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PURE BRED FLOCKS.

THEIR FORMATION AND MANAGEMENT.

MANSELL.

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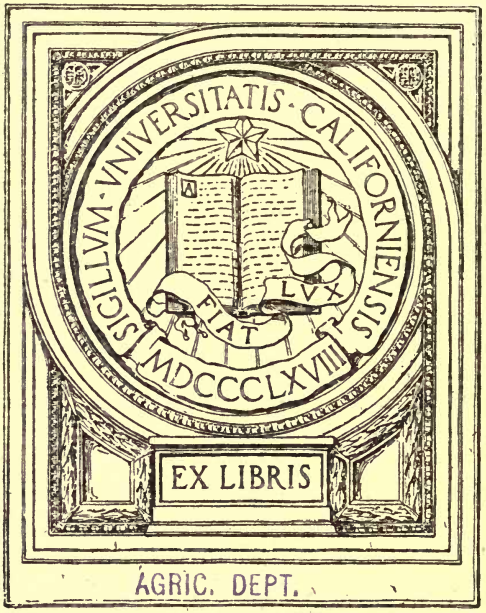
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THE

FORMATION

OF

PURE-BRED FLOCKS

AND

THEIR SUBSEQUENT MANAGEMENT.

(*2nd IMPROVED EDITION.*)

BY

ALFRED MANSELL.

BERKHAMSTED:
WILLIAM COOPER AND NEPHEWS,
1901.

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PREFACE.

THE flattering reception which was so generously accorded to the First Edition of this little Brochure, (some 20,000 copies of which have gone into circulation,) has encouraged me, not only to venture upon a re-issue, but to round up my subject, so to speak, by the addition of various other points essential to the successful formation and maintenance of a stud flock.

During the past few years the subject has assumed a greatly added importance to the British Flockmaster.

Old markets have expanded in their demands for our stud sheep; new markets have arisen on every hand, and will continue to do so for many years to come; and it is now an universal axiom, that wherever British Sheep are kept, whether for crossing or otherwise—and this practically covers the sheep-farming world,—the old Country must be periodically resorted to if the character and type of their sheep is to be maintained.

What this means to our Flockmasters at home can be gathered from the following figures, which, I unhesitatingly say, will show considerable expansion in the near future:—

The Total No. Exported in		Valued at £	Average Value. £ s. d.
1894	was 4,638	39,522	8 10 5
1895	„ 6,266	59,670	8 11 6
1896	„ 9,512	107,507	11 6 0
1897	„ 11,569	141,712	12 4 11

The attention we give to the maintenance and purity of our flocks will, to a great extent, be the measure of our development in this profitable industry.

Good management practically assures remunerative results; and, in this direction, too much attention cannot be given, even to the smallest details, as success or failure largely depend upon an intelligent use of the means at our disposal.

That the sheep has a golden hoof is a truism, and the Author hopes that a perusal of the following pages will contribute in some small degree towards the practical realization of this important fact.

ALFRED MANSELL.

Shrewsbury.
January, 1902.

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PURE-BRED SHEEP.

Formation of Flock and Subsequent Successful Management.

MAIN FACTORS.

A BREEDER to be successful must be an enthusiast, and take special means to obtain the best information as to the attributes and characteristics of the breed adopted.

THE MOST SUITABLE BREED.

The first consideration is, which breed is the best adapted to the locality and the particular farm where the flock is to be kept, and in arriving at a decision many important points must be looked at, such as the nature of the soil, the quality of the pastures, the climate and altitude, and the breed of sheep most likely to find customers in the district.

For example, on rich lowing land it would be wise to select a breed not too much given to lameness, (foot-rot,) whereas on a high banky, poor farm it would be unwise to introduce a large class of sheep, but on the contrary the smaller breeds, or those descended from mountain breeds would be most suitable.

Sometimes it will be found a wise course to be the only breeder of a particular breed of sheep in a neighbourhood, and thus escape the severe competition experienced for that particular breed in its great stronghold. This later consideration is worth more attention than is usually given to it, as a comparatively unknown breeder in a locality where his particular breed is not the breed of the district can generally sell a considerable number of rams at good prices for crossing purposes, whilst a market for

the very best can always be found amongst the flockmasters who keep that particular breed.

There is, undoubtedly, great scope for good judgment in selecting the breed or description which will give the best return, taking into consideration the soil and situation where they are to be kept.

FOUNDATION OF FLOCK.

Even after having definitely decided which breed to take in hand, it is not wise to be in a hurry. An opportunity should be taken of seeing all the best flocks of the particular breed at home, and we feel sure all breeders are not only willing, but glad to see anyone on such an errand, and would give him every opportunity of seeing their flocks and accord him a hearty welcome.

Seeing a flock at home is much more satisfactory, as one then sees whether general merit is present or absent. Buying ewes specially prepared and well trimmed at a market or auction is apt to deceive the eye of even the expert in such matters, and most inexperienced young men are apt to select what fills the eye at the moment. Again, some breeders are so anxious to make top price at any particular Auction or Fair, that for years they have been selling their best young ewes, with the natural consequences that their flocks have greatly gone back. Is this the class of flock to buy from when making a start? We unhesitatingly say no, and we would rather buy culls from a flock carefully bred for a long series of years than the best from one who sacrificed his best ewes annually on the alter of vanity.

If any difficulty be experienced in getting the names and addresses of the best breeders we would advise a perusal of the awards at the R.A.S.E. for the last 10 years, and a careful study of the existing flock books of the respective breeds, from which an intelligent reader will be able to gather which flocks are principally resorted to for sires, thus stamping them as flocks of high repute. As sometimes it happens that some of the best flocks are never exhibited, it is politic to take other means besides those alluded

to, to secure the names of these breeders, which no doubt the secretaries of the various societies would readily furnish.

Armed with the names and addresses required, we would recommend a careful look through each flock ; and if not qualified to form an opinion as to their respective merits, the services of an expert whose judgment and integrity may be relied upon, should be secured. Having thus decided which flocks on the whole exhibit the best characteristics of the breed, and are undoubtedly old established and well-bred, we would suggest the following course as the one most likely to prove successful.

Instead of buying 5, 10, 15, 20, 30, or 50 ewes from several breeders, and so getting together a homogeneous lot with different character, type, and breeding, we strongly advise selecting the whole from one, two, or three breeders at the most, or where the flock is limited to 80 or 100, two breeders ought to supply the lot ; but of course in cases where big flocks are established more breeders must be resorted to. It will, however, be sound policy to begin with a small flock of undeniable breeding and merit, rather than with a larger one of inferior animals.

The great object should be to procure an uniform, even-matching lot of ewes and by the constant use of sires calculated to rectify and improve the imperfection of the ewes, a high standard of excellence will result.

By founding a flock with judicious selections from the best breeders the greatest point is achieved, viz., a sure and certain basis upon which to build up a flock of the highest class. Many breeders have never been able to eliminate the results of a bad start with the ewe foundation, despite the fact that they have used high-class rams for many years. The bad points that existed in the ewes have appeared again and again ; one generation will be free from them, and still they may reappear with vexatious persistence the next. Too much importance cannot be attached to making a correct start.

Probably the reader may say "sound advice," but how is it to be done? Will breeders sell selected sheep at a reasonable price by private treaty, or is it necessary to attend their annual sales?

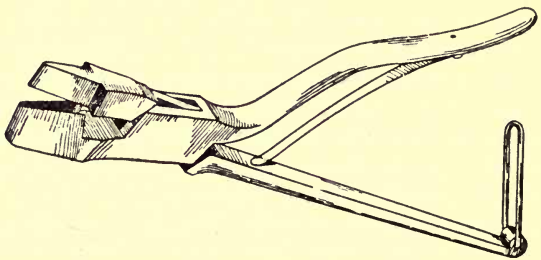
Some breeders prefer to sell by private treaty, whilst others prefer to have annual sales. Whether the foundation sheep are bought by private treaty or at the public sales, the right sort must be selected, even if an apparently high price has to be paid. We say "apparently," because the best specimens of a breed rarely prove to be dear in the long run, whilst second-rate ewes are not cheap at any price, and are a constant source of disappointment and loss. High individual merit, soundness of constitution, and a thrifty condition in the sheep purchased are points of great importance. Where the pluck and means to buy the best are absent, the idea of establishing a flock of pure-bred sheep should not be entertained, as disappointment would assuredly result.

EAR MARKING.

Every ewe in the flock should have a destinctive number from 1 up to 100, 200 or 500, as the case might be, and her pedigree should be clearly written in a Private Flock Book, in which her subsequent mating and breeding can be entered.

The following extract from the Preface to the Private Flock Book issued by Messrs. Alfred Mansell & Co., (Post free 13s.,) a book on which much thought has been given and which is strongly recommended to all flock owners, describes the various methods of ear marking in vogue:—

"The system of 'notching' the ears is a very old and universal "one. Small notches are cut out of the ear by means of a fine "pointed nipper, of which the following is an engraving:—



"The place of each notch has a peculiar number. An illustration "is given of a very good system of notching the ears, which "practically explains itself. When the figures required are above "5 or 50, two cuts are made, *e.g.*, for 79 cut 50 and 20 on the off "ear, and 5 and 4 on the near ear.

A hole in centre of both ears denotes 300.

"One disadvantage of notching is that every breeder does not "use the same system. One breeder may have a system by "which he makes, say, nine cuts in each ear, and another may not "adopt the same numerical order as described above. This "method gives an absolutely permanent mark, but this is rather "inconvenient when you buy sheep from another breeder which "have been already 'notched,' or when the annual selection of "yearling ewes is added to the flock.

"A newer system, and one which is growing steadily in favour, "both in this Country and elsewhere, is the 'Ear Tag' system. "The ear tag is simply a narrow strip or ribbon of metal, silver 'coated, which bears a distinctive number, and may also have the "initials or name of the breeder. A hole (similar to the ones used "for 100 or 200 in the notching system) is punched in the lower "portion of the ear near the head, the ear tag inserted, and the "ends closed together. Until recently this method had two "drawbacks, one of which was that the ends of the tag chafed the "ear of the sheep, and caused festering, and the other was that "unless the ends of the ear tags were closed exactly even they "were liable to drop out. This, however, is now remedied, as my "firm, (Alfred Mansell & Co.) have recently put on the market "what is termed the 'Lock' Ear Tag, an illustration of which is "now given.

"The 'Lock' joins the ends together, and thus removes the "cause of festering, and also makes it impossible for the tag to "drop out. This tag is being sold at the same price as the "ordinary ear tags were, and therefore, should be a boon to "breeders of pedigree live stock. Instructions for fixing are "supplied with the Lock Ear Tags. Attention is called to the "following extract respecting the Lock Ear Tags, which appeared "in *The Field*, dated 25th November, 1899:—

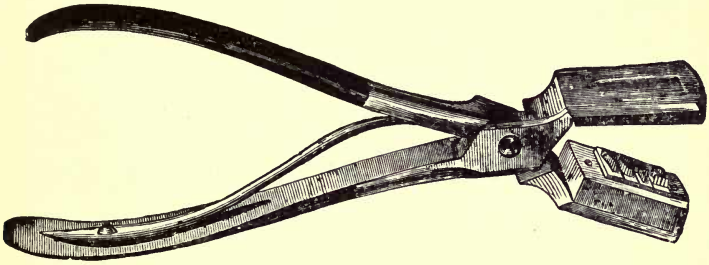
"EAR TAGS FOR LIVE STOCK.

"A simple and serviceable Ear Tag for the marking of sheep, cattle, and pigs, "has been designed and patented by Messrs. ALFRED MANSELL & Co., of "Shrewsbury. This new form of ear tag differs mainly from others on the "market in that the ends of the band that pierces the ear are locked together, "making a complete ring, and thereby reducing the risk, common in older "patterns, of losing the tag and of causing festering. From the sample that has "reached us we can believe that the new tag is likely to meet with the approval of "Breeders."

"Both of the systems explained above have numerous advocates, "but mention may be made as to one or two points in which we "think the ear tag shows its superiority. In the first place, as "mentioned before, it is possible, and indeed the custom, to have "the breeders' name or initial stamped on the ear tag, and thus "in the event of a sheep straying the tag provides an easy and "certain means of identification. Of course in notching this "cannot be done. Another, and perhaps the greatest reason, "why the ear tag is making such rapid strides is its *simplicity*. "In notching, if you have a large number of sheep to mark, and "only a short time at your disposal, you are apt to hurry over "your work and be careless, and sometimes it is impossible to tell "which place you intended to notch as you have cut exactly "between the two positions. Nothing could be simpler than the "ear tag, for, as before stated, the number is distinctly and "clearly stamped in the metal. As its name implies, the 'Lock' "Ear Tag, when properly fixed, forms a complete ring, which it is

practically impossible to unfasten and remove without resorting "to considerable force."

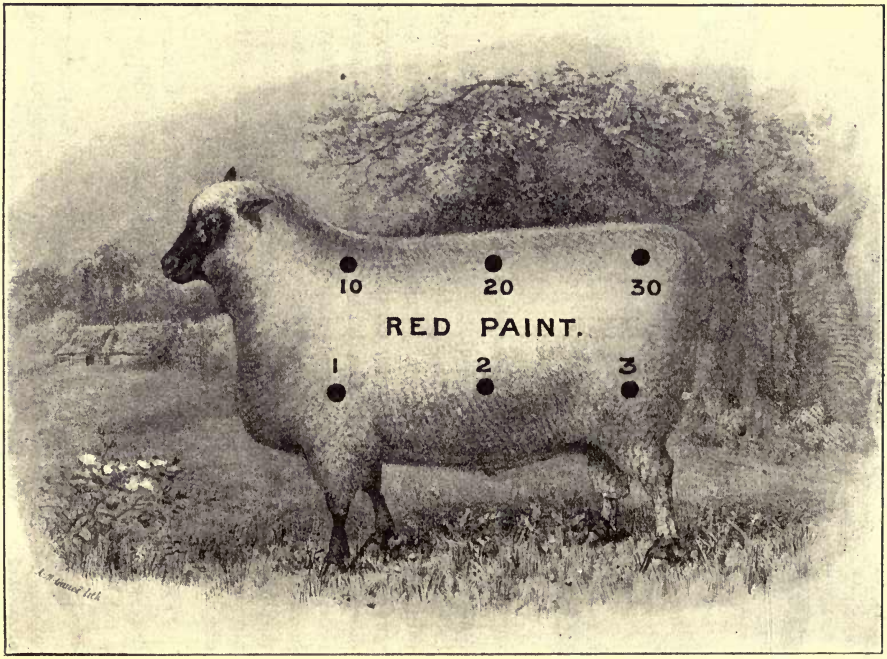
Another method which is used, but still not so much as the notch or ear tag, is that of "tattooing." (*see Illustration.*)



The required number is tattooed in Indian ink or other preparation in the ear of the sheep by means of a special instrument called the "Tattooer." Tattooing, if done with care, answers well with some breeds but not all. A clean inside white to the ear seems indispensable, as if the ear is black the readings are very difficult to decipher. Specially well-prepared Indian Ink is necessary, and if plenty of ink is used and the figures well driven home on such an ear as previously described a satisfactory numbering is obtained. It would also be wise to make mistakes absolutely impossible by duplicating the numbers by means of the notching system above described.

The methods here described are all for permanent marking; those for temporary marking being chiefly paints of different colours and in various positions.

The following illustrations supply an excellent plan for numbering the ewes with dots of different coloured paints to indicate numbers. If this plan is adopted the shepherd can dot the lambs to correspond with the ewes, and every week or fortnight they can be properly ear-marked according to the breeders usual custom of marking.



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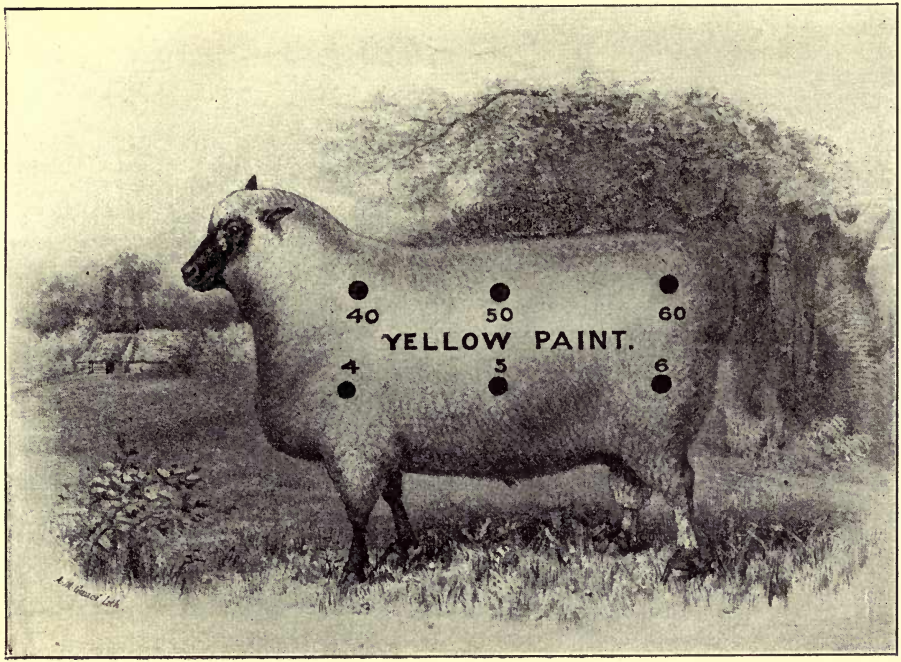

