

solid form or hypodermically, etc., but these methods of administration are not greatly practiced in cattle practice.

SHEEP.—The anatomy of the sheep is very much the same as that of the ox, hence the same dangers exist, and sheep being so much smaller, the danger of suffocation is much greater, and even more care must be observed. The usual manner of drenching a sheep is to have an assistant catch the patient and hold him on his rump with his back and withers up close to the assistant. The operator takes the bottle holding the drench in his right hand (the bottle should be one with a narrow mouth, out of which the fluid can flow only slowly), with the left hand he steadies the head, and then proceeds as with the ox, but he must be very careful to allow the fluid to flow very slowly and allow only a small quantity to enter the mouth between each swallow. He should instruct the assistant to immediately allow the patient to get on his feet if he commences to cough.

SWINE.—The pig is proverbially stubborn, and this characteristic is especially marked when an attempt is made to give him a drench. As it is unsafe to endeavor to hold him by hand and hold his mouth open, unless he is quite small, it is necessary to get a rope in his mouth and around the upper jaw, and then elevate his head, and either tie or get an assistant to hold the rope. He will pull backwards and express his displeasure of the operation by vigorous and usually constant squealing. As the larynx must be open when he squeals, it follows that if fluid be poured into the mouth, even in small quantities, it is more liable to pass down the windpipe to the lungs than down the gullet to the stomach. A large percentage of pigs that are given fluids in this way are either suffocated at once or the bronchial tubes so filled with fluid that death takes place sooner or later as a result. The most successful method we have tried for giving fluids to swine is to force over the neck of the bottle a piece of inch or inch and a half garden hose, the size of the hose depending, of course, upon the size of the bottle's neck. Three or four inches of hose should extend beyond the bottle. The pig is secured as noted, and the hose introduced into the side of the mouth, and the bottle elevated so that the fluid will gravitate towards the hose. The patient commences to chew the hose, and the fluid flows slowly into the mouth and he swallows without danger.

DOGS.—Medicines can usually be given to dogs more readily by their masters than by strangers. They are given either in the form of tablets or fluids. The former are given by holding the mouth open and dropping the tablet well back over the root of the tongue. If the patient's appetite be fairly good, a powder or a tablet can be enclosed in a small piece of well-cooked lean meat, and will be gulped down without taste. Fluids are given in small quantities with a spoon or bottle. The head is elevated and a little fluid poured into the mouth, which is then allowed to close.

THE FARM.

Alfalfa and Clover Don't Mature Together.

Under the heading, "A New Idea in Alfalfa," Hoard's Dairyman prints a suggestion made by Mr. Chas. L. Hill, President of the Wisconsin Dairymen's Association, who proposes that farmers put two pounds of good alfalfa seed per acre with all the clover and timothy sown for a series of years, in order that the soil may gradually become seeded with the alfalfa bacteria, so that when a seeding of this is sown, instead of the more or less weak growth that usually results for a year or so, the alfalfa might go right ahead and produce a good stand. Our esteemed contemporary goes on to say that the alfalfa plants will not detract from the value of the clover and timothy hay, that the plan proposed is inexpensive, and the resultant hay will amply pay the cost, besides preparing the soil in a cheap and effective way for a heavy seeding of alfalfa any spring it may be desired.

We read this with not a little surprise. Wisconsin conditions may be different from ours, but we have always found that alfalfa plants were rather a nuisance in a clover, and still worse in a timothy meadow. The alfalfa ripens earlier with us, and by the time the clover is ready to cut the lucerne is past its best, while, by the time a great deal—too much—clover is cut, the lucerne is so ripe as to be at a serious discount. Not a little prejudice has in the past arisen against first clover, then alfalfa, because, being frequently harvested in mixtures with later-maturing crops, such as timothy, the legumes in question were away past their best when cut, hence, not being fully relished by stock, were hastily pronounced against. Go slow in mixing alfalfa with clover seed, except in pastures.

Observations on the Corn Crop in Western Ontario.

The Dominion Seed Commissioner, Mr. G. H. Clark, often gets enquiries from local seedsmen and farmers, "Where can I secure a reliable seed supply of corn of such and such varieties?"

With a view to being able to answer these enquiries another season, he delegated his field representative from Ontario, who was in attendance at the Simcoe exhibition with an educational exhibit from the seed branch of weed specimens, seeds, etc., during the latter part of October, to extend his trip to the Lake Erie counties, which are the best corn-growing counties in Canada.

Accordingly, a week or so was spent in this district with very gratifying results. Abundance of good seed corn was found of both the flint and dent varieties to supply all the market demands, if only a suitable kind of trade could be worked up. As yet very little attention is being paid by the farmers to the growing of corn for seed purposes.

The Simcoe and Walsh Centre exhibitions afforded a grand opportunity for judging the corn crop of that vicinity. Exhibitors were showing corn from Norfolk and Elgin Counties, both of which are well adapted to produce flint varieties of good quality.

Notwithstanding the wet weather of the early part of the corn season, the crop was a good one both in yield and quality. Fully one-half seemed to be good enough for seed purposes. It was well ripened, hard, and would go into the crib in first-class condition for keeping well.

