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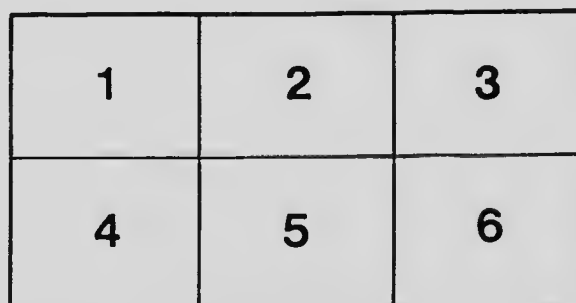
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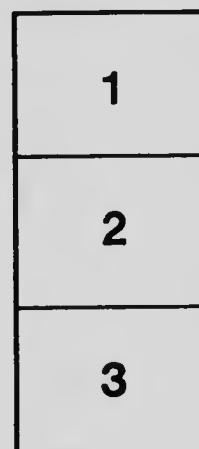
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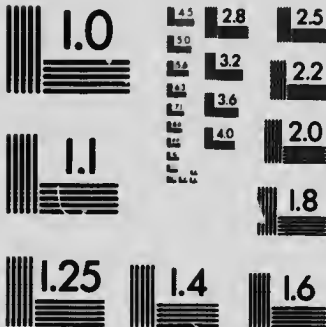
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H. S. ARKELL,
Asst. Commissioner.

SHEEP AND GOAT DIVISION.

THE MANAGEMENT OF SMALL FLOCK SERIES.

PAMPHLET No. 8.

October, 1914.

CARE OF THE RAM AND EWES DURING THE BREEDING SEASON.

BY

T. REG. ARKELL AND NORMAN STANSFIELD.

It has been wisely said that "the ram is half the flock." The truth of this statement is readily comprehended when it is remembered that the ram is the sire of all the lambs, whilst each ewe in the flock is the mother of only one or, possibly, two lambs annually. The necessity for judicious selection is, therefore, very apparent. The use of scrub rams is a practice which is happily dying out, but not before it should nor as quickly as it should. Saving a few dollars on the initial cost of a male causes wanton waste. An added outlay of ten dollars, necessary for the purchase of a first-class ram of pure breeding, represents only twenty-five cents per head on the first crop of forty lambs, and the ram may be used for more than the one season. This outlay is more than covered by the readiness wherewith the resultant lambs may be sold on the market, the quicker and better gains in weight made by them and the difference in selling price between scrub and good grade stock. From the standpoint of immediate returns alone, it is profitable to use a good ram, and it is doubly imperative in the establishment of a permanent flock, if a high standard of quality is to be maintained.

SELECTION OF THE RAM.

Improvement is the slogan of every true breeder and is attained largely through discriminate mating. The difficulty of selecting a ram can be appreciated by watching a breeder choose a flock-header for a valuable flock of ewes. He has to take into consideration the lack of conformity in size and type which is present to some degree in all flocks and endeavour to procure an animal which will assist in the production of uniform lambs. The ideal sheep is ever in his mind; ideal in conformation, ideal

in type and ideal in utility. Size, type, vigor, masculinity, conformation and fleece are all important factors. For a pure-bred flock, breed characteristics are of great consequence and a thorough knowledge of the breed type is necessary in making such a choice. A grade flock demands attention to utility factors in preference to mere fancy features, as, for example, extraordinary wooling on the head and face, lack of perfection of which, with some breeds, is sufficient to destroy chances of winning with close competition in the show rings. The ram should possess such characters of utility importance as well-shaped head; strong neck; wide, evenly covered but not obtrusive shoulders; full heart girth; well-sprung ribs; thick, wide loin; full leg of mutton; level back, fully and uniformly carried out to the tail-head; strong chest; straight underline; short legs; fleece dense and good in length of staple, lustre and crimp; lastly, but not least, vim and masculinity. It should be the endeavour of every breeder to essay to correct the weaknesses of the ewes by the selection of a ram which excels in these points.

TIME OF BREEDING.