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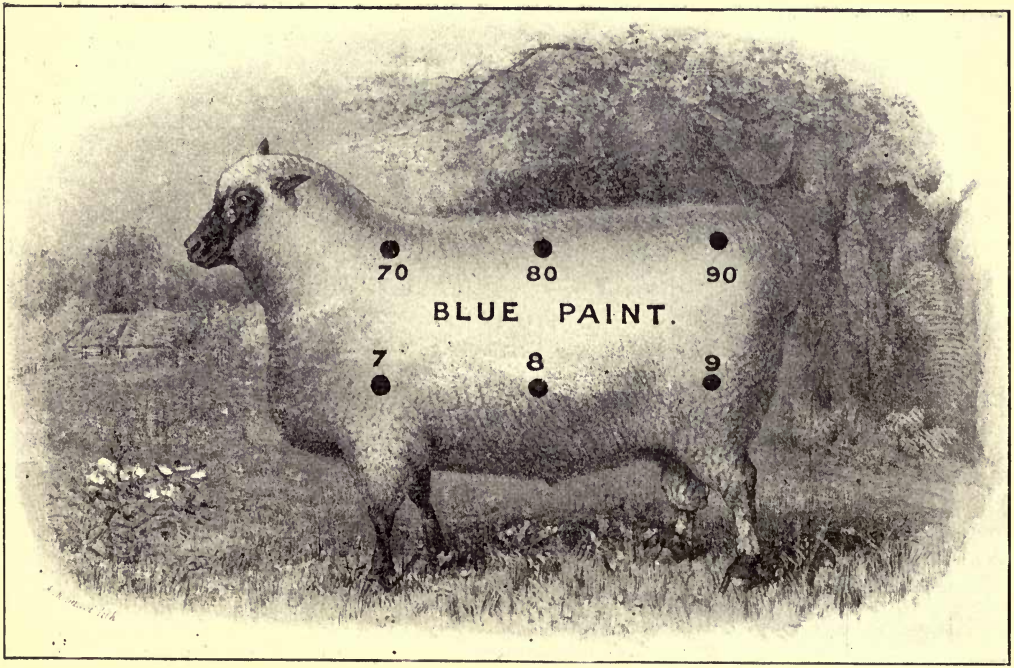

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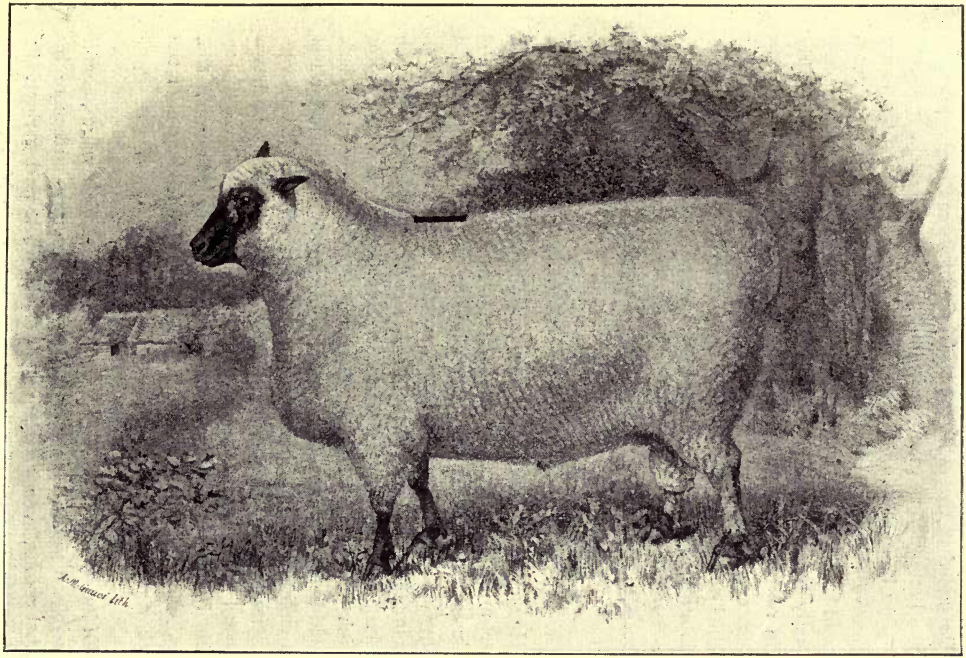


STRAIGHT MARK ON TOP OF BACK. (*See Page* 11.)

RED INDICATES ... ... 100.
YELLOW „ ... ... 200.

SUBSEQUENT MANAGEMENT.

Possessed of the ewes, what is the best course to pursue? Should attention be given to improving the ewe flock, or should an effort be made to acquire a reputation as a ram breeder by extensive showing? We unhesitatingly say the first few years should be devoted to improving the ewes, an object which, though equally important, is more easily achieved and far less costly than ram breeding, inasmuch as sires suitable for getting good ewes never command such high figures as those likely to beget high-class rams. Again, once possessed of a good ewe flock exhibiting uniformity of character and type, the greatest difficulty has been overcome, and, by judicious mating, a long and successful show and sale yard career may be counted upon.

SHEPHERD.

He ought to be a careful, patient, kind, and cautious man. His care must be unceasing, his watchfulness incessant, and his industry in providing every requisite of food, shelter, and individual conveniences in each case must be unlimited. In fact, the importance of a good shepherd cannot be over-rated; not one of those men who can only trim and get sheep up for show, for which he receives wages which many a highly educated clerk would be glad to get; but a sensible steady man who is fond of his calling and puts his whole energies into his work, one who understands the treatment and feeding of sheep, and who has a general knowledge of their common ailments, and believes that in such matters as Foot-rot, Husk or Hoose, Maggots, &c., prevention is better than cure. Regularity of feeding is of the highest importance in the well-being of the flock.

Of late years shepherds have commanded high wages, but if possible, it would be better to pay less in wages and more by actual results, even if the payment on the whole were greater. It practically gives the shepherd a direct interest in his calling, and is really a system of co-operation.

The payments by result might include :—

(1.) A bounty on each lamb at weaning time.

(2.) A bonus if he does not lose more than 2 or 3 per cent. of ewes in lambing, or 4 per cent. in the year.

(3.) A percentage on the amount realised in sales during each year.

SELECTION OF SIRES.

Having obtained the ewes on the lines laid down, it would be well to look carefully through the whole flock and endeavour to find out the weak points, as undoubtedly they will be present, however careful the selection has been. In choosing a ram, care should be taken to secure one that is strong in the points where the ewes are weak, but the breeder must not overlook the fact that it is absolutely imperative to secure an animal with a vigorous robust constitution, good chest development, well sprung ribs, wide loin, straight spine, good underline, strong bone with legs well placed at each corner, or as near to this ideal as possible. In no case let fashion lead the breeder to forget that the ultimate object in breeding sheep is to produce mutton and wool at a minimum of cost that will sell readily at top prices. Experience has proved that where this course is followed, the weak points of the dams are usually much less marked in their offspring, and, if it is persevered in, are in time often entirely got rid of. As the object is first to get a thoroughly good ewe flock the sires should be chosen with that view, and therefore a very masculine ram is not so necessary, if possessing good character and type, with plenty of size and length, but of course it is absolutely essential that the ram should possess all the true characteristics of its breed and be practically unassailable, except perhaps for a slight inclination to feminine character about its head. By the use of this type of ram for a few years a first-class flock of ewes should be the outcome, and then none but the highest-class rams possessing strong masculine character should be used. It is not so necessary to obtain size in the sire, provided the animal is masculine, and big, so to speak, in his points. Many really small rams have proved themselves remarkable getters both as to

quality and size, and it would be an easy matter to trace several Royal Winners which have been sired by, comparatively speaking, small rams. Some breeders recommend that one ram should be selected annually with the object of begetting ewes to keep up the flock, and this suggestion is certainly deserving of serious consideration. At any rate it is of primary importance that the ewes should be kept up to a high standard, and this is one way of doing so. As before stated, the size should, if possible, be secured in the ewe flock, and the stamp or impress through the sire.

In breeds where bright cherry skins are valued, this fact must not be forgotten in the selection of the sires; and, at the present time, when such great things are expected from Foreign Buyers, it is important to give special attention to the wool, and endeavour to breed, so as to obtain, in the whole flock, an even and uniform class of wool, of extra quality. If a Foreigner visits a farm to select 20, 30, or 50 rams, as the case may be, he will insist on taking sheep with fleeces of uniform fineness and staple, and, even for the home market, uniformity in the wool products must be to the advantage of the breeder.

Rams from old-established flocks are recommended, as they are undoubtedly the most reliable and the most impressive. This is accounted for, no doubt, by the greater strength of blood, inherited by a long course of careful, and probably, close breeding.

When ram lambs are used it is even more desirable to resort to breeders of renown, as lambs from newly formed flocks usually show to better advantage in the early stages of their life than from old established ones. This is explained, probably, by the fact that they possess better digestions, and therefore develop earlier, not having been so closely bred as the older flocks. For the foregoing reasons, and the fact that, to place young animals in the order of merit requires great judgment and forethought, the use of ram lambs cannot in most breeds be too strongly condemned, although in others, notably the Hampshire,

the system of using ram lambs appears to answer. In many breeds the adoption of this practice would result in a rapid deterioration of the flock.

LINE TO ADOPT IN THE IMPORTATION OF SIRES.

During the first few years after the foundation of a flock, the selection of sires is not so difficult, provided judgment is used, and adequate means are available; but afterwards it becomes a matter of great importance. In the course of time, fresh blood is wanted. What is to be done? Shall a direct cross, so far as blood is concerned, be looked for; or shall line breeding, with a slight outcross, be decided upon? The writer, from such experience as he has had, inclines to the latter opinion, but the true breeder will probably not adhere to any one method too strictly, but be guided by circumstances, but at the same time it is much more easy to decide as to what steps to take, than to find the animal suited to our requirements.

Here the difficulty lies; but on it so much depends, that the enthusiast in the art of breeding, should try his utmost to secure the animal best suited to his flock, and sooner or later, success will follow his efforts.

Lastly—do not be in a hurry to dispose of the rams in service until they have been really proved, as sometimes lambs with little promise develop into grand sheep, and perhaps in the meantime their sire has been passed on, or handed over to the butcher. Success in breeding is so largely dependent on the sire, that extraordinary means should be taken to secure the best, and when once this has been obtained and proved, it should be made extensive use of.

CHARACTERISTICS OF A GOOD RAM.

We quote from an article by PROFESSOR CURTISS, Iowa, on "Raising Sheep for Mutton," the following pointed observations on what constitutes a good mutton sheep:—"First let there be pronounced masculinity in the male and femininity in the female.

Sheep should be neither sexless nor characterless. They should bear the stamp and character of the breed they represent. This breed character is a mark of good blood, and it should be manifest in no unmistakable manner. The sire should be impressive, resolute, and of noble bearing. He should be distinctly the head of the flock in every sense of the word. To meet these requirements he must have good constitutional and vital powers. Without these no animal is fit to head a herd or flock. In selecting a sire look first at the head. If deficient there look no further, but reject at once. Insist on a head that faces you boldly, with a wide face, a clear, prominent eye, and a robust character throughout. The head should be joined to a well-filled, round, muscular neck, wide at the poll and back of the ears, and gradually enlarging in all lines to a strong full junction at the shoulders, as seen from tip, sides, or bottom. This should be accompanied by a wide chest, a prominent, well-filled brisket, and a full heart girth, giving straight, even lines from the shoulders back. A depression either in front of or behind the shoulder, whether at the top, side, or bottom line, is an indication of weakness. The back should be strong, wide, and well-meated from shoulder point to tail. The hindquarters should be full and well let down in leg and flank. The legs should be placed wide apart and stand straight. Sickle-shaped hocks and weak, sloping pasterns afford sufficient reason for condemning an otherwise good sheep."

MANAGEMENT OF FLOCK.

The following extract from a paper read by Mr. Andrew E. Mansell, before The London Farmer's Club, on April 29th, 1901, is well worth reproducing, and puts in a nutshell much of the advice embraced in this Pamphlet:—

MANAGEMENT.

"I could say a great deal upon this subject, but if I could say all I knew, it would be very little compared with what I have to learn. It is well to remember that the very best animals can easily be spoilt if badly managed. I would like to say, however, to all arable farmers, give this branch of your business all the care and thought you can, for sheep are the best crop you can produce, and by proper management, sheep are the best means of growing all farm crops, and on some land the only way of securing crops. I would also add, give them plenty of attention, put on an extra hand if required, and you will be repaid the expense over and over again. Don't neglect them at harvest, or at any other time, and be most careful to avoid foot-rot. If well attended to, and properly managed, you can largely increase the number of your sheep, only remembering, that sheep, but especially lambs, won't thrive on stale pastures, the more change they have the better. If you wish to keep them thickly on the ground, and have them healthy and free from injurious parasites, you must grow crops for them, and keep them as much as possible on the arable land."

DATE FOR PUTTING RAM TO EWES.

One of the chief points to be considered before putting the ewes to the ram is, when will the farm be able to keep the lambs growing and thriving, without a check? In a pedigree flock, it

is desirable to have the lambs as early in the year as possible; because, for showing purposes, an early-dropped lamb has a considerable advantage over a March or April lamb. The competition now-a-days is so keen that the breeder who shows lambs, to be successful, must have them dropped early, and then he must leave no stone unturned to fully develop them. At the same time it is of equal importance that lambs should suffer no check, but continue to thrive during their whole career, if successful results are to be obtained. If the Spring keep is likely to be short, and the farm rather cold and exposed, it might be advisable to put a limited number of the ewes to the ram early, so that lambs for showing purposes may be secured, and to put the bulk of the ewes to the ram at a somewhat later date. If this course be adopted the ewes most likely to breed well should be selected for the purpose.

MATING.

All the rams for service should be branded in pitch with a distinctive number—say 1 to 100, or any smaller or greater number according to the rams in service—and their breeding, &c., entered against that number. The ear-markings (tattoo, nip, or ear-tag) of each ewe drawn to No. 1 ram should be entered in a small memo. book; and so on until the respective numbers of each ewe are taken, with the number of the ram each is served by.

If any changes are subsequently made, a note must be taken of the same, and at the end of the season when the ewes are all served, the mating can be entered up in the private flock book.

The utmost care should be given to mating, because it is rarely, if ever, that we get perfection in any one animal, and it is only by judiciously mating a ewe which is deficient in some points, with a sire strongly developed in those particular points, that we can hope to arrive at approximate perfection; if both sire and dam are deficient in the same points, they will only be accentuated in the offspring.

If possible, in mating, profit by experience; that is to say, call to mind or actually see the result of previous mating, go daily amongst your sheep and get to know them thoroughly and individually, as you will find this will assist you greatly at the mating season. This is such a complex question that the best of judges are deceived; and some of the best stock in the Kingdom has been bred from animals that might easily have been passed over by experienced judges in the show-yard.

Again, it is often the case that an undersized ewe or other female produces large-framed stock.

When the ewes are first put to the ram, flushing, (*i.e.*, placing them on a fresh,) or folding on rape, mustard, kale, or other green bite, is considered a good practice, usually resulting in an early and prolific crop of lambs, and it is sometimes practicable and possible to select the poorest ewes and give them the first run on it.

As a rule, a lambing time confined to a few weeks is the most prolific and best in every sense, and if flushing, carried out with judgment, can attain this end it undoubtedly is a wise course to pursue.

Stubbles, provided the shed corn is not excessive, are excellent runs for ewes at this time of year, and enable the breeder to make up several sections of his flock and the flushing can be carried out, with a daily allowance of Cabbage, Kale, or White Turnips, carted on the field.

It is sometimes dangerous to give a sudden change, and so care should be exercised for the first few days, and the ewes only allowed to remain some three or four hours on the green fold. This will minimise, and eventually overcome the danger. If any of the ewes are very low in condition, they should, if possible, be treated more liberally than the rest of the flock, and even helped with a little trough food for the first week or two when the rutting season comes on. The great point for success in breeding is to

have both the ewes and rams in a healthy and thriving condition, and to get as small a percentage of barren ewes as possible. Ewes must not be too fat or too lean, but of the two extremes the latter is preferable. After the ewes have been served many experienced breeders recommend that they should *at once* be placed on the barest of pastures with a teaser, as by adopting this course they are less likely to return to the ram.

As to whether a ram should be allowed to run with the ewes or the latter should be hand-ridden, and a teaser used, one must be guided by circumstances. If the ram has been prepared for show, is excessively fat or inactive, or a valuable one, a teaser would undoubtedly be desirable, as the ram with this help would serve many more ewes, and probably much more effectually, than if allowed to do all the work in the field. In reference to the teaser—a good-looking one should always be used, as several authentic cases can be quoted, where bad results have followed the use of an ugly ram for this purpose.

In working a teaser, instead of a bag tied so as to cover the penis and extended along the belly, it is far better to tie the bag in such a manner that it forms a curtain so to speak in front of the penis, and effectually prevents all mischief, in a much cleaner and more desirable manner.

Some breeders recommend that when a ewe is taken from the teaser to the hand-ridden ram, some short time should elapse before the ewe is placed in the stocks, and there is good reason to support this practice.

A ram, as a rule, should not be used extensively the first year—that is, until his lambs have been seen—because should he prove a bad getter the flock would suffer greatly ; and secondly, after seeing what his first get develop into, it is an easier matter to draw ewes likely to nick well with him the next season. There are exceptions to all rules, and in the case of a very superior ram from a flock which one has known for years and which can be thoroughly trusted, a deep dip may be made the first season with an almost absolute certainty that good will result.

TONIC FOR RAM.

Common Salt, 1 lb.,
Powdered Gentian, 1 lb.,
Carbonate of Iron, 1 lb.,

mix well together and give one tea-spoonful night and morning in damped food.

STIMULANT FOR RAM,

Recommended by MR. LEENEY, in R.A.S.E. Journal.

Cantharides in fine powder, 5 grains,
Elecampane, 1 oz.,
Saccharated Carbonate of Iron, 1 oz.,
Bean Meal, 10 ozs.,

mix and divide into 10 doses and give one three times a week.

TREATMENT OF SHOW EWES.

DOUBTFUL BREEDERS.

As soon as the Agricultural Societies' meetings are over the best course is to turn the show ewes out, at first for a few hours in the cool of the day, and then later on they can be left out altogether. Possibly before turning out some gentle aperient medicine might be given with benefit, and this with exercise obtained in the field and the different food usually brings them into a breeding state. Of course, if the ewes are housed until all the Summer Shows are over, the probability is they will not breed.

Should these fat ewes and others perhaps with patchy rumps turn several times, a ram lamb must be resorted to as a last resource, but in any case these ewes will want more liberal treatment during the succeeding Autumn and Winter months.

TREATMENT OF IN-LAMB EWES.

During the period the ewes are with the ram it is desirable to keep them in as thriving a condition as possible, but for a month or two afterwards sound old pastures or second year's seeds provide all that is required, and as winter approaches a few roots may be given daily with a little hay, either in racks where no

crushing would result, or else in small heaps on the field. A full supply of roots to in-lamb ewes must never be given or probably bad results will follow. Allowing the breeding ewes to follow up the feeding sheep and clean up the old stumps of turnips is a very bad practice, fraught with much danger to the ewes and their progeny.

