

and 12 feet deep, with paddock which is the p. The doors to the ed by means of rope passage. Steel fronts eading from each pen oughs and partitions each pen is a sleeping dge but covered with em. It is generally rable to concrete for

ioned are for growing separating these from it is not considered the same quarters as there are two pens, arrowing pens. They e boiler room, and as er side these pens will en in zero weather. ight pens for sows and mpanying illustration e paddocks adjoining, land to be devoted to shed will be noticed wide and 36 feet long, eet high in the front. t the top of the front, open. This shed is for should be quite coms a place for the sow mid-winter.

re bins which will hold is put in so that e use of slings. These ve a good deal of time er carrier is installed e appearance and lay-nd results.

Lump Jaw.

alled lumpjaw, is a d characterized by the nective tissue, growth ally appear about the e disease is not con- uld an animal consume on a diseased animal, ontracted. While the attle, it is occasionally horses. Cattle which specially of barley or most subject to the rds are liable to scarify outh, hence render the ttle are often infected which was grown on to over-flow of water. ead-like fungus known , or the actinomyces fungus. This fungus ularly on the awns of ally when these have on usually takes place us membrane of the e skin.

disease appears in dif- out the head or throat; e of the lips or growth nx. The enlargement ead, some part of the If the bone be not s movable by manipu-olved, of course it is ly gradual, sometimes d discharge of muco- heal and in a variable other cases no eruption of the animal does not, or considerable time. ved, the teeth sockets e teeth become loose equence, is unable to or less rapidly in flesh. a condition known as alarged and hardened, al use of it; there is

generally well-marked salivation and a gradual decline in the condition of the animal as it cannot masticate properly, chiefly due to his inability to make its tongue perform its functions. In other cases only isolated areas of the tongue are involved when nodules of different sizes can be noticed, in which cases ulcers may appear.

Actinomycosis of the lips is very rare. When seen a well-marked thickening and hardening of the muscles, especially of the upper lip, is noticed, or nodules of various sizes appear in the tissues of the lip. Actinomycosis of the pharynx causes difficult breathing and swelling of the throat, with more or less well-marked inability to swallow. Diagnosis is sometimes difficult as swelling due to injuries may be mistaken for the disease. However, these usually appear more suddenly, but there are exceptions. In doubtful cases the only method of definite diagnosis is by the use of a microscope by a bacteriologist or others familiar with its use, as of course in a case of actinomycosis the fungus can be found by the microscopist. The course of the disease is usually somewhat slow. It is claimed that some mild cases make a spontaneous recovery.

Treatment.—In cases where the disease is confined to soft tissue, the quickest and most satisfactory treatment is dissection. The animal should be cast and secured, the seat of operation should be clipped, or better shaved, and disinfected with tincture of iodine, or a five per cent. solution of carbolic acid, or one of the coal-tar antiseptics. The hands of the operator and the instruments should also be thoroughly disinfected the growth cut down upon and carefully dissected from the skin and underlying tissues, the wound carefully stitched, leaving a small opening at its lowest part for the escape of pus, and then kept clean and disinfected three times daily until healed, the stitches being removed in ten days to two weeks. Where the tumor is in the region of the throat it is well to get a veterinarian to operate, as there are many important blood vessels in this region. When bone is involved or the tongue or lips the seat of disease, if treatment be given in the reasonably early stages, the so-called "iodide of

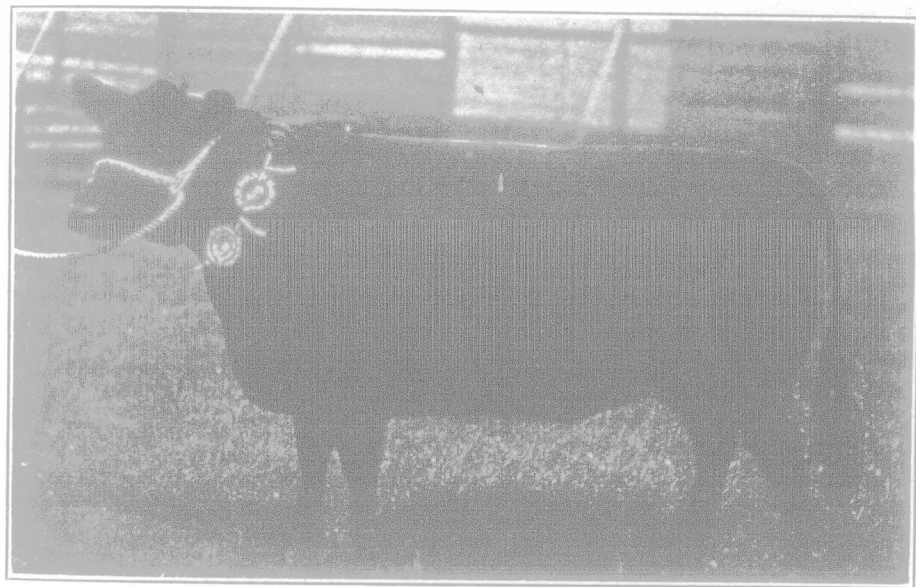
less excuse for the use of a grade ram than is the case with other classes of farm animals. The initial cost of a pure-bred is reasonable, the increase is rapid and the number in the flock comparatively large, which all mean the returns from the use of a good ram in the flock are soon apparent. Not only should the ram be a pure-bred, but he should possess all the characteristics that are associated with a good sire, together with proper type and conformation. Unless a sire possesses abundance of vigor and vitality he will prove a disappointment as a breeder. A broad, short head, bright, full eye, large muzzle, thick neck, a deep, full chest, broad and deep in heart girth and a bold, stylish carriage all indicate an animal with plenty of strength and constitutional vigor. He should also conform to the true mutton type, being short and straight in leg supported on strong upright pasterns, full and deep in body, straight in his lines, long and level hindquarters with full, deep thighs. He should possess to a marked degree all the characteristics of the breed which he represents. The fleece, of course, will vary, depending upon the particular breed to which he belongs, but in all breeds it should show density and quality, together with sufficient length consistent with the breed in question. A clear, pink skin is an indication of health and quality and should not be overlooked. There should be no indication of horns or scurs on those breeds that are hornless. In selecting a ram many prefer to choose a twin, believing that the chances for double lambs will be greater than from a single ram.

