

characteristic changes, and the appearance of the "Galvanee's Mark" is noticed on the outer surface of the corner upper incisor.

At eleven years of age the corner upper incisors show the characteristic changes but possibly not as well marked as in some of the rest. At this age the cups in all the incisor teeth will have disappeared under normal conditions.

We have noticed that the eruption of the teeth up until the permanent teeth were well established was somewhat regular and that the difference in the appearance of the teeth was about one year. We also noticed that the change in the appearance of the teeth after the sixth year occurs with more or less regularity, and that the changes occur at intervals of one year, about the same as in erupting them. This change occurs in the same order. It can be easily understood that if the composition of the teeth were always the same, the feeding always ideal, and the teeth not interfered with in any manner, that we could determine the age with a certain degree of sureness. As it is, however, our judgment will vary, due to those influencing factors that cannot be controlled by man.

LIVE STOCK.

Pure-bred breeders will do well to separate the bull calves from the heifers this month. It is dangerous to leave them together much longer. Many heifers are ruined each year by carelessness on the breeder's part in allowing the two sexes to run together too late in the fall.

Many farmers make a mistake at this time of the year of over feeding on new oats. If old oats are still available it would be wise to continue feeding them in preference to those that have just been threshed. If the supply of last year's is exhausted, start off gradually on the new ones—they are apt to cause digestive troubles.

The Governor-in-Council has passed the following additional regulation under the Animal Contagious Diseases Act: "No person shall deface, conceal, or take out, wholly or in part, any permanent mark which, under direction of the Veterinary Director General, has been applied to cattle reacting to the tuberculin test."

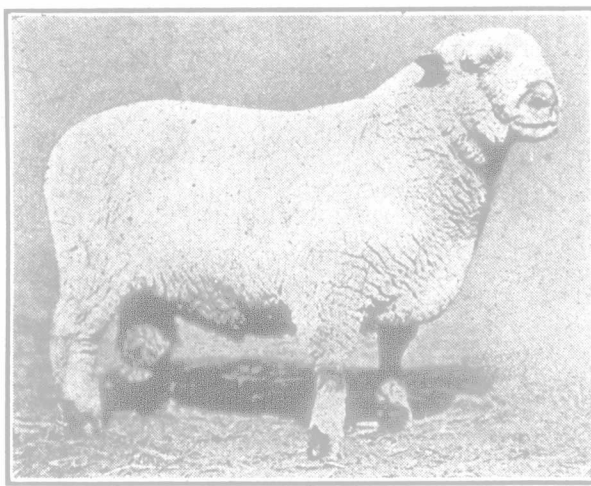
At this time of the year when the lambs are on rape and when the rest of the sheep are on the stubble, it pays to be on the lookout for any that may get on their backs in the furrow. There are few things more helpless than sheep in such a position, and they are not there long before they are past the stage where assistance is of much value.

Croup in Calves.

Young cattle varying in age from a few weeks to a few months, are subject, especially those kept in low, damp pastures, and more especially those pasturing near streams of water and during the fall of the year, to a form of inflammation of the throat, characterized by the formation of a fibrinous exudate or false membrane, usually of a greyish-white color, but sometimes brown or yellow, extending over the mucous membrane of the larynx and the windpipe, sometimes over the posterior portion of the mouth, and in some cases the bronchial tubes are involved. This condition is generally called croup. It differs from ordinary catarrhal laryngitis in a well-marked manner. In ordinary laryngitis there is always an increased secretion of mucous which is discharged as quickly as it is formed. In croup an exudate process attends the inflammation of the larynx and windpipe, which induces the formation of false membranes which vary in thickness and consistency; some of which are quite thick and opaque, others quite thin and transparent so that the mucous membrane can be seen through them. Some of them are so firm in consistence that they can be detached for a considerable length without tearing, while others have little consistency. They vary in color from a dirty greyish-white to a yellow or yellowish-brown. If an animal

be examined after death, after the disease has existed for four or five days, the windpipe and larynx will be found to be lined for a considerable distance, in some cases only partially lined while in others the whole circumference will be covered, by a false membrane forming a complete tube or cylinder.

Symptoms.—The first symptoms generally noticed are a coarse cough and a discharge of a frothy saliva from the mouth, and of mucous from the nostrils; the animal is unthrifty; has some difficulty in swallowing; sometimes swellings appear just behind the jaw-bone on one or both sides, also in the space between the jaw-bones (the maxillary space). These symptoms are usually succeeded by increased difficulty in breathing, respiration being accompanied by a crowing noise and by spasm of the muscles of the larynx, causing violent paroxysms. In other cases the spasmodic affection of the larynx and difficult breathing occur without any premonitory symptoms. The pulse is hard and frequent at first, and becomes more frequent, but feeble and indistinct as the disease advances; the fits of coughing become more and more troublesome, and violent paroxysms frequently occur, especially if the patient be subjected to any sudden exertion or excitement. In the course of two or three days, flakes or false membrane are coughed up; salivation becomes more profuse; the false membrane, which never becomes organized



Shropshire Ram.