Mating will depend upon the purpose for which the lambs are intended. The uses of lambs can be divided into three classes, namely, flockheaders, hothouse lambs,



Good type of ram which would be a credit at the head of any flock.

summer and fall market lambs. The last division concerns the average owner of a small flock who raises lambs for the summer or fall markets. The date of lambing must be fixed to suit the shepherd. The term of pregnancy for sheep is approximately twenty-one weeks. Unless an abundance of nutritious feed can be supplied, the lambs should come when pasture is available and when the weather is mild, so that every lamb may be assured a good start in life.

April represents the real harvest month for the flockholder. To have lambs born at this time, mating should take place during the nine weeks beginning the last week in October and terminating the third week in December. Flockheaders and show lambs must be dropped in March and sometimes as early as February or the end of January. This necessitates breeding in the months of September and October.

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The time of lambing for hothouse lambs is dependent upon the demands of a fancy market. Only those in close proximity to a large city and the possessors of good buildings can enter to this trade. The hothouse lamb may be described as the unseasonable lamb, or, more truly, the early lamb. The market for this commodity opens about the middle of December and the advent of spring lambs terminates it.

SUMMER CARE.

Rams are usually bought in the fall just prior to the breeding season. A ram, newly purchased, should be kept apart from other sheep and dipped before or immediately after arrival upon the farm. This is easily performed by mixing a few gallons of dip and thoroughly soaking the animal to the skin whilst standing. This method is inexpensive and effective.

Overgrown toes are frequently a cause of a ram's inactivity. It is imperative, therefore, that the feet should be trimmed. This is a simple operation, consisting of placing the animal on his rump with the head in front of the operator's legs, as



Scrag ram which was actually used in a flock. Contrast the type of this animal with that shown in the preceding photograph.

in shearing, and cutting the hooves with a sharp jack-knife, so that they are level and the toes are short. If this is neglected, lameness often results. Three minutes once in six weeks is sufficient to keep the feet in proper condition. Care should also be taken to prevent the eaking of manure around the vent.

Sufficient pasture, salt, water and care of feet is all the attention required during the summer. The breeding season is a great strain on a ram, and, unless he is vigorous and in good physical condition, the results will not be gratifying. A little extra grain in this connection, where necessary, is a good investment. A small

paddock or orchard may be reserved for the ram, wherein he may take sufficient exercise without any trouble on the owner's part. It is advisable not to permit him to run with the ewes and lambs. He may be placed with barren ewes or wethers which are being prepared for the block, or confined with other rams when more than one is kept.

TURNING THE RAM WITH THE EWES.

A common practice is to turn the ram with the ewes to remain with them until brought into winter quarters. However, where a valuable ram is used or where a ram has a very large ewe flock, a better method is to confine the ram with the ewes in the early morning when it is cool, allowing them to run together for a period of



Correct Position for Trimming Feet.

about two hours. The practice of "salting" the ewes in the enclosure where the ram is kept will act as an incentive for the ewes to wish to go there of their own volition and, consequently, will lessen the trouble of driving them. The ram then remains quiet for the remainder of the twenty-four hours. Thus recuperation is made possible and extra feeding can be practised, which, during the breeding season, should comprise a daily allowance of oat and bran to supplement pasture. The success of this method lies in the fact that the ram does not waste energy in useless service. He is thus able to attend to a larger number of ewes and is kept in a more vigorous and active condition throughout the entire season, which means a better lamb crop. The strength of a very valuable ram can be saved by the use of a "teaser." A "teaser" may be a wether improperly castrated or a ram with the end of the sheath enclosed by a bag, which will not permit him to effect mating.

The identity of the ewes in "heat" or oestrus is discovered by the "tenser," so that the energy of the sire is preserved solely for the act of service.

By smearing the brisket of the ram with a colouring substance, each ewe will be marked upon the rump after service. Some shepherds change the colour from week to week; others, at the end of three weeks. If the ewes are numbered, the exact date of lambing can be foretold and the "return" of a ewe is immediately noticed. Cases of repeated "returns" will generally indicate complete barrenness. The identity of the barren ewe is thus established, and she may be disposed of immediately, thereby saving the winter's keep. The marking preparation consists of ochre or umber mixed with raw linseed oil into the constituency of a paste.



