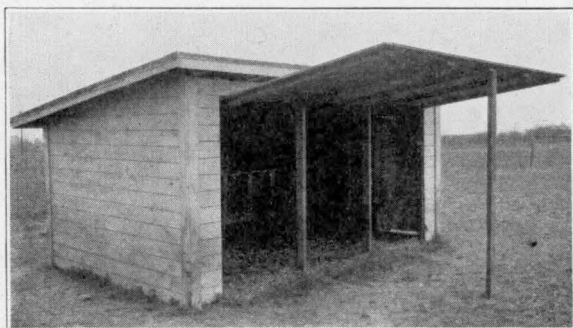


Fig. 16.—A good type of field shed for shelter. This shed is built on skids and is equipped inside with a feed rack. In pastures that have no trees, a shed like this is particularly useful, supplying the needed shade. If equipped with windows, it would be equally serviceable as a shelter in winter.

In weaning lambs it is best to separate them and their mothers completely. If possible, the lambs should be put on fresh pasture, where feed is plentiful and where they will not be subjected to infestation with internal parasites. A Sheep Club member must use discretion in these matters, remembering that proper feed and health are of first importance.

Watch Ewes' Udders at Weaning

By reducing the feed of the ewes after the lambs have been removed, the milk flow can be checked readily. It may be necessary for two or three days, however, to milk those ewes with full udders. When the milk flow of the ewes has been checked and all danger of injury to their udders is past, they may be turned on good pasture to get them in condition for market or

breeding. This is the time to let them glean over the farm and make use of waste roughages.

Provide Salt, Water, and Shade

Salt is essential for the well-being of sheep. It should be kept before them at all times rather than given at intervals in the feed.

A sheep that is deprived of water cannot thrive. Water is not costly. A club member should keep a fresh, clean supply before his lambs and sheep at all times.

Shade trees or open sheds such as shown in Fig. 16 help to keep sheep comfortable in summer.

GIVE PROMPT ATTENTION TO AILMENTS¹

The club member should keep constantly in mind that success is assured if he always does things better than it may be necessary to do them to just "get by." He should ask himself these questions: Do the lambs have the best care and best feeds that it is possible to give them? Is everything being done to enable them to grow and remain healthy and to keep the ewes vigorous and thrifty?

There are certain ailments of young lambs for the first appearance of which close watch should be kept, as their early detection and prompt treatment are the only ways to avoid disappointment and loss.

Navel Infection

A suggestion was made (page 22) in regard to applying a disinfectant to the navel of the lamb. Even this will not prevent all cases of navel infection but it is a worth-while precaution as treatment for this trouble, once it has developed, is usually unsatisfactory.

¹Only a very brief discussion of a few ailments of sheep can be given here. For more detailed information see Farmer's Bulletins 1330, "Parasites and Parasitic Diseases of Sheep," and also 1155, "Diseases of Sheep." Both publications are free on application to the U. S. Department of Agriculture, Washington, D. C.

Sore Eyes

Young lambs sometimes have sore eyes. As soon as this condition is noticed, the eyes should be washed twice daily with a saturated solution of boric acid and then treated with a 10-percent solution of argyrol applied with a medicine dropper. Some cases of sore eyes are very persistent, and treatment needs to be continued for a considerable time. Turned in eyelids will cause sore eyes. These sometimes correct themselves, but in very severe cases they need to be stitched back or held back with adhesive tape.

Sore Mouth

Sore mouths in lambs are caused by bacteria. Applying a fairly strong antiseptic, such as tincture of iodine, to these sores after the scabs have been removed is the standard treatment. In severe cases sores will be found inside the mouth. Repeated applications of the treatment are needed.

Pinning

"Pinning" is a trouble which may affect lambs a few days after birth. The first feces are very sticky and sometimes collect about the tail to such an extent that it is impossible for the lamb to void feces. If this is not removed, the health of the lamb will be impaired.