The vicinities of St. Thomas, Ridgetown, Essex, McGregor, Leamington, Blenheim and Chatham were visited, and similar observations made as to the condition of the varieties grown there. In some parts, where the ground was low, the land heavy and not well drained, a good deal of the crop was injured by the cold, wet weather of the planting season. In some cases the weeds got the start and held their ground until the finish. However, it was generally allowed by all that the crop is a good average one, and the quality is a decided improvement on that of the last three or four years.

The favorable autumn weather was admitting a large portion of the crop to be husked in the field. Where crops had been husked and cribbed, they were estimating yields of from 100 to 150 bushels of corn in the ear per acre, of which one half might safely be used for seed purposes. The corn-growers of this district should not content themselves short of 100 bushels of shelled corn per acre. Three ears on each hill of the 3,240 hills per acre, where corn is planted 3 feet 8 in. each way, would mean such a yield. It is possible. Why is it not obtained? Greater attention must be paid to details. Variety is important. Large ears with deep kernels which will ripen before frost comes, is of first importance. Good rich, thoroughly-prepared soil, perhaps, comes next; and then a full stand, carefully and thoroughly cultivated to subdue weeds, conserve moisture, and avoid tearing out hills, must follow.

The usual methods of selection and caring for seed corn are generally practiced. As the husking goes on, some of the largest and most perfect ears, according to the judgment of the husker, are kept with a few husks left on. These are risked and hung up to dry—some outside and some inside. A few who wish to do the best by it after drying outside, hang it up before frost comes in the kitchen chamber, and ensure it being thoroughly dried before hard freezing weather comes. Such corn has great vitality, and grows rapidly under favorable conditions. A few farmers take the time to select their seed corn from the main crop just before cutting it, and if they do not get all the fancy points of an ideal ear, such as being well covered on butts and tips, grain closely packed in straight rows and deep-

kernelled, placed a suitable distance up on a strong, vigorous, gradually-tapering stalk, with plenty of leaf, free from smut, and early-maturing, they get some of these points, and often make much improvement in their crop in this way.

However, outside the farmer's own wants for seed purposes, the bulk of the crop is cribbed in large-sized cribs and fed or sold for feeding purposes. When a demand for seed corn arises in the spring, and the price is sufficiently inviting, this crib corn is overhauled and the best ears are shelled for supplying the market demands. Sometimes sorting is not even resorted to. This method has resulted in much disappointment to many corn-growers who buy their seed corn each year. The dangers arising from cribbing corn in large bulk for seed purposes are, that often soft corn gets mixed up with hard corn and heats, producing mould, and preventing the hard corn from becoming sufficiently dry before hard freezing weather. Mice getting in the crib, sometimes, by staling the corn, cause similar conditions. This year, as the corn is so thoroughly dried before it is cribbed, there may be but little trouble from this source. If the trade in seed corn could be encouraged on the ear, instead of being shelled, it would eventually prove much more satisfactory to both buyer and seller.

Farmers who have adopted some system of rotation in cropping know pretty well in the fall of the year what supply of seed corn they will require.

Why could it not be arranged that the buyer could place his order with the seedsmen with whom he deals, or, more directly, with the grower, and secure his seed corn in the fall directly it is husked. He could have it shipped in the car in crates or jute sacks, and on arrival he could take care of it in the most approved way. Each ear could be tested, if desired, in the spring. As it is, it is very difficult for the grower to take care of large quantities satisfactorily.

It would certainly pay some men in the corn-growing belt to pay special attention to handling seed corn in less bulk than now obtains in large cribs.

Some dealers in seed corn in the States of the corn belt are providing warehouses with latticed floors, so that artificial heat from the basement can permeate the seed corn, held in crates and piled in tiers, but open enough so that the heat can pass through, as well as a circulation of air. Thousands of bushels are now being handled in this way.

Another method a large Minneapolis firm is adopting is to build narrow cribs of two by four inch studding and covering it with a fine-mesh wire, with passages between to fill and empty the cribs when necessary. This plan was giving satisfaction.

A Western Ontario grower and dealer in seed corn near Leamington had constructed two narrow rail cribs and covered them with boards for drying his seed corn in bulk, which seemed to be very satisfactory. He was also furnishing crates for some who were growing seed corn for him, that they might ship it to him in this way as soon as it was husked and sorted.

It was gratifying to see the results from a number of hand-selected seed for breeding plots of corn this year. Others, appreciating its value, will try it next year for the first time. The breeding plot enables one to eliminate the tendency to produce barren stalks by detasselling the barren ones in the plot before they produce any pollen. Cross fertilization of at least one-half the plot is ensured by detasselling the alternate rows, and in this way produce a better seed corn.

There are a number of corn-growers in the Lake Erie counties who could supply from 20 to 300 bushels each of seed corn on the ear if they were sure of selling it and could get a sufficient price to pay for sorting and shipping it in the way it should be handled for seed purposes. One progressive young farmer, Mr. J. O. Duke, of Olinda, Ont., expects to handle some 1,500 bushels of seed