One man alone can very easily trim

Nine weeks should the length of the breeding season. Most of the ewes will conceive in the first six weeks, but a few may not do so. However, since it is better to have lambs, though a little late, than none at all, it is always advisable to leave the ram with the ewes the full nine weeks. Two rams should not be permitted to run together in one flock. The ewes should be divided into sections so that the rams will not worry each other. At the end of six weeks it is a good policy to change the rams. By doing so, there may be an assurance of more ewes getting with lamb. Docking should be performed and the wool in the region of the tail should

be trimmed. A long tail or the collection of manure around the vulva may at times completely prevent service. Comparison of the two photographs shown will serve to illustrate clearly this point.

At the end of the show season rams and ewes are usually in a too highly fed condition to breed successfully. The process of "letting down" requires time and caution. Gradual reduction of the grain ration and increase of exercise and succulent feed are essential, but must be pursued carefully to avoid digestive troubles.

The method of holding ewes by hand during service is known as hand coupling. This is not practical except in the case of an exceedingly valuable ram.

SIZE OF THE EWE FLOCK.

Age of the ram and method of mating influence the number of ewes which can be successfully bred. A ram lamb cannot so well do the work of a mature individual.



Daily exercise throughout the winter is necessary. Note how the small lambs are enjoying themselves.

A lamb should not be used unless he is an early, well-developed specimen, and is healthy, thrifty and vigorous. Thirty ewes are usually sufficient for a lamb. More than this number may injure his virility and sexual strength, and weak lambs and non-pregnant ewes will be the result. A mature ram will handle fifty or even sixty when good care is taken of him, but fifty will, in most instances, insure the production of strong, active lambs. A ram may be used for service whilst he remains vigorous and shows no signs of debility. Far too many proven sires are disposed of before their period of usefulness is ended owing to the prevailing idea that a

shearling ram alone can give absolute satisfaction. The annual changing of sires increases the problem of gaining fixity of type.

WINTER CARE.

Confinement of the ram in the enclosure with the pregnant ewes is not a commendable practice. A ram is continually disturbing the ewes when they should have quietness. Moreover, he may butt the ewes, which is apt to create serious injury and is a prolific cause of abortion. It is better to place the ram in a small pen with wethers or ram lambs. The great danger which besets a ram in winter quarters is insufficient exercise. Exercise is of vast importance in the wintering of all sheep, but many farmers are especially prone to neglect the ram in this respect. When a ram is penned alone or in the company of two or three others, he is all too frequently forgotten as far as the cursory supplying of feed to him twice daily. Daily exercise is vital and can be arranged by allowing the ram to run in a large yard for a short time each day, if a pen of ample size is not available for him alone.



Culls. The presence of such ewes as shown here would retard the improvement of a flock.

The feet grow to even a greater degree in the winter than in the summer, since the bedding tends to preserve them and saves them from being worn down to such an extent. Therefore, feet-trimming cannot be neglected.

WINTER FEEDS FOR THE RAM.

ALFALFA.

No roughage can excel well-cure alfalfa hay. In those districts where alfalfa can be grown favourably, it should be made to comprise the major part of the sheep ration. There is no danger of over-feeding. Alfalfa, which is not cut early enough,

becomes woody in the stems and the leaves fall off very readily. This detracts not only from the palatability, but impairs the digestibility.

CLOVER.

Red clover has a feeding value for sheep next in importance to alfalfa. The high lime content of all leguminous fodders make them particularly valuable as bone builders. Red clover does not generally produce such heavy crops as alfalfa, but is very much relished by all kinds of sheep. Second crop clover is a delicacy and is useful in helping to restore a sick animal to appetite.

PEA STRAW.

Unfortunately, the growing of peas has, during the last fifteen years, rapidly declined. Pea straw, where available, is an excellent roughage. It is very palatable



Very Desirable Breeding Stock. Note the uniformity in type.

and, at the same time, nutritious. Dusty pea straw is not relished so greatly as that which has been harvested slightly on the green side.

TIMOTHY.

Timothy hay is not a suitable sheep feed for the following reasons: (1) Sheep cannot readily digest it, nor is it very much relished. (2) It is constipating in effect. (3) The heads break off becoming incorporated into the wool which is very objectionable.

ENSILAGE.