Indigestion, Diarrhea, and Constipation

Any one of these difficulties may occur from time to time. The most common treatment is a laxative, usually castor oil—a teaspoonful to a tablespoonful, depending upon the size and age of the lamb. Milk of magnesia may be used. The dose is the same as for castor oil.

Stomach Worms

The most troublesome internal parasite affecting sheep and lambs in Illinois is the stomach worm. The adult worms are about the size of a pin, about one inch long, red and white in color and are found in the fourth compartment of the stomach.

Here the females lay enormous numbers of eggs, which are passed with the feces and which hatch and develop into larvae on the pastures. These larvae are taken into the stomach when the pastures are grazed by sheep and lambs and there develop into mature worms.

The symptoms of infestation are loss of appetite, scouring, pale, "papery" skin, paleness of the inner part of the eyelids, emaciation and extreme dullness. Death of lambs is not uncommon.

The use of clean pastures is a great aid in controlling and preventing stomach worm troubles. This is also good pasture management. Pastures on which there have been no sheep with stomach infestation for a year are considered fairly safe. In case treatment is necessary the inexperienced shepherd should consult a competent veterinarian.

Ticks and Lice

The common external parasites of sheep are ticks and lice. These are very annoying when numerous. The use of a good dip is the only satisfactory method for their destruction. In cases of heavy infestation it is advisable to dip the entire flock at intervals of two to three weeks until examination shows them to be free of the infestation. (See page 14.)

WOOL CROP GOOD SOURCE OF INCOME

It is important to take care of the wool crop. Generally from 30 to 40 percent of the total income from sheep is derived from wool.

Keep the Fleece Clean

To command the best price, wool must be uniformly good. This means being free from dirt, chaff, burs, paint, and other foreign material, as well as uniform in structure, length, and strength of fiber. The cleanness of the fleece can be controlled to a large extent by any club member who will exercise the proper care. Freedom from foreign matter will depend upon using pastures that are clean and free from burs. Proper feed racks also are a factor, as well as care in feeding. The shearing

must be done in clean quarters, too, or foreign matter will get into the fleece and make it less valuable.

When wool is marketed on a graded basis, it pays to send clean fleeces to market.

Shearing and Tying

Sheep should be sheared some time between April 15 and May 15. A clean, smooth floor should be provided; and the



Fig. 17.—Shearing a sheep with power shears. Careful shearing is an important item in flock management. A skilful shearer avoids cutting the sheep and keeps the fleece intact.

sheep, while waiting their turns, should be kept in a clean pen free from manure or litter. Power shears (Fig. 17) are more satisfactory than hand shears both from the standpoint of results

and of ease of operation. A good shearer will follow closely the outline of the sheep and avoid "second cuts." Shearing should never be done when the wool is wet, since the fleece will be damaged if rolled while moist.

