

laws. The sum of five dollars shall be paid by the Association for each American bred male eligible for registration, born after March 20th, 1889, that is killed or castrated while in good health after it is five days old, and before it is fifty days old, on application and affidavit of the owner of dam, on forms furnished by the secretary, stating the date of birth, date of service of dam, name of sire and dam, date of slaughter or castration, and by whom performed. The American Aberdeen-Angus Association seeks the accomplishment of the same object through the action of the following by-law. Of every ten calves eligible to entry that are calved, the property of any breeder in America, one must be castrated or two will be excluded from record. Each of these methods have their good features, but the most striking difference to our mind is that the by-law of the Holstein breeders is an inducement, while that of the Aberdeen Angus members is a requirement, and hence the latter is the more likely to be carried out, while on the other hand it appears to us that the Holstein by-law will prove equally effective in the desired direction when acted upon. The absence of direct cost to the Association is a strong point in favor of the by-law of the Aberdeen-Angus Association. However, they have both, we believe, proven to be good measures, and it would be well for other like associations to consider fully to what degree similar by-laws might prove beneficial to them.

### The Care of Live Stock Between Summer and Winter.

During no period of the year are the live stock of the farm so liable to take harm from vicissitudes of weather as on the approach of winter. It is usually a busy period with the farmer, and because of this he is more prone to neglect them than he would otherwise be. This neglect also arises in part from the fact that the winter quarters, in which the stock are to be kept, are not ready to receive them. But, whatever may be its cause, the consequences are the same—a loss of flesh that cannot be made up again during the winter, but at a great sacrifice of food. The prevention of this loss should be the earnest study of the farmer. But it will not be wholly avoided unless much energy and vigilance are brought to bear upon his work.

It is not an absolute necessity to house all the cattle at the same period. The milch cows should be the first objects of care, and they should not be left out at night in any case longer than the arrival of the first cool nights in the month of September. Young animals which are not intended for fattening may remain out until the nights are much cooler, provided they have a shelter in the form of a broken woodland to which they may have access. They will in such a case make choice of a protected place in which to spend the time. But, along with this protection, they must have access to pastures which are luxuriant. Where such is not the case it may require less labor to draw food to them once a day by way of a supplement than to house them.

Sheep will rough it well on the approach of cold weather, provided they are not exposed to cold storms of rain and sleet. Those are very dangerous to them and flock masters should in no case allow them to be thus exposed. If protected during these first storms they will do very well indeed outside until the ground becomes permanently covered, providing the picking is not too bare.

Calves should be the objects of a special care during this critical period. Their less matured frames

are but ill fitted to withstand the cold, rough weather of late autumn, and they should not be required to do this. There is but little excuse for leaving calves out in cold storms, as they do not require to be kept in single stalls, but fare very well together in limited numbers.

Young colts are equally injured by undue exposure. If they are allowed to get weak or to go backward at this period they do not recover lost ground before the springtime. All improvement in condition during the winter with animals which have been allowed to run down, is made at a great sacrifice of feed.

Young pigs are no exception to the general principle that is being laid down in the above. The fool not only requires to be abundant, but their quarters should be warm and dry. They are better to be allowed out a good portion of the time, but should have access to comfortable quarters at will.

Another feature requires to be considered apart from the economy of the question. It is that of humanity. Who that has the feeling of a man can rest in a comfortable bed at night, knowing that his dumb dependants are shivering from cold? We read that a righteous man regardeth the life of his beast. There need be no difficulty then in pronouncing upon him who knowingly does not so regard it. Whatever he is he cannot be a righteous man.

### Disqualified Stallions.

The separating of distinctly hereditary diseases from those which are not so, has always been a subject for quibbles amongst horsemen. The matter being so hazy, it is gratifying for those desiring to arrive at true conclusions to observe the attention that has been given the question by the best English authorities, comprising the Royal Commission on Horse Breeding. Through the collecting of experiences and opinions from the best available sources, the conclusion is firmly established that stallions are unfit for stud purposes which are affected with roaring, whistling, cataract, ringbone, unsound feet, navicular disease, and spavin. These diseases are laid down by the Commission as being transmissible from sire to progeny or equally so from dam to offspring. This list may not be large enough to suit the views of some, but it must be remembered that the object was to classify diseases which are decidedly hereditary from those which are only rarely so, and those which are not transmissible under any circumstances.