Succulent food must be provided at all times, in order to make the winter ration resemble that of summer as much as possible. Ensilage is distinctly a succulent feed, but must be given in small quantities. Only the best quality should be fed. Moldy ensilage will cause disarrangement of the digestive organs which may result sometimes in serious illness.

SWEDE TURNIPS OR RUTABAGAS.

Nothing can equal turnips as a succulent food. The only danger in feeding turnips is when they are frozen or commencing to decay. In this condition they cause scouring. Good, sound turnips can be fed in large quantities to rams.

MANGELS.

Mangels should be fed in very limited quantities to rams, since they are prone to produce calculi or stones in the kidneys or bladder. These may become large enough to close completely the urethral opening, which, unless relief can be quickly



Flushing Ewes on Rape.

provided, will result in the death of the ram. The ewes, having a larger urinary canal, are not so subject to this danger.

Mangels have the highest water content of all roots except fall turnips. In keeping qualities they excel turnips and may be held in a good state of preservation in storage until late spring.

SUGAR-BEETS.

Mangels and sugar-beets are very similar. What was said concerning mangels applies equally to sugar-beets. The use of sugar-beets is not very widespread; in fact, very few are grown for stock feed. They are not satisfactory as a feed for rams.

GRAINS.

Oats.

No better grain is obtainable for the winter feeding of rams. Bad results will not be the harvest of feeding oats. They form muscle and possess little tendency to create undue fattening. Light oats, however, should be avoided since they contain too large a percentage of hull to give good results.



Benefits of docking and trimming vividly illustrated.

Barley.

This is a useful grain as a winter feed for rams. It is best fed in small quantities, because it is inclined to be a "heating" food.

Whole barley is more palatable than ground barley. This is true of all grains. Sheep prefer to do their own grinding and are well equipped to do so. Therefore, it is usually a waste of time and labour to grind grain for sheep, except, perhaps, in the instance of corn.

Corn

This grain is a distinctly fattening food and should be fed to a breeding ram only in small amounts.

Bran.

Constipation is prevented by the use of bran in a ration. It is a muscle former and produces growth rather than fat. Bran is a bulky feed, and, therefore, valuable for maintenance purposes. Its use with any grain is to be highly recommended.

Canadian Peas.

Peas have decided fattening properties. Therefore, their use is not advisable in large quantities to a breeding ram.



Range Ewes in winter quarters in Central Alberta. Exercise in this instance is considered before warmth.

Oilcake or Cake Meal.

Oilcake serves a most excellent purpose in developing thrift and bringing the sheep into perfect "bloom." It is slightly laxative and also acts as an aid to digestion. Animals in low condition are greatly benefited by small daily feeds. Breeding animals, however, may have their procreative power diminished to some extent by liberal feeding on oilcake. Therefore, it must be given with some degree of caution.

FEEDING.

Plenty of fresh, pure water should be placed before the ram all the time and changed at least once daily. Sheep require little water but it must be fresh at all times. If dirty water or dirty drinking vessels are used they will refrain from drinking almost completely which may injure the health of the animals. A constant supply of salt should also be accessible.

Where large quantities of a good quality alfalfa or clover hay, together with plenty of roots, are available, there is little necessity for extensive grain feeding. Constant attention must be paid to the ram's health, so as to be in a position to regulate or alter the ration in accordance with his physical condition. A good mixture comprises, by weight, oats and bran, 2 to 1, or oats 3, peas 1, bran 1. Economical feeding means good profits; wasteful or insufficient feeding means dissatisfying results.

CARE OF THE EWE DURING THE BREEDING SEASON.

WEANING.

Breeding season may be said to extend from the time of weaning to the act of parturition. The lamb crop depends, to a considerable extent, on the condition of



Ear-marking Lambs.

the ewes at mating. Weaning should be gauged so that the ewes will be in the best condition for mating. The time of weaning is governed by the ultimate use of the lamb. Lambs are usually weaned when about four months old. However, the oldest ones will probably exceed this age, whilst the younger ones may be very little more than three months. This is caused by the lack of uniformity in dates of lambing. The lambs should be separated from the ewes and the ewes placed on a dry, light pasture. This treatment will very quickly cause a check in the flow of the milk. It is best to "dry off" the ewes as rapidly as possible. Heavy milkers will continue to form milk, so it is advisable to go over the flock, milking out the ewes wherever necessary. The udder should not be completely drained. This operation should be

performed generally about twice the first week and three times during the following two weeks. Of course, in some cases it is not needed at all, but many may require even more attention. Udder trouble may be prevalent at this time, if the ewes are neglected. The heaviest milkers are the best mothers and those most prone to this evil.