AGE TO BREED.—There is considerable difference of opinion regarding the age at which a ram should be brought into service. Where comparatively small flocks are maintained there is a tendency to use a ram lamb. Such a ram can be purchased cheaper, and on flocks ranging from half a dozen to twenty, they will give satisfactory results provided they are judiciously handled. On farms where twenty-five or more ewes are to be bred it would be advisable to secure the service of a mature ram. There is the added advantage of purchasing an older ram; the buyer knows exactly what he is getting, which is not always true when buying

with the flock until later in the summer, at which time it is well to separate him from the ewes; otherwise, as the cool nights in the fall approach, there is danger of the ewes breeding. During the fall, the ram may be allowed to pasture with the male lambs, or if that is not convenient give him the run of a grass paddock in company with some other member of the flock if possible.

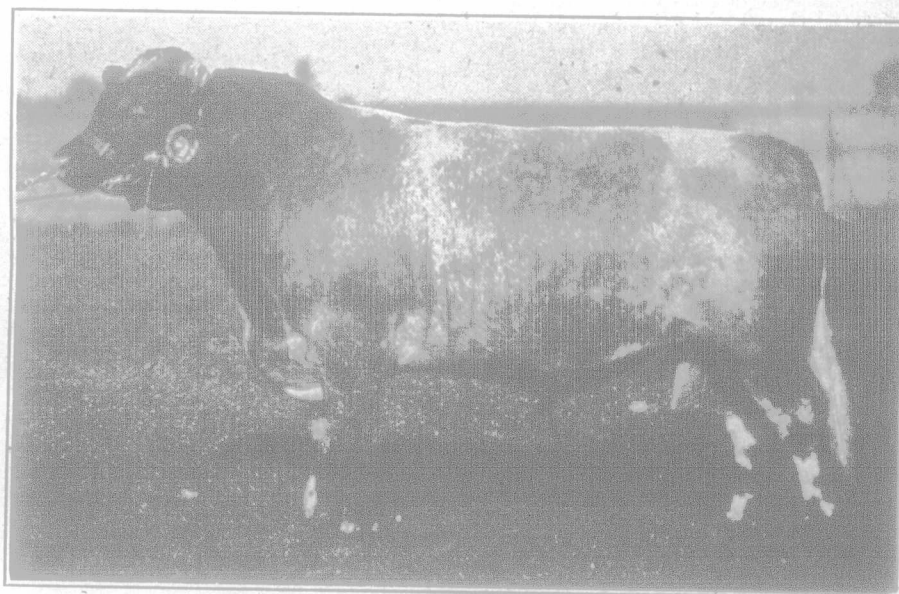
THE EWE FLOCK.—Where the object is the production of lamb and wool for the ordinary market, a flock of grade ewes will give satisfactory results provided they are of the proper type, the flock culled carefully and mated to a good pure-bred ram. The ewes should show all the characteristics desirable in a mutton sheep, i. e., blockiness and fullness of form, strength and vigor, together with feminine character. The type of fleece already described in discussing the ram should also be looked for in the ewe flock. The importance of selection in order to maintain a high standard and to develop uniformity in the flock is a feature of sheep management that should be carefully observed. In order to cull the flock intelligently it is important that the owner have an intimate knowledge of every member of the flock. It may happen that some of the most useful ewes in the flock may be in thin condition due to nursing two husky lambs all summer; this being true, there is a danger of discarding a desirable ewe. A ewe sound in mouth and udder and a good breeder should be retained in the flock until her period of usefulness is past. However, there are usually a few members of the flock, i. e., those with broken mouths' defective udders, undesirable conformation or non-breeders that should be discarded and their places taken by a few of the choicest ewe lambs. Possibly the best time to do the culling is at the time the lambs are weaned. At that time the flock can be gone over carefully, and it is a favorable time to detect the ewes that have not proven their worth. At this particular time, too, the lamb flock is sufficiently developed, that the ewe lambs to be kept may be intelligently selected.