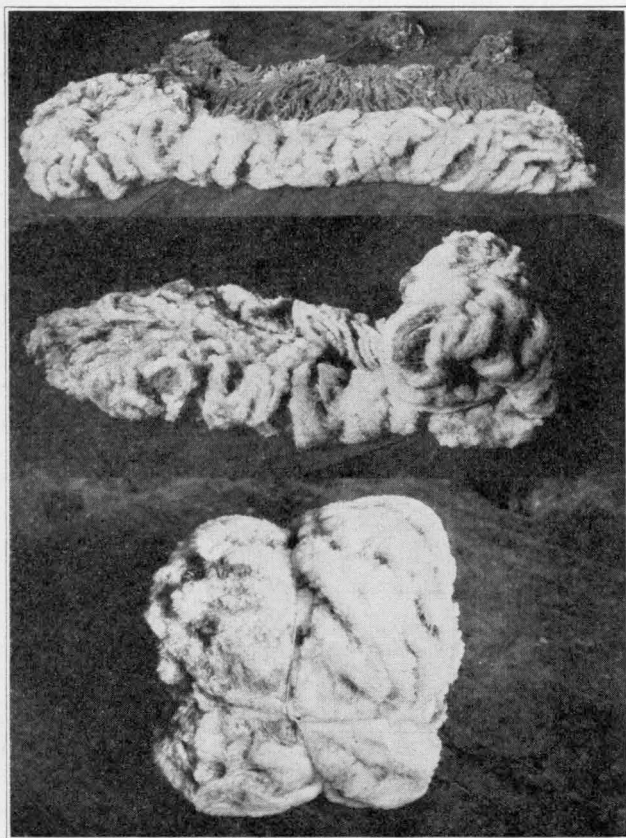


Fig. 18.—Rolling and tying the fleece. The first step in rolling the fleece is to place the flesh side down on a clean floor and turn in the leg and belly wool. After both sides are turned in, the fleece is rolled, beginning at the rump. This leaves the shoulder wool on the outside. The fleece is then tied with a smooth paper twine. Note the attractive appearance of the fleece rolled and tied in this manner.

TABLE 2.—AVERAGE RANGE IN WOOL PRODUCTION FOR SOME BREEDS OF SHEEP

Breed	Amount produced annually	Length of one year's growth	Grade ¹		Class ²
			American system ³	Bradford system ⁴	
	<i>lbs.</i>	<i>inches</i>			
Cheviot.....	6-8	3-4	$\frac{3}{8}$ and $\frac{1}{4}$	56s, 50s	Combing
Delaine Merino.....	10-15	2 $\frac{1}{2}$ -3 $\frac{1}{2}$	Fine	70s, 64s	Combing
Dorset.....	6-8	2-3	$\frac{3}{8}$ and $\frac{1}{4}$	56s, 50s, 48s	Clothing and combing
Hampshire.....	8-10	2-3	$\frac{3}{8}$ and $\frac{1}{4}$	56s, 50s, 48s	Clothing and combing
Oxford.....	9-11	3-5	$\frac{1}{4}$ and low $\frac{1}{4}$	48s, 46s	Combing
Rambouillet.....	12-16	2-3	Fine and $\frac{1}{2}$	70s, 64s, 60s	Combing and clothing
Shropshire.....	8-10	3-4	$\frac{3}{8}$ and $\frac{1}{4}$	56s, 50s	Combing
Southdown.....	5-7	2-2 $\frac{1}{2}$	$\frac{1}{2}$ and $\frac{3}{8}$	58s, 56s	Clothing
Suffolk.....	6-8	2-3	$\frac{3}{8}$ and $\frac{1}{4}$	56s, 50s	Clothing and combing
Cotswold.....	10-14	8-12	Braid and common	44s, 40s, 36s	Combing
Leicester.....	10-14	7-10	Braid and common	44s, 40s, 36s	Combing
Lincoln.....	12-16	8-12	Braid and common	44s, 40s, 36s	Combing

¹Grade refers to the fineness of the wool fibres. ²Class refers to the length of the wool fibres. ³In describing wool, the grade and class are usually combined, as " $\frac{3}{8}$ combing" or " $\frac{3}{8}$ blood combing," or "56s combing." ⁴In the Bradford system the numbers indicate spinning qualities. The larger numbers refer to the finer grades of wool.

The care of the fleece does not end with the shearing. The clean fleeces should be properly rolled, tied, and packed for shipment. If the shearing has been carefully done, the fleece will be in one piece. Tag ends are discarded, and the fleece rolled up neatly with the flesh side out. This makes it more attractive than when rolled with the flesh side in. Smooth twine should be used for tying. Paper twine is most suitable for the purpose (Fig. 18). The use of binder or sisal twine will reduce the market value of the wool, for fibers get into the wool, are woven into the cloth, and make places that are weak and do not take dyes properly. The "tags" may be sold separately.

Marketing the Clip

If possible, the entire clip of each local club in a county should be placed in a wool "pool." This is a cooperative marketing enterprise which may be arranged by the farm adviser. Tightly-woven wool sacks capable of holding about two hundred pounds each may be purchased for packing the clip. It will probably be best for each club to ship in the name of the secretary, who should have a list of the weights and descriptions of the fleeces furnished by each member.