CULLING.

At weaning time the ewes which no longer serve a useful purpose in the flock should be discarded. The culls should be separated from the others, fattened and disposed of to the shambles. Old broken-mouthed ewes are not profitable, except in very rare cases. They are unable to eat well and, therefore, cannot provide ample nourishment to raise profitable lambs. Ewes having lost one teat or those which are unable to raise lambs successfully owing to udder troubles, should be prepared for the butcher. Any female which is not up to the standard of the entire flock in conformation and general type should not be retained.

BREEDING CONDITIONS.

After raising a crop of lambs, the ewes are frequently left in a thin condition. The best time for mating is when the ewes are gaining in flesh, thrifty, but not too fat. Fatness may cause failure to come in "heat" and, when ewes are overburdened with flesh, conception is more difficult. On the other hand, however, excessive thinness causes weak lambs. A happy medium should be maintained. Exceeding fatness must be guarded against, but thinness and weakness are equally dangerous.

FLUSHING.

As soon as the ewes are completely "dried off" they should be placed upon good pasture. This is known as flushing and causes the ewes to commence making rapid gains. This practice is advantageous, since it allows the ewe to recuperate after the drain of nursing a lamb, and may help in creating more and stronger lambs next year. It also induces oestrus more readily, which shortens the lambing season. Pasture is insufficient in itself for flushing and should be supplemented by some extra feed. The cheapest, and at the same time the most satisfactory supplement, is rape. Rape grows quickly, and it may be sown at almost any time to suit the requirements of the shepherd. Bloating is one danger which must be guarded against in feeding. However, bloating may be prevented by allowing the ewes to become gradually accustomed to it, and by not permitting them upon it when the dew is heavy.

EAR MARKING.

Many advantages are to be derived from the practice of ear marking. Exact records of each ewe can be kept and her performance as a mother is known as well as her fecundity. The offspring can always be recognized and pedigrees may be recorded. Breed societies demand ear marking, in order to facilitate identification where records are maintained. The date of lambing of the individual can also be

foretold by this means. Lambs occasionally have to be taken from the ewes, in order that the dam's life may be saved and, where no dates are registered, assistance may not be given to her at the opportune moment. This applies to small flocks particularly.

There are three methods of ear marking: (1) Punching holes on the edge of the ear; (2) Metal ear tags; (3) Tattooing. The simplicity of the first system appeals to many. A punch which makes holes about one-quarter of an inch in diameter is used. The ear is held so that just half a circle is cut away. It is best to do this punching of ears whilst the lambs are very small, since the dam being definitely known at that time, there is less liability of inaccurate recording. A regular system must be followed in making the holes. The following method has given satisfaction. Mark the units, 1 to 9, on the left ear and the tens, from 10 to 90, on the right ear. One hundred may be designated by a hole in the centre of the left ear, and two hundred, by a similar hole in the right ear. Begin on the under side of the ear next to the head, working to the tip and back to the head along the upper side. The punch at the top of the left ear will be 5, while the tip of the right ear will be 50. When the number is more than 5 or 50, no marks are required on the under side.

Metal ear labels form the commonest method. The advantages gained from their use comprise ease of operation, minimum disfigurement and ease of reading. There are some disadvantages, as the cost of private ear tags and the possibility of losing them. The tag is apt to be caught in fences and torn out, if not properly inserted. The National Live Stock Records' Association, however, provide the registration numbers for pure-bred animals.

Tattooing, the third method, is simple and permanent so long as the ear remains, and by many is preferred. The cost is very little. A complete set of instruments can be bought for four or five dollars.

GENERAL CARE OF THE EWES.

