

fattening, and which were so commonly distributed about the country. These signs of unimproved blood in cattle or sheep indicated that there had been little improved blood mixed with them, or that they had reverted; in either case, the animal was a poor thriver.

"Everyone knows that the old wild white breeds of cattle, such as the Chillingham, had black muzzles, and though breeds had been improved from them the black muzzle remained, until the general improvement of the last century so gradually established breeds vastly better, and in course of time the black nose, as indicating the older type, was bred and weeded out. Yet there are plenty of farmers living who remember when they had to cull the black-nosed cattle and speckled-faced sheep from lots they bought, because they knew that they were really unimproved, and that they were bound to be unprofitable. To-day the same thing merely indicates a cross between recognized breeds, and all that is necessary is to be able to recognize what those breeds are, and to buy or refuse them, as they think they are suitable for the purposes to which they will be put."

Black muzzles in such breeds as Herefords and Shorthorns bred pure must, of course be a reversion of type. It is simply a case of the old types used years ago in founding the breeds cropping up again as a result of atavism. We have known Shorthorn cattle of the best strains to show this defect, and the black nose was the only indication of inferiority, the cattle being of a high-class type, and right in every other way. Of course, breeders do not care to use such stock, and rightly so, for there is nothing to be gained by perpetuating black muzzles. No one knows but that if such cattle were bred their offspring might have some other defects common to their remote ancestry. But again they might not ever show the black point in question. At any rate it is well to avoid the black nose in breeding stock of white-nosed breeds.

Treatments for Tapeworms in Sheep

In the 1912 report of the Ontario Agricultural College, Prof. G. E. Day outlines several methods of treating sheep, or rather lambs, for tape worm. For many years trouble from this cause had been prevalent in the college flock, but during recent years its ravages have been stopped by treating all lambs before symptoms of the disease appear. If treatment is delayed until the lambs become unthrifty, many of the lambs never make a satisfactory recovery, and become stunted in their growth. Of several different remedies tried the following are the principal:

Gasoline:—Mix gasoline and milk in proportion of 1 to 7. Dose, 3 ounces of mixture for 100 pounds weight of sheep.

Turpentine: Dose, 1 teaspoonful in milk.

Arca Nut: Dose, 1 teaspoonful in milk.

Oil of Male Shield Fern: Dose, 1 teaspoonful in 2 ounces of castor oil.

Copper sulphate (blue vitriol): Dissolve one pound (avoirdupois) of copper sulphate, blue crystals, in 2 quarts of boiling water, which will constitute stock solution. Add to the stock solution 7 and four-fifths gallons of water to dilute ready for use. To dilute in small quantities, add a little short of a pint of water (39-40ths of a pint) to each fluid ounce of the stock solution. Dose of diluted solution:—Lambs, 1 month old, two-thirds of a fluid ounce. Increase the dose by two-thirds of a fluid ounce for every month the lamb is older than one month up to 4 months of age. Lambs, 5 months or older, require 3 fluid ounces.

Fast lambs 15 to 18 hours before giving medicine, and give no water or feed for six hours after the dose is administered. These directions apply to all remedies. It is little use to give medicine for worms without first fasting the animals.

Prof. Day reports very fair results from nearly all the remedies mentioned, but the oil of male shield fern with castor oil proved very effective, and appears to be entirely harmless to the animals. The main objection to it is the cost which runs in the neighborhood of five cents per animal for each treatment.

Copper sulphate also has proved very effective, and is very cheap, the cost being a mere trifle for a large flock. It is a poisonous substance, and it will not do to repeat the dose in a few days as is sometimes done with other preparations. At least a week should be allowed to elapse between treatments, if a second treatment is given.

At Guelph two treatments are usually given about a month apart. When drenching a lamb be sure that it is standing in a natural position on its feet (not in a crouching position). Hold the animal's head so that the nose is no higher than the eyes, and pour the liquid very slowly.