Some month or six weeks before lambing, a little trough food is sound economy, as the lambs are much healthier and the ewes much stronger and less likely to succumb to a difficult lambing time. The best linseed cake or whole oats are an excellent food, so also is a mixture of boiled linseed, crushed oats and bran, with pulp and cut stuff. In practice this strengthening and emollient mixture greatly assists a safe and easy parturition. It is of great importance that no crushing should take place at the troughs, therefore ample trough accommodation must be provided.

By a simple process of marking with paint, say on the left or right hip, the ewes which are to lamb first, and continuing different markings for each succeeding period, the shepherd will be able so to arrange it as never to crowd the lambing fold, and so minimise the risk of abortion by crushing.

The first batch of ewes to lamb should be placed in a small field as near the lambing fold as possible, preferably in a field on a naturally dry and healthy spot as much sheltered as possible, which should consist of an enclosure of hurdles, with pens on two or more sides of the same, well stuffed with straw, and thatched or covered with hedge brushing, or any other rubbish easy to hand. Arrange the fold so as to be open to the South, and protect as much as possible against North and East winds.

The enclosure (not including the small pens) to be perfect, should have a sparred raised floor in sections, so as to be easily lifted, made of creosoted wood, which can be brushed and kept clean daily with very little labour. A floor of this description ensures cleanliness and healthy suroundings, and the ewes are not so apt to contract foot-rot, which is otherwise very likely to recur in these closely confined and very often dirty wet folds.

NECESSARY PRECAUTIONS IN THE LAMBING FOLD.

Should any ewe die, abort, or strain, after lambing, it should at once be removed to a safe distance, and the woodwork and pen it occupied must be thoroughly disinfected with carbolic acid or other disinfectant, and all the litter, &c., burnt. It is also wise to have in the lambing fold a tub of live lime, with an empty tub and shovel alongside. All cleansings, &c., should at once be placed in the tub and a shovelful of fresh lime thrown over it. By this simple process the lambing fold is kept quite free from unpleasant smells, and the possibility of contagion from unhealthy matter is greatly minimised. These may appear, to some, unnecessary measures to adopt, but those who have noted the disastrous results brought about by carelessness, or want of knowledge, on the part of shepherds, will readily see the desirability of carrying out these suggestions.

Much of the so-called bad or good luck is usually traceable to the treatment the ewes have received during the pregnant period; and a high rate of mortality amongst ewes and lambs is often the result of an excessive supply of turnips, or of the ewes being depastured on cold wet soil, or perhaps folded on heavy turnip lands with water up to their bellies.

ASSISTANCE IN LAMBING.

As a general rule it is better not to interfere too soon. The experienced shepherd will know when to assist nature. In all cases where help is given, the shepherd should freely use carbolized oil on his hands and arms before operating, and in bad cases, and when a ewe has been assisted with decomposing lambs, the carbolic oil should be poured into the vagina by raising the hind legs of the ewe and allowing it to flow in. The shepherd should always be very careful, in all such cases, and when disease is rampant, to wash his hands, &c., with *carbolic soap* after each operation, and freely use disinfectants about his clothes, in fact he should never go from a bad case to assist a healthy ewe, without taking every possible precaution to prevent contagion. All the surroundings—such as litter, and food, of any case where disease

was apparent, should be removed and burnt, and the pen thoroughly disinfected without delay. A barrel with a hinged lid, with some nice dry hay in it, is a capital place to put a sick or weakly lamb in; and is really much more effective than placing it in a warm room, or near a fire.

For a very weak lamb, a large flat India Rubber Bag filled with hot water is far preferable to fire warmth, and in the hands of experienced shepherds, has been very successful in saving life.

TREATMENT AND FEEDING OF EWES AND LAMBS.

It is of great importance to get the ewes and lambs from the fold as soon as possible (except in cases where lambs are very weak, and these must have special care,) because sheep, and especially highly-bred ones, will not stand confinement. The twin ewes and lambs should of course have the best pastures, but, at the same time, the single lambs must not be allowed to suffer. In cases of twins, the ewes can be put on generous diet, as there will be no fear of their getting too fat, and so far as artificial food is concerned, nothing beats a mixture of beans or peas in small quantities, malt-dust, malt, good linseed cake, crushed oats, dried grains and bran; or to save trouble, a prepared lamb food, which meets every requirement.

A lamb trough, with a corn hopper above, that keeps up automatically a constant supply as consumption proceeds, a protruding roof to keep rain out of the trough, boarded sides extending from each end, and lamb creeps in front—the whole forming a small enclosure, are very useful; and, whether for feeding or showing purposes, they greatly aid the Breeder in keeping the lambs in a thriving condition. It should be placed on four wheels, one at each angle, so as to be easily moved; and, if the boarded sides have roof wings, so much the better, as the enclosure will then afford considerable shelter in rough weather.

If any of the permanent pastures are really fresh, we would recommend these for the first few days, because, should the seeds get bare and a change to old pastures become absolutely

necessary, both lambs and ewes generally fall back, whereas by depasturing the old turf first and following with the seeds, an improvement is rapidly seen, as the ewes milk better. A few swedes, cabbage, or mangolds, and good clover-hay in racks is of great assistance, and keeps up the flow of milk, so essential to the well-being of the lambs. In the case of the ewes with single lambs it is advisible, if possible, to let the lambs run forward on to green rye, kale, cabbage, or even to young seeds, where the corn troughs can be placed. This is easily accomplished with lamb hurdles, and prevents the ewes getting too fat for breeding purposes. If it can be spared, a little good clover-hay in racks may however be given them. As much change of pasture as possible is recommended, and if that they are taken to is not so good as that they have left, they should be assisted with an increased supply of roots or other succulent food. A change apparently for the worse generally proves better than no change at all.

LAMB SHELTERS, &c.

A circular enclosure of flake hurdles, with a lamb hurdle open to the South, affords capital protection for lambs from the cold North and East winds; so also do treacle, sugar, or other large barrels with one end knocked out, placed about the field and open to a warm quarter, These barrels can easily be turned daily against the wind, and lambs will make extensive use of them. Warmth to a young animal is equal to so much food. Heaps of soil or rubbish, with one or more loads of fresh lime spread over them, may be advantageously placed in each field for the lambs to gambol about on, and the lime will be found to prevent the same becoming unduly tainted and unhealthy.

A CAUTION TO SHEPHERDS.

It is often the practice to burl the ewe, *i.e.*, cut away the wool on the inside thighs and round the tail, and trim the wool round the udder before sending the ewes to a distant field. It no doubt is right in theory, but practical men say it is wrong, for should cold East winds prevail gargetted udders will be the result with

the loss of several ewes. Just take away any quite loose wool near the teats, which may possibly get into the lamb's mouth and so cause death by swallowing, but do not interfere with Nature's protection to the udder until warm weather is assured.

MARKING THE LAMBS.

When the lambs are a few days old—say at the end of every week, all the new comers should be ear-marked according to the plan the Breeder decides to adopt.

A very simple plan is to number the lambs with the same numbers as their dams, which enables one to extract the Pedigree by a reference to the mating column in the Private Flock Book, and if tattooing is adopted the several letters of the alphabet could be used to indicate the year of birth. For example a lamb from No. 1 ewe could be tattoed "1 A," to indicate a lamb from ewe No. 1 in 1898, and in 1899 a lamb from the same ewe should be marked "1 B." Of course the letters to denote the years should be recorded in the Flock Book.

Instead of at once marking the lambs permanently, it is perhaps better to have them marked every few days to correspond with their dams, with iron numbers dipped in red or blue paint to which a certain amount of Linseed Oil and Turpentine is added, and which dries rapidly and remains readable for a considerable period. This the shepherd can easily do with a little assistance, and later on the requisite permanent numbering can be carried out by the breeder. The simpler plan is however explained on page 11, and the Illustrations of same on pages 12, 13, 14, 15.

It is best to commence with the No. 1 in both sexes. This style of numbering does away with the necessity of a memorandum book, to keep a record until properly entered up.

CASTRATION OF LAMBS.

This, in the case of a pedigree flock, is not recommended, as lambs alter so much, that possibly one of the best may be sacrificed to the butcher, whereas, if the ram lambs are kept in a

thriving condition throughout the Summer and Autumn, the selection can be safely made, and some two months' extra pushing will make the culls ready for the butcher.

DIPPING.

As soon as practicable—say, when the ewes are shorn, and before they are weaned—all the lambs should be dipped; and to thoroughly eradicate ticks, the ewes should be dipped also, but in their case the process should be repeated in Autumn. The object of dipping is to destroy the parasites in the fleece; to kill off any young insects which may afterwards hatch out; and to protect the sheep from subsequent attacks.

Experience has taught us that sheep thrive much better when their skins are clean; and it has been clearly proved that a good Dip increases the quantity and improves the quality of the wool. It is absolutely impossible for lambs infested with ticks or other parasites, to thrive properly, owing to the constant irritation set up. In trying to get relief, lambs often nibble at the fleece and swallow small portions of wool, with fatal results. A good and regular system of dipping the entire flock is money well expended. Hence most leading flockmasters dip twice in the season; once as indicated, and again in the autumn.

The modes of dipping are various. For small flocks the hand-bath is in general use; but the swim-bath is by far the best when flocks are large enough for its adoption; as this system gives much less trouble, saves labour and expense, and the operation is far more effectual.

As to the kind of Dip, opinions differ. If, in addition to cleansing the fleece, it is required to preserve the flock from fresh attack—surely a matter of paramount importance—a "poisonous" Dip must be selected. Amongst these Cooper's is of course supreme, as it is most carefully prepared by qualified men of large experience, whose sole aim during the last sixty years has been to produce a first-class Dip.

WEANING.

Weaning, if not conducted with care, and with proper forethought, will inevitably lead to a derangement of the system of the lambs.

In some cases, at a very early period, the lambs are separated from their mothers, and at once placed on seeds, which are perhaps burnt up and totally unsuitable to the tender stomachs of the lambs. The sudden transition from the milk of the ewe to the dry summer food, is beyond the power of their digestive organs. The new food is not properly assimilated, consequently, general derangement of the stomach and system immediately follows, of which the small threadlike worms that are found in the lungs are but the indication. This is attended with fever and loss of appetite, parasitic worms, as already alluded to, are engendered in the vessels of the throat and lungs, and soon terminate the life of the animal.

To prevent these evil results, the food supplied at weaning time should be of a highly nutritious quality, and such as can be easily assimilated, and if the weather is hot and dry, a plentiful supply of clean water should at all times be available.

The date of weaning depends on the particular breed of sheep and the locality, and the breeder must be guided by circumstances ; but in all cases it is important to put the lambs, when weaned, on a good pasture, or amplify their food as suggested later on. Early weaning is in most cases to be recommended for the following reasons :—Keep is usually scarce at this season, and this affords an opportunity of giving the lambs the best pastures, and putting all the ewes into one field, instead of being all about the farm robbing the lambs. As a matter of fact, ewes, after weaning, should have a poor pasture. In some districts, weaning is so late, that aftermath clovers are available ; but in the majority of cases this will not be so, and if cabbage, mustard, or other green crop be to hand, so much the better, as the object is to minimise the loss of the milk as much as possible. A little corn

should be given, but it must not be of a heating or too stimulating nature; probably, nothing, for safety, surpasses extra good linseed cake with crushed oats and bran. The lambs must be divided according to sex; and should, as soon as vetches, common turnips, and mustard, can be got in succession, be put on the arable land and pushed forward in a healthy natural way, avoiding an undue proportion of artificial food. As the harvest is cleared, the young seeds afford a good change for the lambs; from which they should be removed at night to the arable land. Close folding, if possible, should be avoided, as it tends to fatten and not to develop muscle and strength, which should be the object in a breeding flock. By this is meant, that the hurdles should not follow close upon the sheep, but that the sheep should be allowed to roam at large over the field.

The experience of breeders during the last decade seems to point to keeping the lambs from the period of weaning, right through the Autumn, on arable lands, eating a variety of green foods—turnips and young clovers, and not on old pastures, where, without doubt, the larvæ is picked up.

To carry this out, the breeder must exercise a little forethought, and arrange for a succession of tares, cabbage, kale, rape, and other suitable foods. This can be easily done by planting so much Winter tares and rye in the Autumn; following up with Spring tares, early Enfield Market cabbage,—planted in February or March, according to the weather; the drilling of the early Enfield cabbage, early sheep fold and ox cabbage at intervals during the Spring and Summer months; assisted with white turnips, rape, kale, rabbi, in suitable quantities. A large flock can be kept in this manner, and with care and systematic drenching losses can be reduced to a minimum.

SHOULD LAMBS BE SHORN OR NOT.

Most breeders recommend shearing as giving greater immunity from the fly in summer; and also preventing the clinging of the soil to the belly when on turnips, but it should not take place

until June, or the lambs may suffer a severe check from the exposure to cold.

HUSK OR HOOSE AND PARASITIC TROUBLES.

It is probably well within the mark to state that two-thirds of the disease and mortality in our flocks are of parasitic origin, and that despite the vast strides made in sanitary science, and our larger acquaintance with the life history and habits of ovine parasites, diseases of this class are much more common than three or four decades ago.

That some Flockmasters, by intelligent observation, together with good veterinary advice, have greatly minimized the loss by disease is an undoubted fact; but amongst the great majority of flocks, parasitic diseases are still accountable for numerous deaths.

Prevention is better than cure, and to endeavour to secure immunity from this most fatal complaint, it is an excellent plan to drench the whole of the lambs several times with one of the well-known patent remedies, or with the following, which costs less and is to all intents and purposes as good, viz:—

½ oz. Asafetida,
½ oz. Turpentine,
⅜ oz. Linseed Oil,

given in half a gill of milk or thin gruel two days consecutively upon an empty stomach.

Should the breeder neglect these precautions and get disease amongst his lambs, the writer will be glad to give the name of an article which has proved itself to be far above the average as a cure, but it is no part of this work to place one man's remedy in front of others.

STOMACH WORMS.

A remedy successfully used in the United States, at the Ohio Experiment Station, and the Wisconsin Experiment Station, and also by private individuals, is Benzine, or Gasoline, or Creoline. The lambs should be fasted for some hours previously, and two

drams of Benzine should be mixed with either three ounces of New Milk or luke-warm Linseed Tea. This is the proper dose for each lamb, and should be administered on three successive mornings. On the fourth morning it is recommended that each lamb should receive a three-ounce drench of raw Linseed Oil. Extreme care is required in drenching, as it is very easy to strangle a lamb. It should be noted that if Creoline is used the drench must only be one dram.

Summary of Report Issued by the Ohio Agricultural Experiment Station: Bulletin 117, April, 1900:—

"Meteorological conditions are not wholly responsible for the appearance of the stomach worms, though wet seasons and low wet pastures may aid their development.

"Good authorities claim that infection comes through grass taken from pastures where sheep have fed and dunged, and that the egg is there left in the manure and taken in while the host is pasturing. The experiment detailed in this bulletin confirms that opinion.

"Characteristic symptoms are hardly to be separated from conditions due to similar trouble caused by other parasites of the lungs and alimentary canal.

"Benzine, when given with care, is one of the best remedies known, and from the evidence thus far gathered, reaches and destroys the parasite.

"Gasoline is quite as good for the purpose as benzine, and sweet milk may be substituted for flaxseed tea.

"One tablespoonful of gasoline and four ounces of sweet milk well shaken together, is a good dose for sheep weighing anywhere from **60** to **100** pounds. The quantity of milk may be reduced or increased slightly without detrimental results.

"Each sheep or lamb should be set on his rump and so held that he will not struggle, while the dose is given as a drench, and his head should not be thrown farther back than the natural position while standing.

"Treatment should never be given on full stomach, but only after 12 to 18 hours fasting, and neither water nor feed should be given inside of two hours after giving the medicine.

"Treatment should be given three days consecutively, then repeated one week or ten days later for the same number of days.

"The monthly gains made by our lambs, after giving gasoline in the recent experiment, together with other evidence, indicate that no practical injury has been done to the digestive system or to the general constitution of the animal.

"This single experiment indicates that lambs kept from pasture will not suffer from this parasite, and may be made the equal in size and constitution of lambs running with mothers all the time."

STURDY, FROM TAPE WORM IN DOGS.

A NECESSARY PRECAUTION.

Dogs infested with Tape Worms very frequently act as the medium in the infectation of the flock with Sturdy or Gid, known in some districts as Goggles, Blobworl, Punt, Turnside, Turnsick, and therefore every care should be taken to guard against this source of trouble. All dogs on the farm should periodically be dosed with Areca nut or other suitable medicine, to be followed some 10 hours after with a dose of Castor Oil. By this simple practise the worms are expelled, and the danger of infestation greatly minimised. Of course the dogs should be shut up until the medicine has thoroughly acted; and though, at the outset, these precautions may appear unnecessary, many cases could be given where valuable young sheep have been lost in great numbers.

Mr. John Gamgee, lecturing at the New Veterinary College, Edinburgh, in 1859, said—"I have found that wherever lambs can be kept without dogs, 'sturdy' is unknown; but in mountain districts, and where dogs are indispensable, the malady decimates the flocks."

The following remarks upon the disease and its treatment are from "The Diseases of Sheep," by WM. COOPER & NEPHEWS:—

"The disease is due to the presence of the tapeworm in the "brain of the sheep. Segments of the tapeworm, containing "mature eggs, are picked up while grazing. The locality of the "parasite can frequently be determined by pressing on the skull, "which becomes softened over the spot where it is lodged. Here "the skull may be incised with a trephine (an instrument made "for the purpose,) and the parasite either removed bodily or its "cyst perforated and the fluid allowed to escape. The wound is "then closed by the application of a bandage or of tarred tow, "and recovery follows if too much brain substance has not been "destroyed."

SELECTING SHEEP FOR AGRICULTURAL SHOWS.

At the end of October, or early in November, some 10 or 12 ram lambs, and about the same number of ewe lambs (if required,) should be selected, with a view of giving them a little more care and attention than the rest, for exhibition purposes. This requires a great amount of care and discrimination on the part of the breeder. In the first place, we would recommend that double the required number be drawn out, the lambs from ewes which have previously bred exceptionally well, being specially noted. After this they must all undergo a careful scrutiny, and all that have defects which would bar their winning, must be discarded at once, as it would only be time and trouble thrown away to prepare and feed for show an animal that could not be successful. What is a defect which cannot be passed over in a show ring must be left to the judgment of the breeder; but it is quite clear to any observant person that many breeders never exhibit their best sheep. They either do not take the care in selecting that they should do; or, what perhaps is very probable, they delegate the same to the bailiff or shepherd.