FALL MANAGEMENT OF THE FLOCK.—After the lambs have been separated from the flock, the aim should be to prepare the ewes for the subsequent lamb crop. The



Mendoza.

Champion Aberdeen-Angus female at the Royal Show.



Babraham.

Champion dual-purpose Shorthorn male at the Royal.

potassium treatment" is effective in a large percentage of cases. It consists in giving the patient iodide of potassium three times daily. For an average-sized animal commence with one-dram doses, and increase the dose by one-half dram daily, that is, three doses of one dram each the first day, three of one and a half drams each the second day, three of two drams each the third day, etc., until the animal shows symptoms of iodism (poisoning by iodine) which are: a loss of appetite and thirst, a flow of fluid from eyes and mouth, (in cases of tongue trouble, of course, the latter symptom is present before treatment commences, hence is not to be considered). So soon as any of these symptoms become well marked the administration of the drug must cease. In most cases the enlargement gradually reduces in size for some time, but in many cases does not entirely disappear but the process of growth ceases, the fungus has been destroyed, and a cure is claimed. If in about three months after treatment ceases symptoms indicate that the disease has not been arrested, a second treatment should be given.

WHIP.

Selecting and Mating the Flock.

Although it is too early in the season to breed the farm flock, it is not too early to consider the ram that is to be used, nor to think about conditioning the ewes for the breeding season. The increase of the flock depends a good deal on how the ram and ewes are handled and cared for prior to and during the breeding season. The following paragraphs from Ontario Department of Agriculture, Bulletin 274, written by Professors Toole and Sackville, give practical information on the matter referred to.

In order to make any progress in the development of live stock it is absolutely essential to maintain a good pure-bred sire for use on the herds and flocks. There is no more direct or economical method of improvement. An animal that has been bred and developed from good ancestors for a number of generations is bound to give better results as a sire than a scrub. There is possibly

a lamb. In other words, a promising lamb is sometimes disappointing as a mature ram.

NUMBER OF EWES TO RAM.—Under ordinary conditions of mating, that is to say where hand coupling is not practiced, a mature ram will care for a flock of from forty to fifty ewes. As already suggested about half of this number would be sufficient for a lamb approximately eight months old. With the ordinary flock of fifty ewes or less it will be necessary to arrange for a change of ram every two years to prevent too close breeding. Of course, where more than fifty ewes are maintained and more than one ram in service required, it will be possible to retain the sire in the flock for a longer period.

FEEDING AND CARE OF RAM.—The aim should be to keep the ram in good vigorous condition at all times of the year. A short time before the breeding season commences a light feed of grain once per day might be advisable. During the time the ram is doing service in the flock a fairly liberal supply of grain should be fed. A ration consisting of two parts of oats and one part of bran gives good results. A mature ram can safely be fed from one to three pounds per day, the amount depending largely on the work the ram is doing. This, however, is a matter of the feeder's judgment. In order to retain the vitality of the ram and to get best results it is not wise to let him run with the flock continuously during the breeding season. A satisfactory plan is to allow the ram to run with the ewes during the daytime, shutting him away at night. In this way it is possible to give him two feeds of grain a day and in addition an opportunity is afforded for a rest. The question of mating is discussed more fully in another section. At the conclusion of the breeding season the ram may be allowed to run with the flock. The ration fed to the flock will usually suffice to maintain the ram in proper condition during the winter.

As the ewes approach lambing time it might be advisable to remove the ram from the ewe flock, which will avoid any danger of injuring the in-lamb ewe. When grass comes the ram may be turned to pasture

rain on the ewes during the few months previous to weaning will usually result in the flock being in thin condition, and it is necessary that they receive good care so when the breeding season comes they are in good condition and gaining in flesh. It will be necessary to put the ewes on scant pasture a few days after weaning in order to check the milk flow and give them a chance to dry off. At the same time the flock should be watched carefully for a few days and milked out by hand. Unless this is attended to there is a possibility of udder trouble as it is usually the best producing ewes that require attention. The day after the lambs are weaned the flock should be assembled and each ewe should be milked out. Two days following they should be again gone over. At this time it will be found that some members of the flock will require no more attention; these may be marked with colored chalk. In about three or four days more those not marked will require a third milking out. With the exception of a few of the best milkers the flock will then be safe, but it may be necessary a few days later to again strip out a few of the heaviest milkers.

When the ewes are safely over the weaning process they should be moved to good, fresh pasture, and given an opportunity to regain the flesh lost during the period of nursing the lamb. It is a fact that has long been recognized by sheepmen that ewes in good vigorous condition when mated to the ram will give a much more satisfactory lamb crop than when bred in comparatively thin flesh. "Flushing" is the common term, and is simply conditioning the ewes preparatory for the breeding season. Ewes in such condition will give birth to strong, rugged lambs; there is a tendency for a larger percentage of twins and the ewes are more likely to conceive. Rape pasture has given excellent results for fall feeding of ewes. For best results the flock should have the run of a grass pasture in conjunction with the rape. Care should also be exercised in turning the flock on for the first few days, otherwise bloating may result. Very satisfactory results have been obtained at the Ontario Agricultural College with rape pasture