A Few Useful Hints.

The following outline of preventive and curative treatments of some of the common stock ailments which confront the breeder and feeder are sent out by Charles Keene, Professor of comparative medicine, San Francisco Veterinary College:

Disturbances in digestion are by far the most common ailments of cows. On the first signs of indisposition in a cow the food should be investigated, and at this time if a saline purgative is administered the attack will often be averted. A drench consisting of one to one and a half pounds of Glauber's or Epsom salts in solution of water is the best purgative at this time.

Inflammation of udder in cows is often infectious and can be carried from the affected to healthy members of the herd on the hands of the milkers. A good practice to follow is to segregate any animal showing disease of the udder until it has recovered. The milker should wash and disinfect his hands after milking such a cow.

Depraved appetite (pica) in cows, in which they

before and after milking. Several applications of zinc ointment to sore teats, after cleaning them, will relieve most cases.

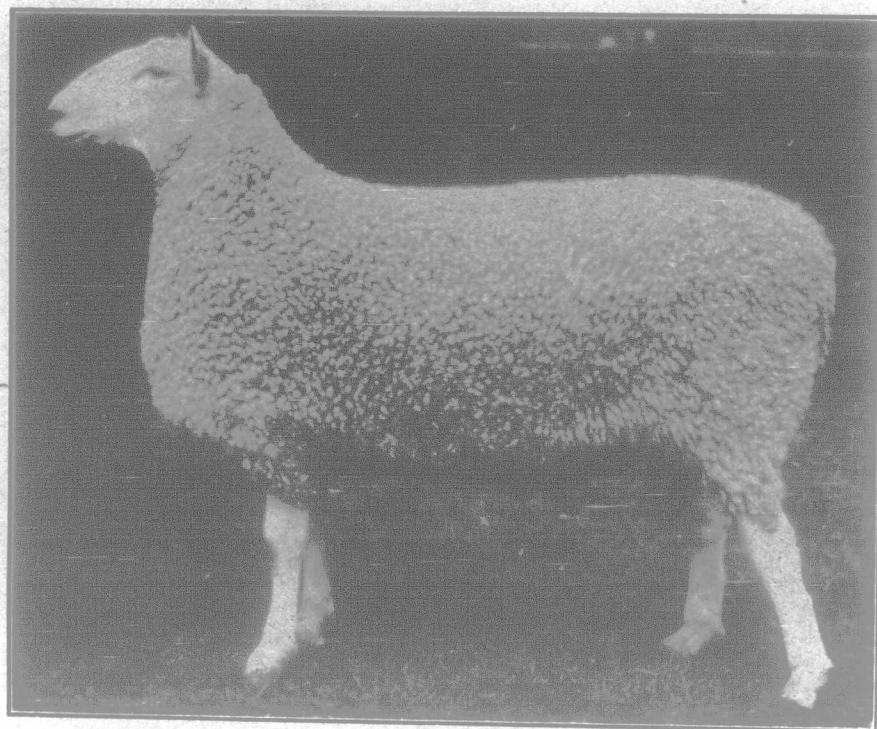
Bleeding from the navel cord in a calf may be stopped by tying it firmly with a clean piece of string. Before tying always be careful to examine the cord to see that it does not contain a loop of the bowel.

Age of Breeding Sows.

A California bulletin, discussing the comparative values of young and old sows as breeders, says:

"Some breeders have an idea that sows one year of age are more desirable than older sows for breeding purposes, but such an idea is not justified by experiment. An average of the weights of pigs at farrowing time at this and other experiment stations shows the following: That sows two years old, or older, produced 21 per cent more pigs than yearling sows, that sows two years old, or older, produced pigs 12 per cent heavier than those produced by the yearling sows. Such statistics show that it is a mistake to sacrifice the older sows and depend on young, unfried gilts. It is true that old sows often become so heavy or so fat that they lie on many of their young pigs, or they get deaf or blind, or both, which helps to contribute to the same trouble. When their usefulness is impaired in this way, they should be sold, but not until then."