The young sheep intended for exhibition should be allowed to run out daily until about March, on an old turf for preference, and at night should be housed. But should the winter prove very mild they are really better not housed at all until March. They should also receive a liberal allowance of such succulent food as the farm will allow,—such as turnips, kale, cabbage; ½ lb. to 1 lb. of artificial food, consisting of crushed oats, best linseed cake, and bran, and as much good clover-hay as they will consume, Neither beans, peas, lentils, or any other highly nitrogenous food

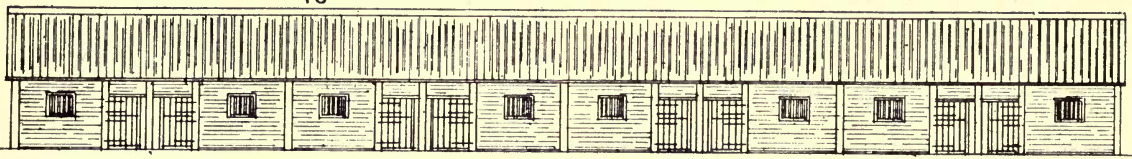
are considered desirable, as they heat the body and tend to produce gouty acids and to derange the system ; and if given in excess, the results will soon be seen in ricketty legs and a shrunken appearance of the barrel. A small quantity of malt is sometimes used; but it must be given with great care, and it is perhaps best left out of the dietary of breeding animals. One of the difficulties to be overcome is to impress upon the shepherd the fact that sheep grow and thrive better upon plenty of green food, and good clover or sanfoin hay, with a moderate allowance of corn, than with corn *ad lib* and a short supply of nature's own food. How many breeders have had a good pen of ewes or a valuable ram completely ruined by the injudicious use of too much trough food. All young or inexperienced shepherds make this great mistake; and the watchful eye of the master should be ever on the alert to counteract the tendency of the shepherd to use artificials too freely. The most successful feeders of show sheep are invariably warm advocates for a variety of green food ; using, comparatively speaking, little else.

As soon as March comes in, the sheep intended for exhibition should be shorn ; but it will be far better for all concerned when the Royal and other Societies abandon the rule as to shearing, and leave the whole question in the hands of the Judges. It is advisible to postpone shearing somewhat (at any rate, in the case of Down breeds,) as it is too early to house aged sheep, and they could not stand the inclement weather usually prevailing at this period of the year if shorn. On no account wash the sheep intended for exhibition before shearing, as it may, at such an early period, cause death by chill.

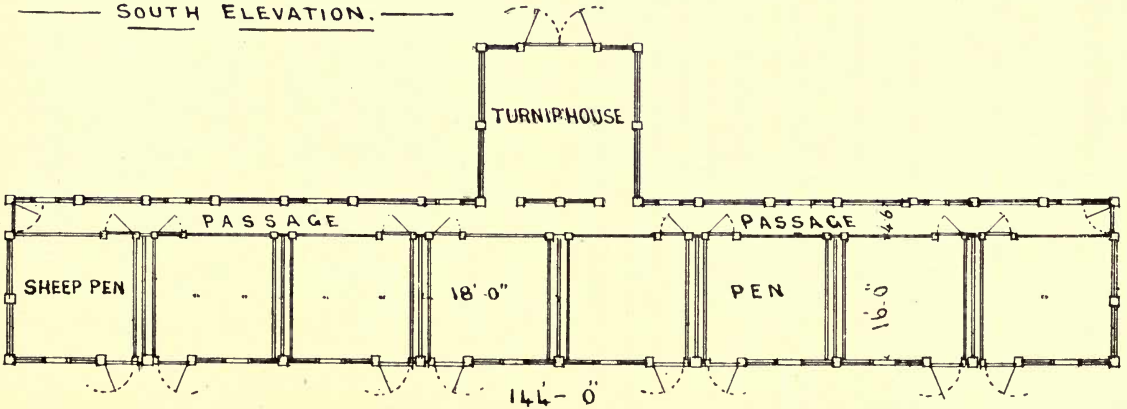
The sheep should, after shearing, have their feet carefully looked to and pared; and again undergo a close examination, with a view of finding if there are any that are too faulty for show purposes. If they all pass muster, they must be divided into small lots and pushed on (with judgment) as rapidly as possible; as the summer meetings will soon be here, and no time must be lost. Not more than three of the best rams should be put together,—they are still better alone,—and the ewes say in two lots. Sheep

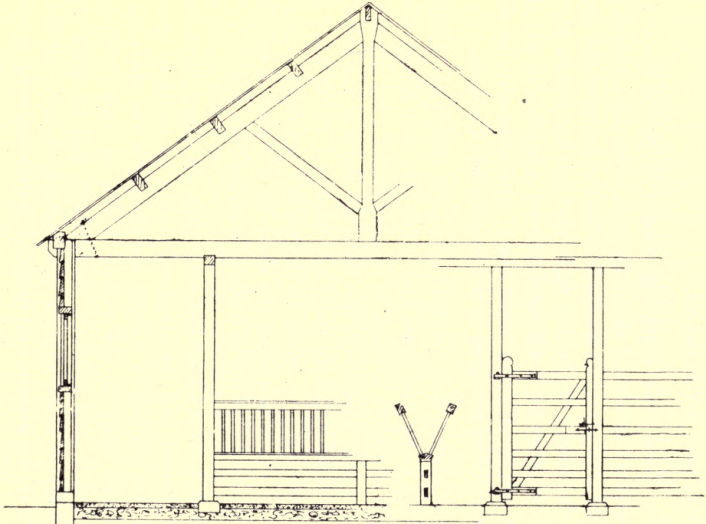
SHEEP SHED

SCALE $\frac{1}{16}$ ONE FOOT



SOUTH ELEVATION.





1" DETAIL OF ROOF & PEN FITTINGS.

Height 18 feet.

thrive and do better in small lots; and in the case of rams, it is absolutely essential to divide them as much as circumstances will allow.

Rams are not so likely to fight in lots of three as when two are penned together, but as before stated the best animals should, if possible, have pens to themselves.

The sheep shed (*vide* engraving) should be placed on a dry spot, and a good system of drainage is as essential. It will be observed that the turnip house is placed in the centre of the shed, and that the sheep can be fed right and left by means of the gangway. In practice, it will not be found advisable to put the show ewes and rams in the same shed; and generally, another building may be so arranged as to accommodate the ewes.

A wooden sparred floor, made of creosoted timber, in sections, and therefore easily put down and taken up, and raised some 6 or 8 inches above the ground, is recommended. By placing a good layer of peat moss under this floor, the whole of the urine is absorbed, and the shed kept sweet and healthy. These floors are great litter economisers, owing to the perfect drainage ensured; and, as a natural consequence, the sheep have always a comfortable, dry, bed, and are not so liable to contract Foot Rot.

Exercise is, however, essential, even after the sheep have been shorn and housed, and the shepherd should be made to understand that the chances of success are greater if the sheep have gentle exercise daily to the extent of one or two miles. It develops muscle and strength, keeps them well on their legs, gives them an increased appetite, and promotes health; all which results in a thrifty growth, and firmness of flesh not to be seen in the ungainly obese creatures often sent for exhibition. Exercising the show animals is pleasant occupation for the proprietor; and if he be accompanied occasionally by a friend, so much the better; as the animals get used to strangers, and become docile and quiet. In some cases, the master rarely goes near his sheep; and when he does do so, a few days before the commencement of the show season, he is rather annoyed at finding them scared and

frightened as soon as he presents himself. The most successful men the writer has been brought in contact with, play and faddle with their animals, and notice their daily growth; and if they are not doing as they would wish, change the diet somewhat, or perhaps administer some corrective medicine.

SHOW SHEEP IN APRIL, MAY, JUNE, &c.

Roots have become scarce by now, but there is generally a fair supply of mangolds, and these should be mellowed by exposure to the sun. And it is even safer to finger them a day before they are wanted. Mangolds may be safely given to the feeding ewes; but with rams there is considerable danger, if the weather is very cold, and if the mangolds have not been well mellowed, they are apt to produce the water complaint. So many valuable sheep have, indeed, been lost by their use, that many breeders discard them for their best sheep, and substitute a hardy white Swede, (a native of Cotswold Hills,) supplemented with an early cut of rye, grass, and clover, (pushed on with nitrate of soda,) kale, winter vetches, cabbage, rye, &c., &c The great aim should be to get a succession of green crops to follow; and though, undoubtedly, they are costly to secure, it is of paramount importance that there be no stint, as animals feeding for exhibition should not suffer a check.

Lucerne on suitable soil is an excellent green crop to grow for young sheep. It comes to cut fairly early, and, with liberal manuring, quite 4 cwts. can be had in the year; while in a period of drought it has many advantages, owing to the depth to which the roots go down into the soil.

PREPARING LAMBS FOR SHOW.

These should be chosen with care, examining each lamb minutely as to wool, skin, and other points characteristic of the breed; and, as a rule, early well-grown lambs have much the best chance. Let the lambs selected be dipped at once, repeating the operation a month or six weeks later. Give them as much

room as possible on land which has not been fed with sheep; housing them at night, and supplying them with green food, and about ½ lb. of linseed cake, oats, and bran, mixed, (no beans or peas). As the year advances, house in the heat and glare of the day, and allow them recourse to a field for a few hours in the evening. As the show-time approaches, it may, perhaps, be advisable to trough feed entirely, and only allow them out for the sake of exercise; as they are apt to fall away when from home, if not so treated, and unaccustomed to confinement. Attention should, from time to time, be given to the lambs' feet; for should foot-rot ensue, they rapidly lose both flesh and bloom.

BEFORE THE SHOW.

Having brought the sheep of the respective classes as near to perfection as possible, as regards growth and condition, much will still depend upon the way in which they are placed before the judges; and here the skilful master, bailiff, or shepherd, has the advantage of the tyro. Every care should be taken in matching the ewes and lambs for each pen. A prize is often thrown away by putting together animals of different sizes and types; and in the case of rams, those which handle well and are in the pink of condition, may perhaps run a better race than much superior animals not so forward.

Again, it would be bad policy to send the best animals away from home the week or so preceding the Royal or other important meetings, where the breed musters in great numbers and the prizes are more valued. Such a step would be placing the sheep at a disadvantage, as they would undoubtedly lose much of their bloom.

ADVICE AS TO SELECTION.

If the exhibitor feels convinced he cannot show to win, he should not select the biggest to represent him, but rather those which are the truest to character and type, and likely to attract the attention of breeders; because, by so doing, he will probably ensure their attendance at his sale, with perhaps more re-

munerative results than the mere money value of a prize. Undoubtedly, many men have injured their reputation by exhibiting animals not true to character, when perhaps their flock in its entirety was a very good one.

TREATMENT OF THE MAIN PORTION OF THE YOUNG SHEEP.

The young rams and ewes, not for exhibition, should be kept on turnips, kale, &c., on the arable land, until it is wanted for barley sowing (folded, or otherwise, according to the nature of the farm,) and then on turf or seeds until about May, when it is desirable to shear them. Should the weather be very cold it is better to house them entirely for a few days, until they get less liable to contract a chill. Mangolds are apt to cause mischief in freshly shorn animals, unless the weather be warm; so perhaps it is safer to leave them out of the dietary for a short time.

For the majority of the rams, it is better to allow them, say in May and June, to spend the day time in the field, and afterwards to remain out at night as well, housing in the day if the weather is very hot. This treatment tends to growth and muscular strength instead of fat, and rams brought up in this way usually prove prolific sires.

Some two months or so, (not longer) before the annual sale, the outlying rams may be housed, but the wisest course is to house the rams during the intense heat of the day; supplementing their food with cabbage, kale, and such other food as the farm affords, and letting the rams run out at night. This system is more likely to ensure strong vigorous animals than if the rams were housed entirely and made unduly fat.

The shearling ewes for sale should be placed on as good a pasture as the farm affords; and treated in such a manner as to promote a swelling of the frame rather than a making of flesh. For this purpose, green foods—such as vetches, rape, cabbage, with a small addition of corn,—some six weeks before selling, are the best.

PREPARING FOR SALE.

The cull rams should have gone to the butcher early in January, and now, mid-May or so, a further batch must go. It is far better to keep for the sale none but good animals, because 30, 40, 50, or more, really first-class sheep, will make as much, or more, than double the number of indifferent ones; and this weeding out of the weak ones will help to keep the demand on a level with supply. Thus, in addition to securing better prices, the breeder will put the money realised by the drafts into his pocket some three months earlier than if they had been kept for stock purposes. Again, if only the best are sold as sires, the results obtained by their use redounds to the credit of the breeder; and he soon reaps the benefit of the course adopted, by the increased demand for his rams.

If breeders would well consider this, gluts would rarely occur, and the sheep stock of the country would be much improved.

The same treatment should be adopted with the ewes; and no ewe should be sold with a pedigree, unless she is passable and likely to breed well. It must be suicidal to a breeder to disseminate animals that will not do him credit; and it is far better to sacrifice a few at butchers' prices, than to secure a few shillings extra by allowing cull sheep to be sold for breeding purposes. If the ewes are sold in pens, carefully draw them to match, and do not marry one or two of the inferior ones with some of the best of the flock. This would probably be the means of losing a good customer for the best sheep.

MANAGEMENT OF BREEDING FLOCK, AND DRAFTING.

The lambs from each ewe should be carefully noted by the shepherd, (and master if practicable,) so that when the drafting comes (usually June or July,) it can be seen which ewes are breeding satisfactorily, and what class of ram suits them best; because, possibly, some of the most promising lambs may be the

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offspring of ewes that would otherwise be discarded. In a pedigree flock, a regular system of drafting at a certain age cannot be followed with advantage; for, in some cases, it is wise to keep a ewe—a good ram breeder—as long as she will continue to breed; while others which produce nothing good as yearlings, or two-shears, may safely be put aside.

At the same time, the breeder should try and draft upon a plan which keeps the flock from degenerating into a lot of old ewes; for should a dispersion for some cause or other be necessary, a young stock will be sure to realise good prices, as compared with one which has lost its bloom, no matter how good the previous record of these aged ewes may have been.

As to the number of ewes which should be drafted annually, one must be guided by circumstances. Should the young ewes be exceptionally good, and by one or more sires which you have a high opinion of, it will be politic to draft from the breeding flock more largely than usual. If, on the other hand, the shearling ewes are not to your liking, it may be well to add none to the breeding flock, and dispose of the young ewes in their entirety, when they usually sell exceptionally well. These matters must be left to the judgment of the breeder; but all such details are of great importance, and whether they receive due attention or not, means success or failure.

As before stated, it is sound policy so to manage the flock that it shall not deteriorate into a lot of old worn out ewes; and with due care this can be avoided. A well bred and good young flock must always have a far larger commercial value than one in which several of its members have passed the prime.

SELECTION OF SHEARLING EWES TO ADD TO FLOCK.

The selection of the shearling ewes to add to the flock is a matter of great importance; and every breeder who is wise, will not fail to give it his personal attention. To begin with, we would recommend that the selection should be made, in the first

instance, before shearing, when one has a better opportunity of judging of the quality and staple of the fleece; and then, finally, the selected ones should be carefully examined a month or so after shearing, when, probably, some which had a pleasing appearance, and looked well-developed, deep-grown sheep in the wool, may strip somewhat ugly in feature, and prove leggy and shallow. Of course, more ewes must be marked than are actually wanted; and it will also be well to look carefully through the discarded ones, to see that no really good animal has been rejected. The marking is easily done with a touch of paint, and each sheep can be re-marked as soon as it is shorn. Appearance and exemption from defects must not be the sole guide in selection; as ewes from well-known good breeders should always be retained, unless there is some cogent reason to the contrary.

The Breeder should spare no trouble in the selection of ewes to add to the flock; and the ultimate choice should receive confirmation by repeated observations, guided to a certain extent by the individual breeding in each case.

Even with all the care, thought, and knowledge the Breeder possesses of his own flock, he will, without a doubt, make several mistakes; hence the great importance of adopting any and every means to ensure a right selection.

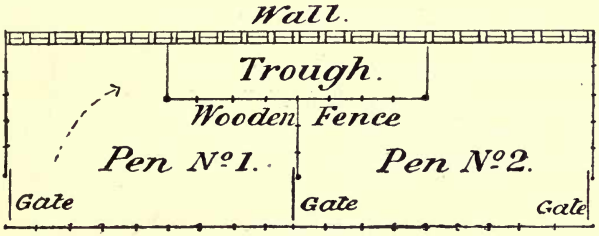
FOOT ROT AND ITS PREVENTION.

No flock can thrive where this is present; and as, undoubtedly it is contagious, it is wise to submit all bought sheep (which should be few,) to a thorough disinfecting before being allowed to mix with the general flock. Generally speaking, it may be said that foot-rot is the outcome of laziness, and with due care it should rarely be present to any large extent.

The plan adopted by MR. DAVID BUTTAR, of Corston, Coupar Angus, Forfar, N.B., for dealing with foot-rot, and strongly recommended, is as follows:—

"Pass the whole flock, twice during the year, though a solution of arsenic, which is thus prepared:—Boil 2 lb. of arsenic with

2 lb. of potash (pearl ash,) in 1 gallon of water over a slow fire for half-an-hour. Keep stirring, and at any signs of boiling over pour in a little cold water; then add 5 gallons of cold water. Put this solution to the depth of 1 in. to 1½ in. (just sufficient to cover the hoofs of the sheep,) in a strong, well-made, water-tight trough 12 ft. long by 18 in. wide, and about 6 in. deep, with narrow strips of wood nailed across the bottom to prevent the sheep from slipping. The trough must be set and fixed perfectly level alongside a wall or other fence in some out-of-the-way place. It should be provided with a good water-proof lid, secured by a padlock, so as to prevent the possibility of danger from any poison which might be left in the trough. There should also be a wooden fence on the other side of the trough, extended somewhat at the entrance end, to guide the sheep into it, as indicated in the diagram."



Before the sheep are driven through the trough, their feet should be well pared; then walk them gently through and let them remain in Pen No. 2 for half-an hour or so before taking them back to their pasture.

If sheep are badly attacked, we would recommend drawing out all the affected ones and passing them through the trough a second time, after remaining for half-an-hour in the pen. Should this not cure them, repeat the process in a fortnight or three weeks time.

If a flock is very seriously affected it is really better to dress each foot separately and hold the same in an iron pot in which has been placed a certain quantity of the Arsenic and Potash

Solution. By this means you ensure thorough treatment; and, if persevered in, a complete eradication of the disease is the result.

Having got free from foot-rot, the passing of the flock through the solution twice a-year will completely prevent any new attack.