Champion ram of the breed at Toronto for J. D. Larkin, Queenston, Ont.

or bloody, is loosened and detached by a fluid poured out from the mucous membrane, until it is finally separated and cast off. If the case progresses favorably this membrane is not again formed, the suppurative process terminating in the inflammatory action.

Treatment.—Of course, preventive treatment should be observed. This consists in providing good shelter and sanitary quarters for the calves at night and during wet, cold weather, in addition to seeing that the paddocks or fields in which they are kept are not damp. When the symptoms of the disease are noticed, if they are alarming, the breathing very difficult, and the noise loud, there is danger of immediate suffocation, and an operation known as "tracheotomy," which consists in the insertion of a tube into the windpipe, and can be performed only by a veterinarian, is necessary. Hence the services of a veterinarian should be promptly procured. It is essential in every severe case that air be promptly admitted to the lungs, as, should the operation be delayed, the animal will soon succumb to suffocation, or a condition of blood-poisoning caused by an overloading of the blood with carbon and effete material. When the symptoms are not so severe, the nostrils should be steamed for several hours consecutively, by holding the head over a pot of steaming water, or other device, and it is well to add to the water a little iodine or carbolic acid. A solution of nitrate of silver, one-half dram to an ounce of distilled water, should be applied directly to the diseased mucous membrane. This can be done by holding the patient's

mouth open by the use of a mouth speculum, a clevin, or other device, and applying the solution with a feather, care being taken to not apply it to a greater surface than that upon which its action is required. This should be repeated once, or at most twice, daily. A little, say a teaspoonful, of nitrate or chlorate of potassium should be given in the drinking water, and if the patient be constipated a little raw linseed oil, or castor oil, should be given. If prostration be very marked, a stimulant as a teaspoonful of whiskey or sweet spirits of nitre in a little cold water should be given every few hours. Any fluids given by the mouth must be carefully administered, as, on account of the difficulty in swallowing, if they be given too rapidly some may pass down the windpipe and produce fatal complications. It is better to give fluids out of a small syringe. It must not be forgotten that the patient must be kept in a warm, dry and well-ventilated building, and if the weather be cold the body should be clothed.

Whip.

Finishing Baby Beef.

There is now a tendency on the part of many feeders to get rid of their stuff at from fifteen to twenty months of age, rather than carry it over to three years as was once the custom. This means a quicker turn-over, but also necessitates that the animals be pushed from the time they are dropped until ready for the market. A calf that is allowed to stand still in development, or that becomes stunted through lack of feed will never make baby beef. The following paragraphs, from Circular 63, published by the Dominion Experimental Farms, gives different rations which have proven satisfactory.

"From thirteen to twenty months of age, beef heifers or steers intended for the butcher, may usually be finished most profitably as baby beef, marketed from eighteen to twenty-two months of age. For stall finishing the following ration is good: Hay (alfalfa or clover preferable), 8 to 10 pounds daily; silage (preferably corn silage), 30 pounds daily, gradually reduced to 20 pounds at the end of the period; roots (preferably turnips), 30 pounds, gradually reduced to 20 pounds at the finish; grain mixture, 4 pounds, increased to 8 pounds daily at the finish, composed of equal parts bran, ground oats, ground barley, and linseed oil meal. The following replacements of the foregoing feeds may be made:

1. Barley in place of corn, or vice versa.
2. Linseed oil meal replaced by gluten meal, ground peas, or even cottonseed if it is outstandingly cheap as a protein meal.
3. Bran replaced by ground oats.
4. Clover or alfalfa hay replaced by choice fine grass hays, increasing meal to obtain as rapid gains. Green oat sheaves when properly cured might profitably replace a large part of the hay ration.
5. If no silage is available, double the amount of roots in the daily ration.
6. If roots are not available, feed two-thirds more silage.
7. If neither roots nor silage are available supply better quality of hay, and more of it. Also add more linseed oil meal or some similar protein to the ration. Molasses sprinkled over the roughages or mixed with the meal, helps to replace a shortage of roots or silage and makes poor quality hay or straw more palatable."

Live Stock Notes.

The following information relative to the world's consumption of meat, prepared by the Live Stock Commissioner, is to the effect that the production of meats is not keeping pace with the requirements. During the past century there has been a rapid increase in the meat-consuming population of the world, due largely to the march of civilization, with its naturally increased standard of living, and to the increase of population in countries situated in the Temperate Zone. Statistics prove that the world's live stock surplus is not keeping pace with requirements. A number of prominent exporting countries appear to have reached the maximum of production, while others are steadily reducing their exportable surplus owing to a greatly increased domestic



Diamond Prince.

Winner of aged Shorthorn bull class at London for H. Smith, Hay, Ont.



Ivanhoe.

Senior champion Shorthorn bull at London for Kyle Bros., Drumbo, Ont.