This is a point worth noting. We have known pig feeders to keep young sows from a litter and breed them early, taking one or two litters from them and then feeding them off, repeating the practice with other young sows. Practical experience proves that smaller litters and smaller pigs are farrowed by young sows than by mature sows. Think this over before deciding to fat the old sow which is still a producer of large litters. Her worth is proven. The young sow must be tried out.



Champion Border Leicester Ram

The best of the breed shown at Glasgow, 1913.

eat dirt, gravel, etc., is generally the forerunner of a more serious affection of the bones, and is due to a deficiency of bone-forming elements in the food. Finally ground bone meal added to the food assists in overcoming this affection. Such cows should also have access to a piece of rock salt where it can be licked at will.

Young calves suffer from a variety of diseases, such as inflammation of the joints (joint-ill), diarrhoea, and pneumonia, that are due to infection taking place through the unhealed umbilical cord (navel string). These affections can be stopped by a thorough cleaning and disinfection of the calf barn, and washing the navel with a 3 per cent. solution of creolin, after which paint it with tincture of iodine.

Cows lose their calves (abort) from a variety of causes. However, infectious abortion is very prevalent in the dairy herds of this country. For this reason, take no chances. Isolate immediately every cow as soon as she shows signs of impending abortion. When she aborts burn the calf and its membranes. Clean up and disinfect all discharges. Wash her hind parts with a 3 per cent. solution of creolin. Keep her out of the herd until all signs of discharges have disappeared.

Never use force to remove a calf from a cow unless you are sure the calf is in the right position. Undue force used when the calf is in some positions will result in severe laceration and tearing of the cow and might result in death of the latter.

Flooding (excessive bleeding) which sometimes occurs after calving, can often be controlled by dashing cold water over the loins of the cow.

Bloody milk is caused by injury to or disease of the udder; also by functional derangement of the udder due to excitement in heat, eating of irritant plants, etc. In all cases a reduction in rations and the administration of a purgative dose of Glauber's or Epsom Salts is advisable. Milk sometimes becomes red tinged after standing a while. This latter condition is due to the presence of a micro-organism that enters the milk after milking. Thorough attention to cleanliness and sterilization of milk utensils will prevent the condition.

Mastitis (inflammation of the udder) may be often induced in a cow by rough milking when the teats are sore or chapped. Chapped teats may be relieved by gentle rubbing with vaseline

THE FARM.

Corn Cultivation.

Practical suggestions on corn cultivation are contained in U. S. Farmers' Bulletin 537 entitled "How to Grow an Acre of Corn." We quote a few of the pithiest:

To produce a maximum yield, corn roots require warmth, a certain amount of air and considerable moisture. Corn is cultivated in order to supply these requirements.

Too much water and too little air in the soil as surely prevent growth as too much air and too little water.

Air is deficient in saturated soils, and on such soils corn plants become yellow and unproductive.

Good cultivation at the proper time admits air, lessens the escape of water from the subsoil, causes the soil to become warmer and stimulates a better growth.

Weeds should be killed as soon as they begin to grow, but the primary reason for cultivating is to maintain the proper proportion of air and moisture in the soil.

If prolonged and heavy rains pack the soil to a great depth, a deep cultivation can sometimes be given to advantage while the corn is less than a foot tall.

Soon after the plants become a foot tall their roots reach across the spaces between rows, and cultivation should be not deeper than two inches. A deeper cultivation is likely to reduce the yield.

A shallow cultivation should be given as soon after every heavy rain as the land becomes in good workable condition. The cultivation should be given with such implements and in such a manner as to leave the soil in a fine, loose, smooth condition.

It is never safe to allow the soil surface to become hard and too dry to cultivate to the best advantage. Continued dry weather with the soil in this condition is certain to reduce the