Before adopting this plan Mr. Buttar states his sheep were scarcely ever free from the disease.

Mr. R. E. TURNBULL used the following recipe for the extensive flocks on the Earl of Carlisle's home farm:—

Dissolve 1 lb. of arsenic, 3 lb. washing soda, and 1 pint of pure carbolic acid, in 12 gallons of water.

Have a trough—say 16 ft. long, 10 in. wide at the bottom, 14 in. wide at the top, 1 ft. in depth. Place the trough alongside a wall, and fix hurdles on the side of the trough opposite the wall. Make a pen at one end of the trough in which to collect the sheep to be treated. See that the sheep walk slowly through the trough, and let them pass through twice a-week till cured.

A simple and effective remedy is to walk the sheep through a trough containing a solution of Cooper's Dipping Powder, one packet to two gallons of water.

MAGGOTS.

The old adage "prevention is better than cure," applies with special force to this, in many cases, the shepherd's most troublesome enemy. If you can only make the fleece distasteful to the fly you will have no maggots.

A general summer dipping a month after shearing will practically free the flock from attack for the rest of the season. Of course, wounds and abrasures, and wet or manure-stained places on the hinder parts, will lay the animal open to risk, but such can be readily attended to.

Where this dipping has been neglected, animals struck with maggots should in the early stage be dipped with Cooper's Dip. If the maggots are very bad they should be removed by hand,

and the affected parts dressed with a mixture of carbolic acid one part, water thirty parts.

MUTTON FLOCKS.

Although the advice here given is written primarily for Stud Flocks, much of the same care and thought could profitably be bestowed on the management of ordinary flocks, but in most cases many more sheep could be run on the same holding, the turn-over being much quicker with mutton flocks than those kept for stud purposes, as with a proper system of growing successive crops during the Spring, Summer and Autumn months the lambs should all go to the butcher at 9 to 12 months old. Large joints the public do not want, whilst there is an unlimited demand for young, well matured, home grown mutton.

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The concluding pages contain the opinions of some of our leading sheep-breeders on many questions vital to the farmer. There is of necessity great difference of opinion upon details of management, but much of this is explained by the varied conditions under which the several breeds of sheep are reared.

REPLIES TO QUESTIONS from the following Breeders:—

Name of Flockmaster.	Index Letters.	Address.	Breed of Sheep kept.
T. H. Hutchinson...	T.H.H.	Manor House, Catterwick	Leicesters
Charles Howatson	C.H.	Glenbuck, N.B....	Black-faced Scotch
W. A. Treweeke	W.A.T.	Ryne Hill, Kingham, Chipping North	Oxfords
John and Samuel Treadwell	J.S.T.	Upper Winchendon, Aylesbury, Bucks	Ditto
W. R. Flower	W.R.F.	West Stafford, Dorchester	Dorsets
W. T. Garne	W.T.G.	Aldsworth, Northleach, R.S.O. ...	Cotswolds
Alfred Tanner	A.T.	Shrawardine, Montford Bridge, R.S.O. Salop	Shropshires
Henry Dudding	H.D.	Riby Grove, Stallingborough ...	Lincolns
Richard Powell Cooper	R.P.C.	Shenstone Court, Lichfield	Shropshires
Carey Cole	C.C.	Manor House, Winterbourne Stoke, Salisbury	Hampshires
John Robson	J.R.	Newton, Bellingham	Cheviots
Tom Casswell	T.C.	Pointon, Folkingham, Lincolnshire	Lincolns
W. S. Ferguson	W.S.F.	Pictonshill, Perth	Border Leicesters
T. J. Other	T.J.O.	Howgrave, Wath, S.O.	Wensleydales
Andrew Evans Mansell	A.E.M.	Harrington Hall, Shifnal	Shropshires
Jacob Robson...	R.J.	Byrness, Otterburn	Cheviots
Hon. W. G. Scott, (*Agent for Lord Polwarth*)	W.G.S.	Humbie, East Lothian, N.B. ...	Shropshires
W. Millen	W.M.	Syndale Valley, Faversham	Romney Marsh
S. R. Sherwood	S.R.S.	Playford, Ipswich	Suffolks
J. Dixon, (*Agent to J. L. Naper, Esq*)	J.D.	Loughcrew, Oldcastle, Ireland ...	Shropshires

No. 1 QUESTION.—*When do you put your Ewes to the Ram?*

T.H.H.	October 1st.
C.H.	November 15th to 20th.
W.A.T.	I select a few of the best ewes and put the ram with them on the 1st of August and have all the rams out by the 20th of August.
J.S.T.	About September 1st.
W.R.F.	In June.
W.T.G.	About the middle of August.
A.T.	First week in September.
H.D.	September and October.
R.P.C.	First week in September, young ones about a fortnight later.
C.C.	August 7th.
J.R.	November 21st.
T.C.	From the middle of August to September 1st.
W.S.F.	About the 15th of October, the reason for the lateness being that the lambs come nearer to grass, there is not so much wear and tear of the ewe, expense of keep is less and the shearlings are quite forward enough for the sales in the second following September.
T.J.O.	About the middle of October. The ewes would take the ram earlier, but I prefer to have them lamb about the end of March or beginning of April as by that time there is generally a little grass in the Pastures and Seed Fields and nothing helps young lambs more than young spring grass, the losses in lambing are also smaller as spring advances and to sum up the whole case a Lady Day lamb will make quite as good a shearling as one born a month sooner and will be raised at less cost.
A.E.M.	Mid-August to September 1st.
R.J.	About the 20th of November.
W.G.S.	During October.
W.M.	About the 20th October.
S.R.S.	2nd week in August.
J.D.	The ewes are put to the ram generally about the 20th September.

No. 2 QUESTION.—*Do you put your show ewes (if any) to the ram at the same time as the general flock, and in all other respects treat them alike?*

T.H.H.	A few selected ewes for breeding rams are put to in September.
C.H.	The rams are generally put to the show ewes three weeks before the hill ewes so as to get full use of the ram afterwards with the hill ewes. The show ewes get a little hand feeding.
W.A.T.	Yes, I put my show ewes (if any) to the ram at the same time and treat them the same as the general flock in all respects, but I find they breed very small lambs the first year, but afterwards their lambs are as good as others.
J.S.T.	Do not now shew ewes, used to treat them as the others,
W.R.F.	No, not until August (see Answer to Question 1.) I find if they are put to the ram when in high condition they generally turn. I allow them a little Linseed Cake right through the first year after showing, it would not do to take off all their corn at once, the change would be too great.
W.T.G.	Yes, and when served do them a little better than the ordinary flock.
A.T.	Yes, give them a little extra keep to prevent them falling away too fast.
H.D.	The show ewes are put to the ram at the same time, and are treated just the same as the other ewes.

R.P.C.	Same time. Treat them better if I find them falling off.
C.C.	I do not show ewes now as I have proved them uncertain breeders after.
J.R.	No. They are kept here, and are put to the ram about October 1st, and are fed on artificials and turnips.
T.C.	Yes.
W.S.F.	When showing ewes, which is now very seldom, they are put amongst the general lots as soon as the shows are over.
T.J.O.	Any ewes I intended to keep for breeding purposes should certainly not be fed for show, and I would never buy show ewes.
A.E.M.	I never feed ewes for show.
R.J.	I put the show ewes to the ram in the beginning of October, and of course feed them as usual.
W.G.S.	Any show ewes are put to ram at same time as general flock, and at this season treated exactly the same.
W.M.	Yes.
S.R.S.	Yes.
J.D.	The show ewes are put to the ram at the same time as the general flock. All are subjected to the same treatment.

No. 3 QUESTION.—*Do you make any alteration in the keep at this time; if so, what are your reasons?*

T.H.H.	When the ewes are put to the ram I like to give them a better pasture, or put them on thousand headed Kale, Cabbage or Rape, the reason I do so is, I think I get a better crop of lambs.
C.H.	No alteration.
W.A.T.	I put my ewes on better common about a week or ten days before the rams go with them so as to get them in a thriving condition, when they will take the ram quicker, latter-math clover I like for tupping them on and remove the ewes as they are served on to a stale bare common, otherwise they will probably return.
J.S.T.	Our ewes are drawn out to each ram in a Pasture field much thinner than previously, probably they have been on the arable land (some of them) up to this time.
W.R.F.	I give the ewes a little corn, maize, or beans, the ewes take their season better together and get a larger number of twins. As soon as the ewes are served take off the corn or they may turn.
W.T.G.	If possible I like to have the ewes thriving when put to the ram as I think they bring more twin lambs.
A.T.	Endeavour to get them on a fresh pasture to make them go rutting and we think by putting them in a good fresh pasture to get a larger crop of lambs.
H.D.	The ewes are kept well during September and October, as they take the ram sooner if fed well.
R.P.C.	No difference in keep. Have ewes lean when put to.
C.C.	I increase the ewes food, if possible, about a fortnight before the rams are put out, and continue this for six weeks until the majority have been to the rams, then I keep the ewes rather short for a month. I think the flush of extra food makes them take the ram quicker, and the slight check after prevents them breaking their service.

J.R. None with my regular stock. I generally try to get the show ewes started to thrive a little better than they had been. They are usually put off feeding for a month or so after the shows are over, hoping to get them to take the ram as soon as possible.

T.C. No.

W.S.F. I make no alteration in keep to prepare for the tupping season. The ewes are generally in good condition when the lambs are weaned, and we have always too many lambs to begin with. I find we end up better at weaning time when the ewes produce about 1¾. In the case of Mountain sheep, brought to the low country for crossing, I have found it advantageous to first get the ewes in a vigorous thriving condition before putting the rams with them. This not only increases the number of the lambs, but what is more important, the lambs are stronger and healthier. In pure-bred stock well cared for all the time, I do not think it necessary to make any difference.

T.J.O. After the lambs are weaned I send my ewes on to the poorest and hardest pastures I have, until within a fortnight of putting to the ram, and then put them in fog, if I have it to spare, maiden seeds or the best flushing meat there is on the farm, the reason for this is, by putting them on to a poor hard pasture you get rid of the milk, and by flushing them you get a good crop of lambs. I have several times got a good crop of lambs from ewes tupped on a Barley Stubble, on these occasions they were put there because there was no other place for them.

A.E.M. I like to put ewes on a better pasture.

R.J. No.

W.G.S. No, ewes remain on grass, but some occasionally have a run over stubble.

W.M. No.

S.R.S. Keep them rather better on what green food there is on the farm, such as good grass or Bullock fed pastures, and fold on Rape, Cabbage, Kale, Mustard, etc., in order that the ewes may tup quickly and have a good crop of lambs.

J.D. When the ewes are lotted to the rams they are removed from the old pastures to after-math. This system is generally the result of a good crop of lambs.

No. 4 QUESTION.—*What system do you adopt with the rams? Do they run with the ewes or are they hand-ridden?*

T.H.H.	I prefer to hand-ride the rams.
C.H.	Run with the ewes.
W.A.T.	Before turning the rams out I have all the ewes numbered on each side, and their numbers and ear-tag numbers booked opposite. I then draft the ewes I want for certain rams and run them together. I have never hand-ridden any.
J.S.T.	Run most of the rams with the ewes, unless we are using show rams, then I usually hand-ride them.
W.R.F.	Rams run with the ewes.
W.T.G.	Both.
A.T.	Hand-ridden, using a good-looking teaser.
H.D.	The rams are turned with the ewes, except a few that have been shown, and they are hand-ridden.
R.P.C.	Generally hand-ridden, but some old tried rams are turned with ewes till all are once served, then hand-ridden to make certain.
C.C.	They run with the ewes at **night only**.
J.R.	Run with the ewes.

T.C.	When the rams are safe workers, I much prefer to run them with the ewes, but doubtful rams are hand-ridden for a time at least.
W.S.F.	Rams mostly run with the ewes, except in the case of heavy show sheep, the latter must be handled.
T.J.O.	The rams are always run with the ewes, I colour the rams red for 17 days, and then change them to black, in order to see if they are stopping their ewes, usually a ram will cover most of his ewes in the 17 days, and care has to be taken to notice if he is blacking any already marked with red. Any that are both redded and blacked I put to another ram.
A.E.M.	The bulk of ewes I hand-ride on account of having a large number of ewes in one field.
R.J.	The rams run with the ewes. The best of the ewes are taken off the hill and put to the stud rams in the field for tup lambs, the ordinary ewes are tupped on the hills.
W.G.S.	Rams run with ewes in the field occasionally with a particular ram, and very few are hand-ridden.
W.M.	Rams run with ewes.
S.R.S.	Run with the rams, divided into lots of from 20 to 30 ewes for unproved ram lambs and from lots of 50 to 80 to older rams that have been proved to get good reliable stock.
J.D.	The rams run with the ewes with the exception of a fed sheep and show sheep, which is worked inside.

No. 5 QUESTION.—*What is the average number a ram will effectually serve? (1) in the field; (2) hand-ridden; and at what age do you consider a ram gets the best stock?*

T.H.H.	If hand-ridden a ram will serve up to 100. If turned with the ewes 40 to 50. I prefer a shearling ram.
C.H.	(1) 80 ewes easily. (2) I never use rams in this fashion. Lambs, shearlings, and 2-shears, are the best ages.
W.A.T.	I generally put 50 ewes to a shearling or older ram, 20 to 25 to a ram lamb. I prefer a shearling or 2-shear for getting strong robust lambs, although I have had some good strong lambs from a lamb.
J.S.T.	I usually put about 60 to my best rams that are hand-ridden, and as I use a good many rams, some of the field rams have but few, according as I can match them. I should say yearlings and 2-shears get the most and best stock, but sometimes we get a sheep that is a good getter, and he is used for some years satisfactorily.
W.R.F.	I never allow more than 50 in a field. I prefer to use shearling rams.
W.T.G.	A ram will serve from 50 to 60 in the field, and up to 80 hand-ridden. Am inclined to think a ram gets strongest lambs when a 2-shear.
A.T.	50 in the field, 100 hand-ridden. Do not think there is any difference.
H.D.	A ram will serve 60 ewes in the field, and 100 ewes hand-ridden. A two-shear, I consider, gets the best stock.
R.P.C.	(1) 50 sufficient, (2) 80 average one time. Gets best as yearling or 2 year old.

C.C.	50 ewes in the field.
J.R.	(1) 70 (2) No experience.
T.C.	80 is sufficient hand-ridden; I have known 200 served successfully, but such a practice I do not advocate. At 2 years old.
W.S.F.	40 in field. Hand-ridden, at least double that number if desirable and necessary.
T.J.O.	(1) I usually put from 50 to 60 to a ram, but I think he could manage more and get them in lamb. (2) No experience.
A.E.M.	(1) A strong active ram will serve about 80 ewes very well, but I seldom wish to put so many to one ram. (2) I have never observed much difference as the result of the age of a ram, but I should say that a ram is at his best when a 2 year old.
R.J.	60. Of course I have seen an active ram serve over 100 ewes, but I consider 60 an average. At 1 and 2 years old.
W.G.S.	(1) 40 to 50 ewes in field. Have not noticed any marked difference in stock got by shearling or rather older rams. Have had very good stock from quite old rams.
W.M.	(1) 40. (2) I do not hand-ride any. From 2 to 4 years old.
S.R.S.	80 to 100. A shearling or 2-shear.
J.D.	A ram will serve 50 ewes effectually in the field. Rams running with the ewes do a deal of unnecessary serving. I have put a ram working him inside to from 80 to 100 ewes with good results. I consider a ram to get the best stock at two years old.

No. 6 QUESTION.—*If the ram is over-fat, or otherwise shews a disinclination to serve, what course do you adopt?*

T.H.H.	I give a dose or two of physic.
C.H.	My rams are never in that condition.
W.A.T.	If I have a ram over-fat, about a fortnight or 3 weeks before I want him I turn him out into a small field with a few cull ewes. I find that generally brings him to his work when I want him.
J.S.T.	I do not find the fattest rams the worst to deal with as a rule, but if I cannot get them to serve, turn them right away with some cull ewes and let them take their chance. Sometimes they will take to work then.
W.R.F.	Dorset Horns will always work.
W.T.G.	Give an occasional dose of Epsom Salts, plenty of exercise and short quantity of food, but good.
A.T.	Put him in an adjoining pen when a ram is rutting ewes.
H.D.	I reduce him gradually.
R.P.C.	Alter his condition. Only leave him with a ewe a few months at a time.

C.C.	Give an over-fat ram daily exercise for some weeks before he is turned with the ewes, and use him at night only. Another ram worked in the flock with a cloth, so that he cannot stock the ewes will generally make a slow ram serve, unless he is physically unfit.
J.R.	I stop hard feeding and give them as much gentle exercise as possible.
T.C.	Many schemes; often turn him loose with another ram a few days, which is often successful.
W.S.F.	Put him in a paddock alongside where the ewes are coming in season, give him hard feeding to bring the belly off him, and when a ewe is put in to him only let him take her once.
T.J.O.	Let him run about until he is fit. I never buy such animals.
A.E.M.	Give him a dose of physic.
R.J.	If a ram is over-fat I take the heavy feeding off him a month or six weeks before he is required for service.
W.G.S.	Try bringing in ewes to him and give oats.
W.M.	I should run an active ram with him for a few days.
S.R.S.	Give him a dose of Epsom Salts and get him lower in condition, but I never make my stock rams too fat.
J.D.	Reduce him in condition by giving a short allowance of food, but good what he gets, with plenty of exercise, also provoke him with a ram lamb securely aproned up. By such means I have got fat sheep to become very active.

No. 7 QUESTION.—*Should a ewe turn several times, what do you do to induce her to breed?*

T.H.H.	I find the best plan is to send her to the butcher.
C.H.	Change the ram.
W.A.T.	If a ewe turns several times I put a ram lamb on her. If that doesn't stop her nothing will.
J.S.T.	Nothing.
W.R.F.	Keep her in a low condition and let a ram lamb serve her.
W.T.G.	Nothing.
A.T.	Change the ram and finally try a lamb.
H.D.	Put a fresh ram to her.
R.P.C.	Serve her with a different ram each time.
C.C.	Nothing.
J.R.	Change the tups and clip or tie up her tail. Some cut a ewe's tail off with good results, as she is probably more easily served and the bleeding might also do good. (Cheviots have long tails.)
T.C.	Nothing; draft her.
W.S.F.	I have never tried the same with ewes as I have with cows for the purpose of inducing them to breed. If, with change of rams, generally finishing with a ram lamb, they do not breed the second year, I discard them. I do not, however, put away a shearling ewe that misses the first year.
T.J.O.	As explained in answer to Question 4, let her be twice tupped by the ram to which she is allotted, then give her a chance with another, and if she will not then breed, let her go fat for she has missed her vocation.
A.E.M.	I don't know what to do.
R.J.	Try another ram.
W.G.S.	
W.M.	Nothing.
S.R.S.	Try her with different rams, and if she does not breed two years in succession get rid of her.
J.D.	Give the ewe a dose of Epsom Salts and Sulphur; take her inside for several mornings, give a small compliment of Linseed Cake and Corn, with a little "Collosian Salt" (Manufactured by DAY, SON & HEWITT,) sprinkled over it, which has a good effect.