While the ewes are upon pasture in the fall, they require little attention. This does not mean, however, placing them in the furthest pasture field and complete forgetfulness of them. Where small flocks of ten or fifteen are kept, this is all too frequently the case. The small outlay entailed in a small flock does not seem in the eyes of many farmers, to make the sheep of sufficient importance to warrant attention. Neglect oftentimes causes death, and the dog is blamed for many such deaths. Unfortunately dogs do worry sheep, but the damage is at times exaggerated. Lack of attention is conducive to worrying, inasmuch as the sheep may not in many instances be seen for some weeks. The evil could, to a great extent, be remedied by strict supervision of his flock by the sheep raiser.

Ewes should be permitted to become accustomed gradually to their winter quarters. The change from grass to dry feed should never be made suddenly. Winter feeding should be pursued so that conditions resemble pasturage as much as possible. This can only be accomplished by the plentiful use of succulent feeds, such as turnips, mangels and ensilage. Roughages may comprise alfalfa or clover hay and pea straw. Food of poor quality is not a saving, but rather a loss, often causing even serious illness. A small quantity of grain should be fed daily, but not sufficient to create fattening. An adequate supply of salt and pure water must be

ever available. Pregnant ewes must have daily exercise, if strong, healthy lambs are to be expected. Dryness underfoot and dryness of fleece are really more important than warmth.

AN OLD SHEPHERD'S "DONT'S."

- (1) Don't use a "scrub" ram.
- (2) Don't forget to trim the ram's feet once in six or eight weeks and the ewes' feet at least three times a year. The wool on the ewes' rump requires trimming also.
- (3) Don't overwork any ram, particularly a ram lamb. Confine the size of the flock in accordance with the age and vigour of the ram. A mature ram should be restricted to 50 ewes; a ram lamb, 30.
- (4) Don't allow the ram to remain with the pregnant ewes during the winter.
- (5) Don't overfeed or underfeed at any time. In order to gain the highest profits, thrift must be maintained in the flock.
- (6) Don't feed, except very sparingly, mangels or sugar-beets to rams. Calculi or stones may be formed in the urinary organs which may become, at times, large enough to block completely the urethral canal and cause the bladder to burst with consequent death.
- (7) Don't forget to cull the ewe flock before each mating season. A few good ewes well-mated are more satisfactory and profitable than a large number of indifferent ones. "Every ewe has her day."
- (8) Don't forget to sow your rape patch for flushing the ewes. The ewes require and deserve a vacation after raising lambs. It pays for itself in the next lamb crop.
- (9) Don't think you can remember each ewe's record. Have ear marks and be certain.
- (10) Don't expect to fix a type by constantly changing the ram. Decide on the type which is best suited to your purpose and sustain it through thick and thin.
- (11) Don't forget to dip all sheep at least once a year. Newly purchased animals may be the carriers of disease. Dissemination can be prevented by quarantine and dipping.

GESTATION TABLE FOR SHEEP AND GOATS.

Time of Service.		Time of Parturition.		Time of Service.		Time of Parturition.	
Jan.	1	May	30.	June	9	Dec.	5.
"	8	June	6.	"	16.	"	12.
"	15	"	13.	"	23	"	19.
"	22	"	20.	"	30	"	26.
"	29	"	27.	Aug.	6.	Jan.	2.
Feb.	5	July	4.	"	13	"	9.
"	21	"	11.	"	20	"	16.
"	19	"	18.	"	27	"	23.
"	26	"	25.	Sept.	3	"	30.
Mar.	5	Aug.	1.	"	10.	Feb.	6.
"	12	"	8.	"	17.	"	13.
"	19	"	15.	"	21	"	20.
"	26	"	22.	Oct.	1	"	27.
April	2	"	29.	"	8.	Mar.	6.
"	9	Sept.	5.	"	15	"	13.
"	16	"	12.	"	22	"	20.
"	23	"	19.	"	29	"	27.
"	30	"	26.	Nov.	5	April	3.
May	7	Oct.	3.	"	12	"	10.
"	14	"	10.	"	19	"	17.
"	21	"	17.	"	26	"	24.
"	28	"	24.	Dec.	3	May	1.
June	4.	Nov.	31.	"	10	"	8.
"	11.	"	7.	"	17	"	15.
"	18	"	14.	"	24	"	22.
"	25.	"	21.	"	31	"	29.
July	2	"	28.				