Whether a club consigns its clip to a "pool" or whether it sells to a local buyer, its members should know something about the grading of wool. A fair idea of the kind of wool that different sheep may be expected to produce is shown in Table 2. The *class* depends upon the length of the wool and the *grade* upon the fineness of the fibers. Wool that is $2\frac{1}{2}$ inches or more in length is known as *combing* wool and is more valuable than *clothing* wool, which is less than $2\frac{1}{2}$ inches long. A third class, known as *french combing*, is sometimes used for wools that are too short for the strictly combing class.

MEASURING RESULTS IN THE SHOW RING

A club member may have done a fine job of fattening his wether lambs or of producing and growing out a group of lambs, but the project is not complete until he has entered his lambs in open competition with those of other members of the club in the show ring.

Fitting lambs for the show includes feeding, training, and trimming. The first of these points, feeding, has been discussed on the preceding pages. Economy is the watchword in production, but success in lamb raising or fattening is not measured by this point alone. Economy may be over-emphasized and a poorly developed, thin lamb be the result. The ability to tell how lambs are reacting to their feed and the knowledge of what to do in each individual case comes largely with observation and experience.

The well-fleshed lamb must then be trained for handling by the judges and trimmed according to specifications of experienced shepherds in order to make its best possible appearance in the show ring (Figs. 19 and 20).

Training the Lambs for Handling

It is the ambition of all club members to learn the art of skilful shepherding. How to catch a lamb, how to lead it, how to hold it, how to show it, and how to handle it in general are little things perhaps, but they set apart the real sheepman from the novice.

A lamb should be caught by grasping the hind leg at the flank or by placing the hand underneath its neck. Catching sheep by the wool is painful to the animal and may injure it.

Lambs may be trained to stand quietly and may be held securely by taking hold of the loose skin underneath the jaw, preferably with the left hand, as shown in Fig. 20. Most lambs will soon learn to stand quietly when held in this way, altho at times it may be necessary to place one hand on top of the head or at the dock. When necessary to lead a lamb, hold as above and push it along with the right hand at its dock.

To show a lamb, have it stand squarely on all four legs. The position of the legs may be arranged by using the right hand if



Fig. 19.—Clyde Lyon, a SHEEP CLUB member from Iroquois county, and his champion ewe lamb at the Illinois State Fair, 1927.



Fig. 20.—Champion pen of Cheviot ewes shown at the Illinois State Fair by Alvin Helms. One of the important requirements in selecting pen classes for the show is uniformity.

the lamb is held with the left hand. The lamb should stand with its head up and with the entire body in position to show to best advantage. It is important that the young shepherd be trained in the correct way to handle a sheep when determining its form, flesh, and fleece qualities. A good way is to press firmly with the finger tips except when grasping such parts as the thigh (Fig. 21).



Fig. 21.—A judging contest. Participation in judging contests develops in club members the ability to recognize the desirable characteristics of different types of sheep.

Keep the fingers close together and avoid pounding and clawing.

After handling the sheep to determine its conformation and fleshing, part the fleece on the side of the sheep at the shoulder, mid-rib, and thigh. In opening the wool, the fingers should be kept together so that the fibers will not be disarranged.

Trimming Improves Appearance

Skill in trimming a lamb for show comes only with much practice. For the small local shows it may not be necessary to do more than “square up” the lambs and trim off the taggy locks of wool with a pair of sheep shears. For larger shows, club members will need to “block out” their lambs and present them in the show ring in much the same way that the older shepherds

do. One can do good work with the following equipment: a pail of water, sheep shears, a fibre or "dandy" brush, a round curry comb and a wool card (Fig. 22).

The purpose in trimming is to improve the appearance of the lamb or sheep by giving it a straight top line and a straight under-line, graceful curves, and a smooth, balanced blending of all parts. At the same time it is hoped to improve those characteristics which are sought in the particular breed represented.