No. 8 QUESTION.—*If a valuable ewe you do not wish to discard has proved barren two years in succession, what is the best way to treat her?*

T.H.H.	Get rid of her.
C.H.	If rams have had a good chance for two years it is no use continuing further trials.
W.A.T.	After a ewe has proved barren 2 years in succession, I get rid of her.
J.S.T.	Send her to the butcher.
W.R.F.	Same as No. 7.
W.T.G.	Always send her to the butcher.
A.T.	Send her to the butcher.
H.D.	After 2 years I should get rid of her.
R.P.C.	Have her in a low condition and change ram each service
C.C.	I have never bred from one barren two years in succession.
J.R.	Had very little trouble with this.
T.C.	Sell her.
W.S.F.	As far as my experience goes the case is hopeless.
T.J.O.	I once had a ewe from which I particularly wished to breed, and for two years she would not breed, but did so at the third year; I did not treat her in any particular way.
A.E.M.	I should say it was a hopeless case. The best treatment, however, I think would be to feed her on hay and water for some time before putting to the ram.
R.J.	I am afraid she is hopeless to breed from, so it is better to sell her.
W.G.S.	
W.M.	Sell her to kill.
S.R.S.	Sell her.
J.D	A hopeless case. I never tried No. 7 treatment in such cases. It often happens that a ewe becomes so heavy and protruding in the rump that no ram can serve her. I give such to the butcher.

No. 9. QUESTION.—*What is your usual way of keeping the flock from date of service to within a few days of lambing?*

T.H.H. Run them on the pastures, later on give a few roots with chaffed oat sheaves.

C.H. No change of grazing; Show sheep only getting hand feeding.

W.A.T. After the ewes are all served and the rams taken out, the flock is divided; theaves by themselves, the ewes about 60 in a lot, and run over the pastures and changed as frequently as possible. About 3 weeks before lambing commences they are drafted, according to their mark, and put on hay chaff, and ½ lb. Dec. cotton cake, and a few oats per ewe allowed per day. About a week before lambing they go on turnips or kale at night. I never like my ewes to have a lot of turnips before lambing.

J.S.T. In the pastures, but I don't think it a good plan.

W.R.F. Run on the pastures until September, when they go on cabbage, with a good supply of clover hay, the pastures being left for lambs' grass.

W.T.G. Let them run the pastures till November, when they get a little hay or chaff, and a few roots, if any to spare for them, till lambing time.

A.T. Run in the meadows, getting a few roots and a little hay.

H.D. On grass up to December, then I put them on turnips, and keep them there until about 3 weeks before they commence lambing, and then they go on grass. All the time they are on turnips they get cut hay, clover, and corn, and a little cake.

R.P.C. Do them better as time goes on up to lambing. They run on meadow and have hay, *ad lib*, corn, and chaff, according to their condition, but no roots. I am a firm believer in allowing in-lamb ewes plenty of dry food and only a moderate quantity of watery food, as turnips, &c.

C.C. They run on the stubbles and Down by day, and fold on the land intended for wheat (usually turnips) at night, but the ewe lambs have the turnips first, before the old ewes, the 2-teeth ewes getting a small fold of turnips to themselves. The turnips are cleared up in the morning before the ewes go, but after Nov. 15th, the ewes get hay or chaff once a day, and from Dec. 1st, twice per day, and fold on stubble or dry, clean arable. The young ewes get about a half-hour's eating turnips in the morning, the older ewes go to the Down for about 4 or 5 hours per day until they drop their lambs.

J.R. (1) Generally stock on the hill Summer and Winter. If severely stormed, *i.e.*, if the snow is so deep or so hard that they cannot reach the ground, they get hay, about 1 lb. each, laid on the snow, but they only get fed when they would starve without it. (2) Those I am forcing for Show get whatever they will eat, but I find, when so forced, they are apt to have dead lambs.

No. 9 QUESTION.—*Continued.*

T.C. No fixed method; all depends upon the amount of Winter feed. Some turnips, others grass the weakest, artificial; others none.

W.S.F. According to weather. In frost and snow they get a limited quantity of turnips and hay, and if weather becomes very severe, about 1lb. of hand feeding in addition. In open weather the ewes require very little feeding, as the grass is kept clean and fresh for them in Winter. As lambing time approaches, a liberal, but not large, feed is given, so that they may come to lamb with a full show of milk, but the whole system and management during the early Spring months depends on the weather.

T.J.O. Run on grass, with swede tops, in the Autumn; then in Winter, chopped straw and crushed oats, and hay in addition in a storm. If roots can be spared, we give them towards Spring, but always keep some mangels for the ewes, whatever else has to go without.

A.E.M. I run them on the pastures and draw them a few roots in the Winter, and hay if the grass gets too bare. If the ewes are low, or the weather very bad, give them some trough food.

R.J. They go on their usual pastures, except the ones kept for showing. In snow-storms they are fed with hay in the hills.

W.G.S. As long as grass lasts, ewes only get this. Then, according to weather, we begin laying down cabbage or turnips on grass. About December, the ewes generally go into the turnip field to eat off turnips on the ground. If possible, they run off on to an adjoining grass field, being on turnips for only a few hours daily. They always get hay or straw in packs. If there be much snow they eat a large quantity of hay. At lambing time, sometimes a fortnight before, they begin to get a little oats, dried grains and bran, or other mixed box-feeding. After lambing the ewes and lambs are run on grass with turnips laid down. As soon as young grass grows, as many as possible are put on it, especially those with twin lambs, but I do not like putting them too many in a field. They are put out from lambing pens, if weather be fairly good, in two or three days; but straw shelters are put up in the fields.

W.M. On grass.

S.R.S. For the first two months or so as stated in answer to Question No. 3, then put together and folded on cabbages, and in the day time running on the stubbles, heath, and grass land, and later on, folded on white turnips, running out as before. About a month before lambing, a mixture of linseed cake, crushed oats and bran, about ½ lb. per head, mixed with cut hay and straw chaff is given. If turnips are short, a few mangels are allowed as well, about 1 ton to 250 ewes per day.

J.D. The flock has the run of the pastures as long as the grass lasts. When stormy weather sets in, plenty racks are placed in sheltered places, and a liberal allowance of clover hay given daily, until within a week of lambing.

No. 10 QUESTION.—*Does your Shepherd get anything extra in the lambing season to induce him to do his utmost, such as so much per score of lambs reared and alive at weaning time, or a bounty if he only loses two per cent. of the ewes in lambing?*

T.H.H	Shepherd gets his food during lambing time, but no inducement to do his utmost. I should not keep him if I thought he required anything of the sort.
C.H.	Nothing. My Shepherds are trustworthy and always do their best.
W.A.T	My Shepherd gets 6d. per lamb over number of lambs to every ewe put to the ram. I find this plan the best. I have tried one or two others. This makes him very careful of the weak lambs.
J.S.T.	So much per score for all lambs alive on June 1st.
W.R.F.	A penny for every lamb weaned and a shilling for every lamb reared over the number of ewes put to ram, half-a-crown for every ram lamb sold, and a pound extra for lambing. I seldom lose a ewe in lambing.
W.T.G.	Yes, extra pay.
A.T.	6d. per lamb living on 1st May.
H.D.	My Shepherd gets so much a lamb.
R.P.C.	Shepherds have 1s. per lamb for all lambs over one to each ewe on March 25th. 2s. 6d. each ewe lost is deducted.
C.C.	Yes, he is paid so much per head for every lamb bred to the number of ewes put to the ram, and eight times as much for every lamb alive on May 1st, above the number of ewes put to ram.

J.R.	No, some of them have stock wages, *i.e.*, 50 or 60 of his sheep go with mine, and that, with the keep of two cows and a free house, garden and potatoes, constitutes his wage. We think our men need no inducement to make them do their duty. They are often assisted by a "lambing" man—a loose hand engaged for a month to help the regular Shepherd. He gets £6 for the month and his meat, if a known good man, as good men are, of course, bad to get hold of at that time, when so many are wanted.
T.C.	No.
W.S.F.	My Shepherds have always got money for all. I do not think it fair that a working man should suffer in case of deaths and epidemics, through no fault of his own. Moreover, I have always considered that my men have done their best without any thought of bounty or commissions.
T.J.O.	No special arrangement as to pay in lambing time.
A.E.M.	I have been in the habit of giving something on every lamb above the number of ewes put to the ram.
R.J.	No.
W.G.S.	Nothing extra, but some assistance given. Shepherds are always very careful and willing.
W.M.	Yes; he gets 6d. per lamb above number of ewes put to the ram.
S.R.S.	6d. a lamb alive 2nd week in July, and 5s. per head for all ram lambs making over a certain figure.
J.D.	Not the custom here.

No. 11 QUESTION.—*What is your opinion as to the selection of sires? That is to say, which is most successful—line breeding, a certain amount of similarity of blood, or decidedly fresh?*

T.H.H. For Show-yard purposes I should say line breeding, with a small dash of fresh blood sometimes.

C.H. Line breeding.

W.A.T. I have no hard and fast line for selecting sires. I pay no attention to line breeding. I like good blood certainly, the very best, but he must also be a good sheep for me. There is an old saying—"That like gets like"; in my opinion, this applies to sheep more so than any other animal on the farm. When I have selected a sire I use him on a few ewes of different strains, so as to see by his lambs which strain of blood will suit him best. I find a marked difference in the strains suitable for sires, and flocks could be much improved by this treatment.

J.S.T. I think a sheep from a good flock, sired by one of my own bred sheep, a better change than a violent cross from a strange flock.

W.R.F. A certain amount of similarity of blood.

W.T.G. I do not go in for line breeding but like to get as much fresh blood as I can. When putting the ewes to the ram, I have every ewe go under my eye, and then mate her to the ram that is most likely to correct any faults in her.

A.T. A certain amount of similarity of blood.

H.D. Line breeding to a great extent to get type. A change of blood is desirable at times.

R.P.C. Line breeding, taking care not to get too close. An occasional change must be made.

C.C. I like fresh blood, as it improves the breed and constitution of the lambs, but my sires (not home bred) are generally selected from a few of the oldest and best flocks, as I am afraid of getting lambs not true to type from a cross from a new flock, and as the owner of the oldest flocks do very much as I do, it nearly amounts to line breeding spread over a few flocks.

J.R. Line bred sires are undoubtedly more impressive, and for improving an under-bred stock are invaluable, but after a time very much in-bred flocks probably lose a little size and bone.

T.C. A certain amount of similarity of blood. Violent out-crosses are to be avoided.

W.S.F. This is a wide question. My experience has been that line breeding in sheep is not desirable, although I have been fortunate in this with cattle. Similarity of blood is the safest and best in an established flock, but no close affinities. Decidedly fresh blood is a dangerous experiment and could not be safely practised amongst carefully bred sheep. During the 40 years I have bred Border Leicesters I have tried many experiments, and the least successful has been violent crossing. In fact, to blend the blood of two animals entirely different in type, although called by the same name and entered in the same Flock Book, amounts to almost producing crosses in the first instance, and disappointment in the following generations.

T.J.O. An in-and-in bred animal is best for the purchaser or user, and an animal, the produce of parents not at all related is best for the seller; in the former case he gets better than he looks, and in the latter he looks better than he may get. I like to have my sheep all nearly related, and when a new ram is introduced into the flock, use him in turn to every ewe, so many each year. If he has some specially good points, I have sometimes used him to any grand-daughters which may be deficient in those points. Too much in-breeding seems to cause loss of constitution, but when the ewes shewing this want of constitution are bred from, their produce is quite strong and vigorous, when put to a ram quite unrelated to them. In-breeding is necessary to produce prepotency, but out-crossing is occasionally necessary in order to produce or maintain constitution.

A.E.M. I like a similarity of blood as a rule, as I think there is no certainty in breeding with continual change of blood, but no rule would make me reject a really good animal if well bred.

R.J. I think a certain similarity of blood best, but fresh blood is at times imperative to keep up the strength of your flock.

W.G.S. Probably line-breeding; but the great essential is good shape and careful mating.

W.M. Line-breeding.

S.R.S. Line-breeding is best, or a similarity of blood.

J.D. Line-breeding to a certain extent.

No. 12 QUESTION.—*What artificial food do you use, and how much do you give the ewes and lambs, and do you make any difference between the singles and twins?*

T.H.H. I use linseed cake, maize, white peas, bran, oats, malt, etc., mixed with chaffed oats, sheaves, and hay. I allow the sheep to judge for themselves how much they require, as I think they are more likely to know what they require than I am.

C.H. Nothing, but Show ewes and lambs get hand feeding, and never more than 1 lb. daily to each ewe and lamb.

W.A.T. My ewes and lambs get rolled oats, Dec. cotton cake, and Bibby cake (mixed); the twins 1¼ lbs., singles, ¾ lbs. each per diem.

J.S.T. We don't usually give corn to the ewes with single lambs in our pastures, but the doubles get about a quart of oats per day until the grass grows.

W.R.F. Twin ewes get 2 lbs. each day, oats and cotton cake. Ewes with single lambs, 1 lb. per day, oats and cotton cake. The lambs are given as soon as they can eat, a mixture of oats, bran, and linseed cake, and are finished off with beans or peas and linseed cake. They are given as much as they will eat twice a day.

W.T.G. Linseed and cotton cake, and sometimes ground cotton seed, which is a good thing for milk, but wants to be used sparingly. Ewes with twins have a more liberal allowance than those with singles.

A.T. Linseed cake, oats, and bran. The twins get the best keep.

H.D. A mixture of linseed cake and oats. The twin lambs are all kept to themselves, and have a little artificial food as soon as they will eat it.

R.P.C. Mixed artificial food. Linseed and cotton cake, bran and oats. All ewes half a pound, some more, according to condition. Ewes with doubles have more than those with singles.

C.C. Crushed grains and cake; ½ lb. each to the ewes with singles, and 1 lb. each to those with twins.

J.R.	No artificials on the hills. When there are a few twins, any there are, are put into the best grass fields available.
T.C.	A mixture of linseed cake and corn, oats I use freely. Single lambs, except the tup lambs, have no artificial food during the Summer, after they get six weeks old or so. Ewes, with pairs, 1 lb. a day; lambs also help themselves in a feeder.
W.S.F.	In the early Spring months, before grass comes, the ewes with lambs receive about 1½ lbs. of hand feeding daily, besides turnips and hay. The feeding generally consists of grain of any kind that may be cheapest and most plentiful about the farm. If wheat is used, it is mixed with barley or oats, and the feed is half and half grain and linseed cake. I have also found a good supply of Brewer's grains, advantageous in a hard Spring for a month before grass. No difference is made between singles and twins, except that the former gets the best grass. No artificial food is given to ewes or lambs during Summer.
T.J.O.	Linseed and cotton cake and Waterloo is particularly good for lambs. No difference.
A.E.M.	The artificial food I use depends upon what I happen to have by me. I give the twins the best pastures, and I like to dock the corn off the ewes with single lambs very soon.
R.J.	No artificial food is used except for the show ewes and lambs.
W.G.S.	Oats, dried grains, bran, maize, locusts, one or two mixed. Ewes with twins get more, and get it for much longer, as a rule.
W.M.	I give the twin lambs Cake.
S.R.S.	½ lb. of mixed linseed cake, crushed oats and bran, per head for the ewes about a month before lambing. After lambing when suckling, 1 lb. per head, or more for ewes with twins.
J.D.	A mixture of linseed cake, bruised oats and bran. Ewes having twins are allowed 1 lb. to 1½ lbs. daily. Singles don't require trough feeding; they do very well on turnips or mangels, and sweet hay.

No. 13 QUESTION.—*When do you castrate the ram lambs not considered good enough for stock purposes?*

T.H.H.	I don't castrate any lambs. Any not good enough for breeding I sell fat in Feb. and March.
C.H.	June.
W.A.T.	I castrate the cull ram lambs about Easter time if the weather is right.
J.S.T.	Don't castrate any.
W.R.F.	They are drawn when about ten days old.
W.T.G.	Don't castrate any.
A.T.	Don't castrate any.
H.D.	The smallest and worst ram lambs are castrated about five weeks after birth, and another portion in October.
R.P.C.	Castrate some in Autumn, others are drafted to butcher about February or March in the following year.
C.C.	About May 20th.
J.R.	End of May.
T.C.	In the Autumn when the weather is suitable.

No. 13 QUESTION.—*Continued.*

W.S.F. Unfortunately for the reputation of our breed, no ram lambs are castrated. Every one is sold as a ram for breeding purposes. A great many small Highland farmers require rams and they will not give a fair ram price, consequently the inferior rams are kept for this purpose, and generally bring 30s. or 40s. more than they would do for mutton. The custom is, however, a mistake, and it would be in the interests of our breed to cull the ram lambs.

T.J.O. In November, as by then they are showing their shape.

A.E.M. I never castrate any lambs.

R.J. In the end of May.

W.G.S. About May, but we generally keep most as rams and sell defective ones for fat market during their first Winter.

W.M. When they are about a fortnight old.

S.R.S. At time of tailing, about a fortnight old, all lambs not of good color and at all rough or hairy, are castrated, and any others that turn out disappointing are sold as fat lambs.

J.D. All the lambs are docked at about 5 weeks old, and the general run of the ram lambs are castrated at that age, but a good number more than what is required for stock purposes are run until September. A selection is then made, and the discarded ones are castrated by claming with medicine—a safe system, without the loss of blood.