These disorders being frequently met with, they should receive the breeder's best attention. Roaring is perhaps the most uncommon of those named amongst our horses. Being a trouble that is self-accusative as it were, the only caution necessary is to know it so well that no other simple disease may be substituted for it by a deceiving groom. This disease has its origin through injury to the breathing passages, and most generally arises from injury to the larynx, which is attached to the upper end of the windpipe. If through paralysis, for instance, the horse loses power over the muscles that control the vocal chords, the passage of air over these in breathing will produce the sounds of roaring. The trouble known as whistling is stated to be a modified form of roaring, being due to similar causes which are traceable to injuries occurring in the region of the trachea or windpipe.

A more difficult trouble to ferret out is that of cataract. It is an affection that attacks the eye, and unless carefully looked for, especially in its incipient stages, it is apt to escape the notice. But a little distance back of the pupil of the eye there is a lens, called

the crystalline lens for the receiving of impressions, and it is that which is attacked in this disease. As a result of this disease the vision is impaired, and through that fact its detection is easy.

That bone diseases are transmissible from parent to progeny has long been conceded, but it is a glaring fact that but few of our horsemen act in strict accordance with their belief in this matter. Unsound feet, meaning thereby, brittle, flat, and contracted hoofs, is one of the greatest weaknesses that may overcome an otherwise good draught horse. It is imperative for those using a stallion to examine well not only with the eye, but with the hand, every structure of the leg from the shoe upwards. Such diseases as ringbone, bone spavin, and splint, and other abnormal growths of bone, are often due to injury to the part on which they grow, and hence may be sometimes far from hereditary. When accompanied by short pasterns, soft bone, or weak joints, then they may be looked upon as decidedly hereditary.

Perhaps the most common disease of the feet in heavy horses is that of side bones. When healthy on each side of the horse's foot two flexible bodies may be felt, but in a state of disease they become hard and seriously interfere with the elasticity of the foot. In the case of light horses, navicular disease is by far the most prevalent. The small bone just back of the bone enclosed by the hoof, often through injury becomes inflamed, and as a result a union takes place between it and the cartilage, which ultimately results in the bone becoming firmly attached to the tendon. Bone spavin is so well known to be hereditary, that comment in respect to it is unnecessary. It is the part of policy for the breeder to be cautious in deciding to use any stallion that does not stand square and move level, no matter how plausible an excuse may be put forward by those interested.

### Through the Winter with the Flock.

The most injurious practice that is frequently followed in wintering sheep, consists in crowding them into warm, badly ventilated quarters during the greater part of the winter season. There is nothing that will more surely affect sheep injuriously than to huddle them in close pens, for they must have room in the sheds and judicious liberty in the yards to keep in sound vigorous health. They should be sheltered from sleety winds and rough storms, but further than that they require nothing in the form of protection. Except during inclement weather the doors should be open, allowing them to run in and out as the humor comes upon them. The fold, for say one hundred sheep should be about fifty feet long and ten feet wide, with yards attached at least three or four times that size. It is the better practice in carrying such a number of sheep over winter to divide the flock into groups of twenty or twenty-five. It is a very important matter to see that the floor of the pens is dry, and of such material that it will stay so if the pens are bedded with straw. Neglect of this matter will lead to scald, and eventually to foot-rot. A layer of hard wood ashes makes a covering for the floor that will serve the purpose well. The attentive and intelligent shepherd will be always on the alert to see that his sheep are never exposed to dampness in any form, either above or under foot. Dry, large, cool, and well ventilated pens influence success most in sheep raising.

After surrounding the flock with the most healthy conditions, their management becomes much easier and their feeding less elaborate. Some few still hold to the opinion that during winter sheep do not require water. This is a mistake that will be strikingly