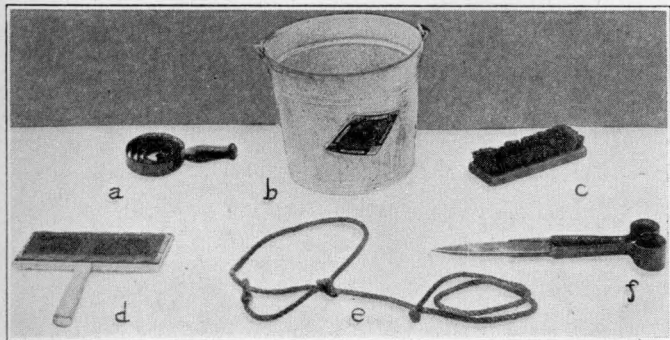


Fig. 22.—Equipment to take to the show. A SHEEP CLUB member should provide himself with these inexpensive tools and become accustomed to their uses before going to the show: (a) curry comb, (b) bucket, (c) fiber brush, (d) wool card, (e) rope halter, (f) wool shears.

If the fleece is very dirty, it will be necessary to wash it about two months before show time. This is done by using soft water, if possible, to which some sheep dip (2 tablespoonfuls to a gallon of water) has been added. For stained parts of the fleece one will need some soap also. The lamb is put into the "bath" and after it comes out it is "scraped" thoroly with a wooden or metal sweat scraper to aid in removing the water from the fleece. If the fleece is very dirty, it may be necessary to repeat the washing several times. Allow the fleece to dry as soon as possible.

Before trimming, dampen the tip of the fleece slightly and thoroly brush and comb all parts of the body. Study the individual to be trimmed and have an ideal in mind and make it

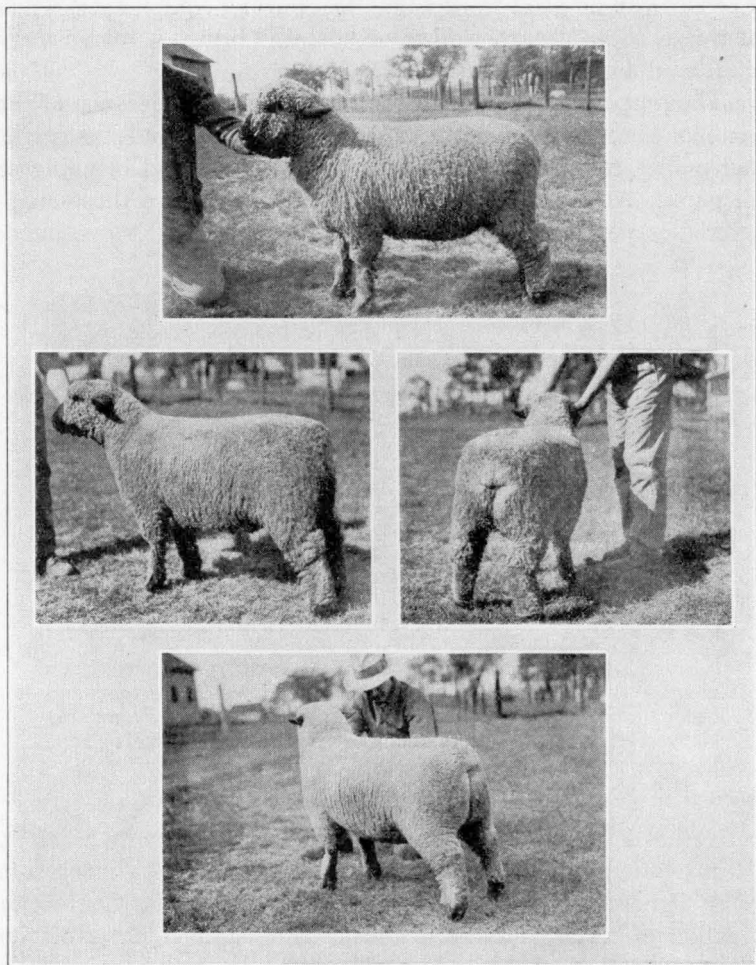


Fig. 23.—*Above*, ready to be trimmed for the show. One can see what a poor showing this untrimmed lamb would make in the ring alongside a properly trimmed lamb. Note how its appearance is improved in the following pictures. *Center left*, establishing a straight line down the back is the first step. Note how the back is cut down. *Center right*. Here the sides have been “blocked out” and the dock squared. *Below*. The finished job. This lamb is completely trimmed. The wool has been “worked up” with the brush and card, and the proper amount has been removed at all points so that the lamb shows to the best possible advantage. Note especially the hind quarters.

conform to that ideal if possible—*don't just whittle away*. The following suggestions apply to mutton-type lambs.