No. 14 QUESTION.—*When do you wean the lambs?*

T.H.H.	About middle of July.
C.H.	August.
W.A.T.	When from 13 to 15 weeks old; depends somewhat on the keep for them and the ewes.
J.S.T.	Soon after shearing the ewes, say the beginning of June.
W.R.F.	Ewe lambs in March. Wether lambs are sold from their mothers, fat, when about 10 weeks old. Ram lambs as soon as they begin to ride the ewes.
W.T.G.	At about 4 months old.
A.T.	Depends on the clover and keep generally. If short, first week in June; if plentiful, July.
H.D.	About July.
R.P.C.	At about 3 months old.
C.C.	About June 1st.
J.R.	August. I don't wean those ram lambs I am going to keep, but let them follow their mothers. These give over sucking in September or October.
T.C.	In July and August.
W.S.F.	Early in August.
T.J.O.	Early in August.
A.E.M.	As a rule about the beginning of June, but the time varies a little according to circumstances.
R.J.	At the end of July.
W.G.S.	About first week of August.
W.M.	July.
S.R.S.	4 to 4½ months of age.
J.D.	1st July.

No. 15 **QUESTION.**—*After weaning, how are the ram, ewe, and wether lambs kept? Please state briefly usual treatment until, say Michælmas.*

T.H.H. I like to keep a pasture clear of sheep for some time to wean lambs upon, and to get them on maiden seeds, thousand headed kale, or early turnips, as soon as possible.

C.H. The ewe and wether lambs, after retaining what is necessary for stock purposes, are sold. The ram lambs, except those needed for stock and for selling as shearlings, are all sold in September and October. Those retained are pastured on young grass until they are housed for feeding purposes.

W.A.T. At weaning time the ram lambs are put on vetches or ground seed, and have cut mangels; the wether lambs follow on behind to clear up and have a strip of fresh at the side; the ewe lambs run loose on the young pastures, or if I want to do the field well pen them over it regularly, which is probably the best way for the field, otherwise they will manure over part of the field at the cost of the other part. They have a little cake and rolled oats; as soon as the latter-math clovers are ready they are penned over them, and still have their cake and oats.

J.S.T. Ewe lambs in the pastures; ram lambs in the fields that have been mowed, and they get a little cake or corn about August.

W.R.F. Ram lambs on trifolium, with cut mangels, linseed cake, and old beans. Ewe lambs on young grasses, trifolium, and run on the pastures. Give them as much change as possible.

W.T.G. After weaning, the ram lambs are separated from the ewe lambs, and the ram lambs get the run of the best pastures, such as sanfoin, clover, and aftermath; vetches are grown for them, turnips as soon as I can get them.

A.T. The lambs are put in the clover, and have a little corn, a few mangels and cabbage as soon as we can spare them. Directly harvest is over, I put them on the young seeds until the white turnips are ready.

H.D. The ram lambs run about on the best land procurable, such as clover, eddish, rape, tares, and then on turnips. The great thing is to get them on Turnips early. The ewe and wether lambs are treated just the same. Change of pasture is a great thing.

R.P.C. The ewe and ram lambs are separated, and each divided into two lots. Wether lambs run with the former. The lambs are put upon the best green crop available, vetches for preference, then clover, rape, kale, cabbages, early turnips, &c., as they come in, but are allowed to run on the pastures by day for several hours. For a time, mangels are given in troughs. Mixed artificial food, commencing with 2 ozs. each, and increasing it by an ounce a month, up to 6 months, not afterwards.

C.C. Ram lambs get a fold each of vetches and sanfoin per day until July, then go on cabbage and rape until the ram tails, with from one to 1½ lbs. of mixed corn and cake. Wether lambs either on old seeds or vetches until July, then on rape until Michælmas, with 1 lb. of mixed corn and cake. Ewe lambs the same, except that they have no cake, unless green keep is short, then not more than ½ lb. per head per diem.

No. 15 QUESTION.—*Continued.*

J.R. See preceding for ewe lambs. Wether lambs are sold in August.

T.C. Ram lambs are done as well as we know how; ewe lambs have no artificial food if they are healthy; plenty of change of pasture.

W.S F. After weaning, the lambs all go together until the rams begin to chase—they are safe together until the end of October. They are put on fresh grass, generally after hay, and receive about ½ lb. each of oats and linseed cake, mixed. This is varied with Indian corn or peas. When the ewes and rams are separated, the latter are gradually put on cabbages or turnips, and so carried on all Winter; generally on the turnip land in dry weather, and the artificial is gradually increased to 1 lb. or 1½ lbs. The ewe lambs are left on grass land most of the Winter, and get some turnips laid down to them in early Spring, but no artificial, unless during hard weather. When turnips are plentiful, the ewe lambs are folded on the turnip land, like ordinary feeding sheep, but do not get artificial.

T.J.O. After weaning all the lambs, ram and ewe, they are put on fresh pasture, that is, pasture on which no sheep have been during Summer. If the pasture is not good, I give Waterloo cake. I prefer fog, and generally take Cottagers fog in the neighbourhood. I then put the ram lambs to cut swedes, the ewes and wethers to soft turnips, both lots being fed as fat sheep. The rams get cake twice a day; the ewes and wethers, once.

A.E.M. I run the lambs on the seeds, and if possible, fresh seeds, and draw cabbage or kale as soon as it is ready.

R.J. The ram lambs are pastured on fogs; the ewe lambs on the hills; and the wether lambs are sold in August, and not weaned till that.

W.G.S. On grass, as many as possible on forage, (clover, after hay has been cut,) then on young grass stubbles. Ram and wether lambs get a little artificial feeding, and as grass fails all get turnips or cabbage laid down.

W.M. Put them on second cut clover and give them a ½ pint corn.

S.R.S. Ram lambs on clover, white for preference, with tares and sanfoin given in racks, a few mangels thrown out, not cut and fed in troughs, as they are very likely to cause stoppage of water. In June, cabbages are ready and thrown out for them. These are kept in like this until time of sale in August and September, with the addition of early turnips and kohl rabi, cut and fed in troughs. A few are put in very early and are ready for this purpose in July. About 1½ lbs. per head of linseed cake, lamb food, etc. Ewe and wether lambs are kept on mixed layers, trifolium, etc., and vetches, May, June, and July, with mangels thrown out. August, folded on rape, mustard, or cabbages, running out on 2nd cross clover, etc., and later on, on the stubbles. The latter part of this month the wethers are put on cut kohl rabi, with clover hay, and later on, cut sweeds, and all sold fat before Christmas. The ewes are kept on similar food, only they cut for themselves.

J.D. Ram lambs run on after math, with an allowance of cake and corn. Ewe and wether lambs run on grass alone until October, when they are given some trough feeding and taught to eat turnips.

No. 16 QUESTION.—*Do you dip lambs? When?*

T.H.H.	I dip both ewes and lambs a week or 10 days after the ewes are clipped, and again later in Autumn.
C.H.	Yes, ewes and lambs, 10 days after clipping in July, and again in October.
W.A.T.	I dip the lambs when weaned, and again in August when the ewes are dipped.
J.S.T.	Yes, as soon as the ewes are shorn, and again later.
W.R.F.	Yes, in September.
W.T.G.	Yes, in June, and again in August or September.
A.T.	Yes, Cooper's Dip. Middle of May.
H.D.	Yes, three times. First, before the ewes are clipped; then about a fortnight after they are clipped; again in August.
R.P.C.	Yes, when weaned; again in about 2 months; always late in the Autumn. The latter is the most important, as it saves loss in condition and in life, none getting cast in Spring.
C.C.	Yes, directly after they are weaned.
J.R.	Dip all my stock twice in October, or when flies are bad in July, and again in October or the Spring.
T.C.	Yes, after the ewes are shorn; again in October.
W.S.F.	When the ewes are clipped, and a month after weaning.
T.J.O.	After shearing the ewes, and if necessary, in September.
A.E.M.	I always dip my lambs about June.
R.J.	September or beginning of October.
W.G.S.	Lambs are dipped soon after weaning.
W.M.	Yes, July.
S.R.S.	Yes, always with Cooper's Dip, in June or July; again in September if flies are troublesome.
J.D.	All lambs are dipped in July.

No. 17 QUESTION.—*Do you shear the lambs? If so, when, and your reasons for so doing.*

T.H.H.	Don't shear the lambs.
C.H.	No.
W.A.T.	I shear my ewe lambs in June, and the late ram lambs that come round for shearlings, as I think they grow better and faster, especially in hot Summers.
J.S.T.	Shear the ram lambs in June. They do not get flied so much, grow and do better, and Winter better on our dirty land.
W.R.F.	Yes, in June. They do much better, and are not so much troubled with the fly.
W.T.G.	Yes, only a few of the early ones, as I think they grow faster.
A.T.	Yes, in June. We consider they grow better, especially in the following Spring.
H.D.	No, I do not shear lambs.
R.P.C.	No.
C.C.	Sometimes the wether lambs, particularly if I intend fatting them right out for the butcher. Shorn lambs thrive better than those in their wool in hot, dry summers, when kept in fattening conditions, and are not troubled with the fly.
J.R.	No.
T.C.	No.
W.S.F.	No lambs are shorn.
T.J.O.	No.
A.E.M.	I always shear my lambs. I do so because I think they keep freer from the maggot fly.
R.J.	No.
W.G.S.	No.
W.M.	Yes, June. My reasons—think do best.
S.R.S.	No.
J.D.	I only shear the ram lambs. They have the use of a sheep house, and can run out and in at will. When the weather is wet they do better in the houses without the wool, being more comfortable than in their wool loaded with rain water.

No. 18 QUESTION.—*Are your lambs subject to Husk or Hoose, and other troubles, such as worms in the fourth stomach? What is the best course to adopt as a preventive?*

T.H.H. Lambs are subject to Hoose or Husk. I find the best remedy is a mixture I get from Mr. Holgate, Chemist, Nottingham. Sometimes I use Linseed Oil and Turpentine.

C.H. No.

W.A.T. I never get any trouble with Husk or Hoose. In my opinion the best preventive is keeping the lambs well during the Summer and Autumn, by allowing them a little cake and oats, and penning them at night as soon as August comes in, and increase their trough allowance as soon as the nights get longer.

J.S.T. No.

W.R.F. No, I know nothing of either.

W.T.G. Yes, to a certain extent. I drench them twice directly after weaning, about four days apart, fasting them the previous night, with some medicine that I get from my Veterinary Surgeon.

A.T. Have had worms in the fourth stomach, and do not know any cure. 'Lysol (a German medicine,) is supposed to be a cure but it kills the lambs as well. Keep moving them about and get them in the arable land as soon as possible. No doubt the disease arises from the lambs being kept too long in the old and tainted pasture.

H.D. Very little Husk or Hoose is seen or felt amongst lambs that are well looked after. The most troublesome are lambs that have been neglected.

R.P.C.	They would be if not prevented by drenching as on page 34 of this book. Generally the home made preparation is used, with salt and a little cordial and tonic.
C.C.	No. Pettifer's Herbal Tonic has a good reputation for curing this disease.
J.R.	No.
T.C.	Yes. I drench them 3 or 4 times as a preventive, and since I have adopted this—no loss.
W.S.F.	In our part of the country Husk or Hoose, or worms, are practically unknown: I have never been required to treat sheep for either. Our farms are dry and well drained and sheep are healthy.
T.J.O.	I am sometimes troubled with worm in the throat and dose the lambs with a tablespoonful of Turpentine and 4 spoonfuls of Linseed Oil, repeated thrice, fasting the night before. It takes a week to dose them, but cures them.
A.E.M.	I have had considerable loss from lung and stomach worms in the past. I consider the only preventive is to be careful not to put lambs on a pasture where they have been previous years. It is the safest way to keep them on the arable land.
R.J.	No.
W.G.S.	Not as a rule. I believe in giving all lambs Rock Salt as a preventive.
W.M.	In a bad season we are troubled with worms. Then I give them linseed oil and turpentine.
S.R.S.	No.
J.D.	I have none of the troubles mentioned in this question.

No. 19 QUESTION.—*Describe briefly the usual mode of keeping the young sheep through the Autumn, Winter, and Spring.*

T.H.H. I winter my young sheep on the turnips, with addition of plenty of good dry food.

C.H. Ewe lambs are pastured from middle of October till 1st April on grasses of better quality, and at a lower sea level (the lowest portion of this ground is 900 feet above sea level); after which they return to their native hill pastures.

W.A.T. In September mine go on cabbage, which generally last till after Xmas; then they go on Swedes till Spring; then young seeds till the vetches are ready, and have mangels, either whole or cut, this depending on the state of their mouths. This applies to rams only.

J.S.T. On turnips as soon as we can get some ready; then swedes and mangels. Get them on some rape, kale, or rye as soon as we can in the Spring, with plenty of mangels and cake and corn for the rams.

W.R.F. Run on clover hay in Autumn; foaled on early turnips, cut swedes, and clover hay in the Winter; water-meadow grass in the Spring.

W.T.G. Plenty of roots and hay, and the sheep that are feeding—plenty of artificial food. The stock ewe lambs, if the hay is of middling quality, give ¼lb. cotton cake daily, sometimes a little kibbled wheat.

A.T. Keep them on the roots, with a little cake and corn.

H.D. The young sheep run on the young clovers and grass lands in the Autumn, and keep changing them about. In Winter they are folded on the turnip lands, and have chopped hay and cake. In Spring they run on clovers. The great thing sheep want is a change of pasture.

R.P.C. When young sheep are put on turnips in the Autumn they remain there until Spring, are allowed as much good clover hay as they will eat and a liberal quantity of cut roots, with about 6 ozs. of the usual mixed artificial food daily. All through the season plenty of salt should be allowed, rock salt in the troughs, and a pound of common salt a day sprinkled on their trough food, to every sixty to seventy sheep, according to size.

C.C. I presume this refers to the ewe lambs. Fold on turnips, swedes, and kale, from September until May 1st; with straw chaff, and about ½lb. per head of malt culms and cake from Oct. 20th to May 1st, when the chaff and malt culms are generally discontinued, and about ½lb. per head per diem of cake given until they are shorn, May 20th. After this time the cake is stopped, except on draft ewes.

J.R. All my stock go on the hills Summer and Winter, except my show stock.

T.C. Change of feed all through, but Winter and Spring entirely on roots.

W.S.F. This question is answered in No. 17.

T.J.O. Rams are put to cut swedes, with as much hay as they will eat, and cake (linseed and cotton,) twice a-day, until the swedes are done. Then, if the old land grass is not ready, they go into a seed field for a few weeks, with cake as usual; after that into a feeding pasture, with cake. Rams can be made fatter on clover, but they do not stand work as well as when summered on old grass. Ewes and wethers are put to soft turnips in the early Winter, then to cut swedes and cake once a-day, about ½lb.; then to seeds; the ewes meant for breeding purposes being drawn out and summered on grass.

A.E.M. Of late years I have kept the young sheep principally on the previous year's seeds, and drawn them when cabbage or roots are about.

R.J. They are kept on the hills amongst the ewes, and get same treatment—hay in severe snowstorms and in bad Winters. Some of them are sent into the low country on to seeds or young grass.

W.G.S. In early Autumn they get turnips or grass. They generally eat whole turnips on the field for a time, with artificial feeding and hay. When they begin to lose their teeth, turnips are cut for them, and fed from boxes in the field; other feeding continued. This is continued until turnips are finished and grass grows again.

W.M. On roots in Autumn and Winter; on grass in Spring.

S.R.S. This I have done in answer to No. 15. Ewe lambs (hoggets) are folded, kept on swedes or white turnips, with about ½lb. per head of linseed cake and crushed oats, with pea straw or hay in racks. In the early Winter months and Spring, if turnips are short, a few cut mangels are given, with plenty of chaff.

J.D. The treatment of the young sheep is the same in Autumn and Winter months; turnips, and 1lb. of a mixture of linseed cake, oats, and bran, daily, until the middle of March, when all are turned on grass with anything else. Grass comes very early in this part of the country.

No. 20 QUESTION.—*When do you house the sheep intended for show?*

T.H.H.	I have given up housing sheep for show, as I consider it ruins them for anything but show purposes.
C.H.	Ram lambs are generally put into the house in November, and kept there until spring grasses arrive.
W.A.T.	The sheep intended for show are brought into a shed with yard, about the end of October.
J.S.T.	In October.
W.R.F.	In December.
W.T.G.	December, and sometimes not till January.
A.T.	First week in March.
H.D.	I house about three weeks before the shows.
R.P.C.	In February or March.
C.C.	As early in November as rough wet weather begins.
J.R.	November.
T.C.	Often not at all, except a short time before the shows commence.
W.S.F.	About New Year.
T.J.O.	It is not natural for sheep to be housed, and as sheep, to win prizes at Agricultural Shows, must be kept in an unnatural state, in order to get the necessary burden of fat, I decline to take part in the silly system.
A.E.M.	About January, unless the weather is very fine.
R.J.	In November.
W.G.S.	Show sheep housed about November.
W.M.	After they are shorn.
S.R.S.	At present I have never housed any sheep shown at the Summer shows. Those shown at Smithfield, in October.
J.D.	Sheep intended for show purposes are not actually housed until 1st March, and then given exercise twice a-day.

No. 21 QUESTION.—*Do you house the rams, other than those preparing for Shows?*

T.H.H.	The only sheep I house are weakly young lambs that I am afraid cannot stand the turnip field in Winter.
C.H.	Yes.
W.A.T.	I do not house any rams except those being prepared for shows.
J.S.T.	Not at all.
W.R.F.	No.
W.T.G.	No.
A.T.	No.
H.D.	No, not at all.
R.P.C.	In March as soon as shorn, but they run out through the day, except in bad weather, immediately after shearing.
C.C.	No.
J.R.	Some of the sale tups.
T.C.	No.
W.S.F.	No.
T.J.O.	If the rams I breed are expected to do their duty, it is poor preparation for them to be coddled up in a house in bad weather, and I wish to sell rams which will stand any weather, and be no worse for it. In my opinion, housing rams is utterly bad business, and borders close on dishonesty.
A.E.M.	I only house the rams preparing for show entirely; the others come in for shade in the Summer and have some green food inside.
R.J.	No.
W.G.S.	Other rams housed about January or February till perhaps May.
W.M.	No.
S.R.S.	Never.
J.D.	No, but have access to sheep house at will.

No. 22 QUESTION.—*When do you draft the ewes intended for sale?*

T.H.H.	At weaning time.
C.H.	First week in October.
W.A.T.	At shearing time.
J.S.T.	After their lambs are weaned, according to circumstances.
W.R.F.	In May.
W.T.G.	In June.
A.T.	June.
H.D.	In the Autumn.
R.P.C.	At weaning time.
C.C.	In June.
J.R.	October.
T.C.	After weaning time.
W.S.F.	Immediately after weaning time.
T.J.O.	After the lambs are weaned in August.
A.E.M.	Before shearing, and look them over again later on.
R.J.	At 5 years old.
W.G.S.	During Autumn months. Shropshire ewes need very little feeding before sale.
W.M.	September.
S.R.S.	July or August.
J.D.	The lambs are dipped in July.

No. 23 QUESTION.—*Do you consider a thatched, tiled, or slated building, the best adapted for a sheepcote?*

T.H.H.	Should say a thatched building is the best.
C.H.	Tile or slate.
W.A.T.	I prefer a thatched building for a sheepcote, although I use a slated one myself. I think the thatch cooler in Summer and warmer in Winter
J.S.T.	Certainly thatched, and facing the south.
W.R.F.	Tiled.
W.T.G.	Thatched.
A.T.	Undoubtedly thatched, although a slated or corrugated iron, lined with matchboard, looks cleaner, and is almost as good.
H.D.	Nothing is better than thatched buildings.
R.P.C.	Thatched.
C.C.	Thatched.
J.R.	I use corrugated iron roofs, if there is plenty of ventilation; they are the cheapest and quite satisfactory.
T.C.	Thatched for choice.
W.S.F.	Thatched for preference; slated next.
T.J.O.	In lambing time, I have pens made with hurdles, and thatched with straw for shelter for young lambs.
A.E.M.	No doubt thatched or a tiled roof is the best, but anything will do if the building is very lofty. A slated roof is bad, as it gets so hot.
R.J.	I use a slated roof, but I think a thatched roof would be preferable, as it would be cooler and more airy.
W.G.S.	I consider tiles a good roof.
W.M.	Thatched.
S.R.S.	Decidedly thatched.
J.D.	A sheepcote thatched with straw is the best.

No. 24 QUESTION.—*Kindly describe briefly your mode of treating the rams for sale, and the draft ewes during the late Spring and Summer until they are disposed of?*

T.H.H. Give them the best pasture I have and plenty of artificial food.

C.H. The rams for sale are fed on the lower pastures, and, in addition, get from 1½ to 2lbs. of hand feeding, daily, until sold in September or October.

W.A.T. The shearling rams, during Summer, are folded in vetches, and have cut mangels, with a few cabbages, until sold.

J.S.T. Rams have tares after the rye is gone, and mangels and cabbages as soon as ready. When cabbages are ready I don't care to give them mangels, for if they have mangels right up to the time of sale, we generally hear of more failures I think. Draft ewes are only kept in the ordinary way to be got out fat, but draft yearling ewes are put in the best pastures until they are sold, but no artificial food given them.

W.R.F. Rams are given cut roots, with green food; hay chaff, with linseed cake and oat beans, and are kept in the open field. Ewes get water-meadow grass, with cotton cake.

W.T.G. Rams run firstly on young seeds, afterwards on the best of the aftermath. Draft ewes run the pastures till fit for butcher.

A.T. Rams on a field having some mangels, cabbage, and corn. The draft ewes do not get any extra keep.

H.D. The rams run on young clover, and have vetches carted for them, and cabbage, etc.; the ewes run on clover.

R.P.C. Rams run out all day, and some of them night and day. They have liberal allowance of green food and clover hay if they will eat it, with half-a-pound of corn. Ewes run on meadow and have half-a-pound of corn.

C.C. Rams, which are nearly all lambs, described in No. 15. Draft ewes clear up the two folds behind the ram lambs, and get about ½lb. cake per head until sold if for stock in July or early in August, fat for butchers September or October.

J.R. Draft ewes get no special treatment. Sale tups are well fed in Winter on turnips, hay, corn, and cake. In Summer they get trough food on grass and cabbage if I have any.

T.C. No fixed treatment; all depends upon what feed we have at our disposal. Either tares or red clover, grazed with cabbage carted to them, is mostly the routine.

W.S.F. The rams, after coming off the turnips in early Spring, are put on good grass, with 1lb. of cake and corn, and clipped about 1st April. In July and August they get cut tares laid down in the field, and for the last month before the sale the artificial food is increased to 2lb. They are washed and dressed twice or three times during the Summer, the last washing and dressing taking place a week before the sale. The draft ewes or gimmers are drawn out in August, but they receive no extra treatment. They are washed and dressed and made ready for public or private sale, as the case may be. I generally sell the best part of my draft privately, some publicly, and the worst are put amongst the feeding sheep and sold to the butcher.

T.J.O. My system with rams for sale is to do them well in a natural manner, neither housing or bottling. Draft ewes are treated as wethers.

A.E.M. The show rams I keep in entirely, the others run on a grass field, but come in a shed in the day-time for shade, and have cabbage or other green food.

R.J. The rams are fed in a field with linseed cake and Indian corn (mixed,) and get tares and cabbage in August and September, until the sale at Hawick in September. The draft ewes are just grazed on the hills until the sales in beginning of October.

W.G.S. Rams for sale after swedes or mangels are finished, are run on grass, getting artificial feeding. As soon as we can have them ready, which in this district, is not until far on in Summer, they get tares until sold. If weather hot and flies bad, we bring them into house during the heat of the day.

W.M. On wurzel and cabbage.

S.R.S. As to rams, this I have answered in No. 15. Ewes kept well on clover layers hitched off and mangels thrown out. July and August, run out on second cut clover and folded on cabbage, rape, or tares.

J.D. Rams for sale are run on the grass, with a daily allowance of cake and corn. When within a fortnight of sale, they are kept dry by housing and fed on vetches and cabbage. Draft ewes fed on grass alone.

No. 25 QUESTION.—*What special green food do you grow for sheep?*

T.H.H.	I have of late years grown thousand-head kale, which has given me great satisfaction.
C.H.	None.
W.A.T.	Vetches, cabbages, and khol rabi.
J.S.T.	Tares principally, in succession, and rape and tares mixed.
W.R.F.	Trifolium mostly, tares and green peas.
W.T.G.	Vetches.
A.T.	Cabbage, mangels, vetches, and now I have 5 acres of sanfoin.
H.D.	Tares and cabbage, and red clover.
R.P.C.	Rye, vetches, rape, kale, cabbage, and lucerne.
C.C.	Rye, Winter barley, trifolium and mangels for Spring feed; vetches, rape, cabbage, and sanfoin, for Summer; rape, thousand-headed kale, turnips, swedes, for Autumn and Winter.
J.R.	Cabbage, tares, and turnips.
T.C.	Tares lucerne, and cabbage.
W.S.F.	Mainly tares, and cabbages.
T.J.O.	None.
A.E.M.	I prefer thousand-headed kale, and cut green clover during the Summer.
R.J.	Tares, cabbage, and turnips.
W.G.S.	Tares principally, and cabbage.
W.M.	Turnips and rape.
S.R.S.	In February, March, and April, thousand-headed kale, savoys, Italian rye grass, rye. May, trifolium; June, July, and August, vetches, Enfield market cabbages, sanfoin, white and red clovers, and mixed layers.
J.D.	Vetches and cabbage.

No. 26 QUESTION.—*What cabbage (if any) do you grow for the sheep, and at what period of the year do you plant?*

T.H.H.

C.H. None.

W.A.T. There is nothing I like so much for sheep as cabbage. I grow 10 or 12 acres every year. Webb's early sheep fold are the first I drill (end of March or early in April,) followed by Webb's early Drumhead and then the late Drumheads. I drill all my cabbages and single them out like swedes, only much further apart. I have grown them 42 lbs. weight. Drilled at different times from April to end of June, you can almost have cabbage all the year round. In my opinion it is the safest green food grown for sheep. I rarely ever lose a lamb on cabbage.

J.S.T. Enfield market cabbage. Set them in November.

W.R.F. Early Drumhead drilled in March, come to feed off early in September. Drilling is much cheaper than planting. I have grown as much as 75 tons per acre in this way.

W.T.G. Grow very little cabbage. Plant in October.

A.T. Enfield market, planted out as early in Spring as weather will permit.

H.D. Flockmaster and Enfield for early Spring, and Drumhead for later on. Plant them in the Autumn and Spring.

R.P.C. Drumhead and Enfield market. Spring and Autumn.

No. 26 QUESTION.—*Continued.*

C.C.	Wheeler's Imperial, planted in October and February, for June, July, and August feeding. Thousand-headed and shepherd's kale, planted from April to August, for feeding from September to April.
J.R.	Drumhead. In the Spring.
T.C.	Early Enfield, Offenham, Drumhead.
W.S.F.	I generally grow early and late Drumhead. They are planted in March, weather permitting, or as soon thereafter as possible. The cabbages are taken as soon as they are ready in Autumn, and this is done by a process of selecting the best ones, and this goes on all winter, after which the sheep are folded on the remainder.
T.J.O.	None.
A.E.M.	I grow kale principally, a few early cabbage, and some Drumheads for winter use. I sow or plant the bulk of the crop about the end of May or June. I plant some in early Spring.
R.J.	Plant in April.
W.G.S.	Cabbage planted as early as possible in Spring.
W.M.	Enfield and Drumhead, planted in Autumn and Spring.
S.R.S.	Kale and savoy, drilled June and July, for early Spring feed. Enfield market planted out September and October for feeding June and July. Enfield market and early Drumhead drilled in March and April for feeding August, September and October.
J.D.	Cettle's Reliance and Nonpareil, late variety. Drumhead—earlies, planted in September, second planting in April, and Drumhead in beginning of April.

No. 27 QUESTION.—*How do you manage with the motherless lambs, as some may be the offspring of ewes of which you had a high opinion?*

T.H.H.	I give the motherless lambs away as I don't consider they are worth the extra trouble.
C.H.	Twin on other ewes.
W.A.T.	Bring them up on cow's milk, unless I have a ewe that has lost her lamb.
J.S.T.	Always have a chance to put them to another ewe.
W.R.F.	Set them to a ewe whose lambs you do not value.
W.T.G.	Put them with another ewe as soon as possible.
A.T.	Rear them with cow's milk.
H.D.	Rear them with the bottle or put them to a foster mother.
R.P.C.	Put them on ewes that have lost their lambs or have only one, and which promise to be good milkers.
C.C.	Put some of them to ewes that have lost their own lambs. Place some (if young) to ewes that have just dropped a single *ewe* lamb, and make artificial twins, and if I have more than can be bred up by the ewes, I give them cow's milk until they can eat sufficient cake and other food and shift for themselves.

No. 27 QUESTION.—*Continued.*

J.R.	Set them on to ewes which have dead lambs.
T.C.	Put them to another ewe.
W.S F.	The motherless lambs are brought up on the bottle, and by Autumn they look as well as those nursed by dams. It entails a deal of trouble but the results are worth it.
T.J.O	If a ewe dies and leaves a lamb or lambs and there happens to be a ewe which has lost her lamb, we try to mother them by skinning the dead lamb and tying the skin on the living one. This is generally successful. If it is not, then there is no resource but the bottle and cow's milk.
A.E.M.	I give cow's milk, but I have never had much success with motherless lambs.
R.J	Put them on to ewes that have had dead lambs.
W.G.S.	Motherless lambs are hand fed from bottle if they cannot be put on to another ewe.
W.M.	Feed by hand.
S.R.S.	Always put them on to another ewe and specially marked.
J.D.	All lambs are ear-marked when a few days old, entered in Private Flock Book, and easily kept in sight.

No. 28 QUESTION.—*What is the best cure for foot-rot, and what is the surest preventive against it?*

T.H.H.	For foot-rot I use 3ozs. litharge of gold, 6ozs. verdigris, 3ozs. blue vitriol, 3ozs. burnt alum, to be powdered together and boiled over a slow fire, with 1½lbs. honey.
C.H.	Seldom troubled with foot-rot if feet are kept free from loose hoof. When sheep are attacked, the various foot-rot mixtures sold are the only cure.
W.A.T.	My shepherd mixes his own foot-rot mixture. We only get it when the ewes are in the lambing fold. The best preventive, in my opinion, is to have ewes penned every six weeks or 2 months, and have their feet pared. If all flocks were served in this manner we should soon hear less about foot-rot.
J.S.T.	We have a mixture of our own—consisting of I forget what,—no preventive, as it comes on our pastures in a wet time, but we separate and dress at once and have but little trouble.
W.R.F.	An active and good shepherd. Isolate the first sheep you see down with it.
W.T.G.	Cannot say.
A.T.	A careful shepherd.
H.D.	Catch them in time and keep dressing them.
R.P.C.	Ointment made by Thames Chemical Co., 61 and 62, Chancery Lane, London, and walking the sheep through a solution containing arsenic or sulphate of copper.

C.C. There are so many preparations that, if properly applied, will effect a cure, that I cannot name one as *the* best. Keeping them on dry healthy land, and occasionally passing them through a trough, in which there is a solution of blue vitriol, or some similar caustic, about 2 or 3 inches deep, to cover their hoofs; immediately dressing a sheep that shews foot rot, and isolating it until cured, and cutting any excessive hoof growth.

J.R. Troughing. Put them through a mixture of sulphuric acid and water, and pare the feet of any that require it.

T.C. A very old recipe of the family in my case. There is no preventive in wet seasons and long grass. If in arable, very little difficulty, and easily cured or kept in check.

W.S.F. A mixture of archangel tar, bluestone, and lard, in equal quantities, and boiled together, is as good as anything. There are, however, various simple and good remedies sold by various makers, and I cannot tell which is best. Violent remedies are to be avoided. Lard and tar, in my experience, make the best temporary waterproof for the sore part, and the sulphate of copper is sufficiently violent to cure. If foot-rot has got a hold, however, no remedy is good enough, without carefully paring to the bottom. With me a preventive is seldom required. Twice in my experience has foot-rot assumed an epidemic form in my flock, and my remedy was, as I got them sound, to remove the sheep to another farm. The arsenic trough is not a success with me; after it, the hoofs split and crack and become hard. House sheep, however, are frequently put through the trough containing a strong solution of carbolic. I have had no foot-rot for years, and this I attribute to the order that every lame sheep, from whatever cause, shall be instantly taken to hospital.

T.J.O. A clever man and a sharp knife. Any mixture in which vitriol is a component will cure it, but it must be properly applied. The only sure preventive is to have no sheep, but attention to single cases is the best palliative.

A.E.M. I think the best cure and preventive for foot-rot is Buttar's Arsenic Recipe, but for odd cases I use Hepworth's preparations.

R.J. Putting the sheep regularly through troughs in which is liquid vitriol and water. I consider Cuff's Powder and Learner's Dressing the best, when the sheep are turned and their feet pared.

W.G.S. Never troubled with real foot-rot. Knife used for bad feet. Constant watchfulness essential, but I have not found sheep on arable and rotation land subject to foot-rot.

W.M. I have not had much experience. Keep feet pared.

S.R.S. Seldom have it. Learner's Foot-rot Paste.

J.D. It is hard to say what is the best cure for foot-rot. There are so many cures now-a-days, and everyone claiming to be better than another. I have found out long ago that the best cure is a careful dressing of the hoof with a knife. After that a simple wash will do—such as powdered bluestone, dissolved in hot water; or sugar of lead and sulphate of zinc, dissolved in water. Of course, if proud flesh appears, it requires to be touched with Buyter of Antimony or Caustic. A good preventive is to run the sheep through a lotion of arsenic once a week, lotion in box or trough to be kept about 2 or 2½ inches deep to cover the hoof and no more.

No. 29 QUESTION.—*Do you wash your Show sheep before shearing?*

T.H.H.	Wash sheep before clipping.
C.H.	No.
W.A.T.	Not usually.
J.S.T.	No.
W.R.F.	No.
W.T.G.	No.
A.T.	No.
H.D.	Yes.
R.P.C.	No.
C.C.	No.
J.R.	No.
T.C.	Yes.
W.S.F.	No.
T.J.O.	I wash all sheep before shearing.
A.E.M.	I never wash any sheep.
R.J.	No.
W.G.S.	Show sheep not washed.
W.M.	Yes.
S.R.S.	No.
J.D.	Yes.

No. 30 QUESTION.—*What system of ear-marking do you adopt?*

T.H.H.	No particular system.
C.H.	Lug mark with knife or nippers made to fit.
W.A.T.	My system of ear marking is, at lambing time to ear ring all the lambs every morning, and enter in a book kept at the sheepcote, and when the lambing is over take the book home and copy off in the Register.
J.S.T.	Ear tags.
W.R.F.	Ear punch.
W.T.G.	Ear tags.
A.T.	The lambs are ear-marked at birth, and when they are put into the flock as yearlings, a tag is placed in the ear.
H.D.	Snips in the ears and ear numbers.
R.P.C.	Ear tags.
C.C.	The small metal tablet, with two holes through the ear to keep it in position, which is the official ear mark of the Hampshire Down Breeders' Association.

No. 30 QUESTION.—*Continued.*

J.R.	On the hills each shepherd's flock has a standing mark, say for one, a piece out of the back of the near ear, and in addition, an age mark, say a piece out of the fore part of the ear for one age. Those by a special tup have generally another distinctive ear mark given them. I don't tattoo them. Amongst the stud flock we know each one, and to help my memory I keep a private flock book.
T.C.	Certain bits cut out of ear and holes to denote the sire. Tattoo flock book number, ear ribbon clip on rams with number and name of breeder.
W.S.F.	We have just started a Border Leicester Book and we have adopted the tattooing system.
T.J.O.	The ewes have ribbon ear marks numbered, and the lambs are marked according to the system explained by you in a pamphlet published some years ago (the first edition of this work.) A record is kept of all.
A.E.M.	I make nicks in the ears to denote numbers.
R.J.	I use the usual ear marking instruments for nipping a small piece out of the ear.
W.G.S.	Snips from the ear and holes in the ear.
W.M.	Tattooing.
S.R.S.	Tattoo press.
J.D.	Ribbon ear markers, but I mean to use Mansell's Improved Markers from this forward.

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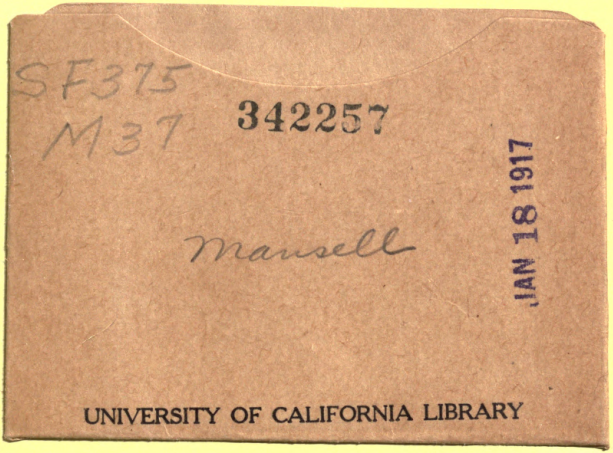
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