Have the lamb standing squarely on all four legs. Start trimming by "cutting down the back" so that it will appear straight and broad. Ordinarily the "cutting down" is begun at the top of the shoulder and finished at the rump (Fig. 23).

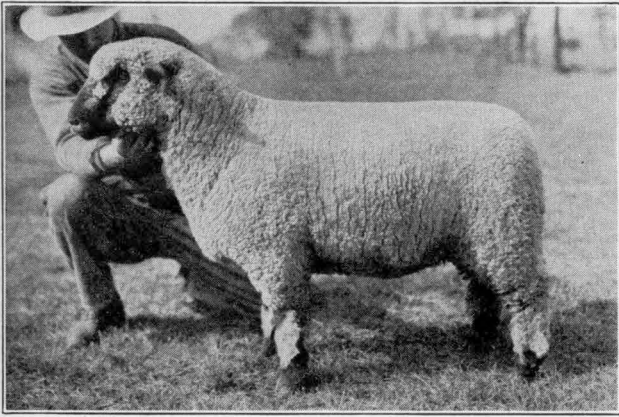


Fig. 24.—Side view of the finished trimming job. This lamb is ready for the show.

When this is completed, the wool will usually not be more than $\frac{3}{4}$ to 1 inch long over the loin. Then the sides are straightened in much the same way and the back and sides "rounded and smoothed together." The wool is not trimmed so short along the sides as it is along the back, for this makes the sheep appear broader than when the wool is cut short. The head and neck are trimmed so as to fit well with the rest of the body. The process must be repeated several times, preferably at an interval of several days or a week. Each time the fleece must be slightly dampened and thoroly brushed and carded before trimming. Finally, the back of the card may be used to "pack" the fleece and give it a smooth dense surface, as shown in Fig. 24. Blanketing helps to "condition" the fleece and to keep it clean.

No attempt is made here to give detailed procedure in trimming lambs for the show. This can be learned most easily by working with someone who is skilled in the art. While the lambs are being trimmed is a good time to teach them to stand properly for later handling by the judges.

Obviously every member cannot win the first prize in a given show, but all members who enter their lambs with the proper attitude of mind will learn many valuable lessons from the experience.

Publications Recommended for Further Study

Farmers' Bulletins:

- 576 F. Breeds of sheep for the farm.
- 798 F. Sheep tick and its eradication by dipping.
- 810 F. Equipment for farm sheep raising.
- 840 F. Farm sheep raising for beginners.
- 1134 F. Castrating and docking lambs.
- 1155 F. Diseases of sheep, infectious and noninfectious.
- 1167 F. Essentials of animal breeding.
- 1181 F. Sheep on temporary pastures.
- 1199 F. Judging sheep.
- 1330 F. Parasites and parasitic diseases of sheep.

Yearbook Separates:

- 894 Y. The sheep industry.

Department Bulletins:

- 905 D. Principles of livestock breeding.

Books:

- Productive Sheep Husbandry. Coffey. A thoro discussion of all phases of sheep husbandry. 479 pp., illus., 1929. Lippincott, \$3.00.
- Sheep Management. Kleinheinz. A useful handbook, full of suggestions for ordinary flock management. 4th ed., 306 pp., illus., 1918. Kleinheinz, \$1.75.

NOTE:

Farmers' Bulletins, Yearbook Separates, and Department Bulletins are secured by writing the Office of Information, Department of Agriculture, Washington, D. C.

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