

as common as they should be where the herd is maintained for dual purposes, but any that come along at this season of the year should receive particular care, for they will be worth a fair price for beef in the next few years.

Any normal calf will consume a large quantity of milk when obtained naturally from the udder of its dam or nurse cow, but bucket feeding is a different proposition, and the acme of a herdsman's skill is teaching a sucking calf to drink skim-milk out of a bucket. This is a good test for any aspiring agriculturist, and an examination that all lecturers and leaders should pass before communicating their views to others. However, the practice is not to be commended for the first few weeks of the calf's life when it is being weaned from its mother and changed from whole milk to skim-milk and grain is a critical period, and it is then that common sense and skill go a long way in molding the creature that at the age of thirty months finds its way to the block and to the consumer. Many calves are injured by over-feeding at the start when the bucket is used, and more especially so when skim-milk is a part of the ration. Feeders in their ambition to grow a good calf endeavor to replace with quantity the fat which is absent in the skim-milk, and in doing so bring indigestion and attendant evils upon their charge. In order to indicate approximately the quantity of milk that is safely fed, and the steps in changing from whole milk to skim-milk, the instructions that were followed in an experiment at Macdonald College are printed below:

1. Birth until four days old—8 to 10 lbs. of whole milk, in three feeds per day.
2. Fifth until seventh day—10 lbs. whole milk, in 3 feeds per day.
3. Seventh to tenth day—12 lbs. whole milk, in 3 feeds a day.
4. Tenth to fifteenth day—11 lbs. whole milk and 1 lb. skim-milk, in two feeds a day; also 1 teaspoonful linseed porridge each feed.
5. Fifteenth to twentieth day—9 lbs. whole milk and 3 lbs. skim-milk, in 2 feeds per day; also 1 teaspoonful porridge each feed.
6. Twentieth to twenty-fifth day—7 lbs. whole milk and 5 lbs. skim-milk, in 2 feeds per day; also 2 teaspoonfuls porridge each feed.
7. Twenty-fifth to thirtieth day—3 lbs. whole milk and 9 lbs. skim-milk, in 2 feeds per day; also 1 tablespoonful porridge each feed.
8. Thirtieth day—12 lbs. skim-milk, in 2 feeds per day; two tablespoonfuls of porridge at each feed.
9. Gradually increase skim-milk to 24 lbs. in 2 feeds per day, and linseed porridge to half pint as the calf develops. Arrange to wean calf at six months old.

We use this schedule, not because it is infallibly correct, but simply to point out the steps and precautions that wisdom recommend when the calf is being introduced to a diet of roots, silage, grain and hay that will later constitute the ration. The function of the linseed porridge is to replace the fat that is absent in the skim-milk, but it will not be necessary to continue the feeding of meal in this way, for the calf before it is many weeks old will eat its grain from a box and derive more benefit from it that when obtained as a drink.

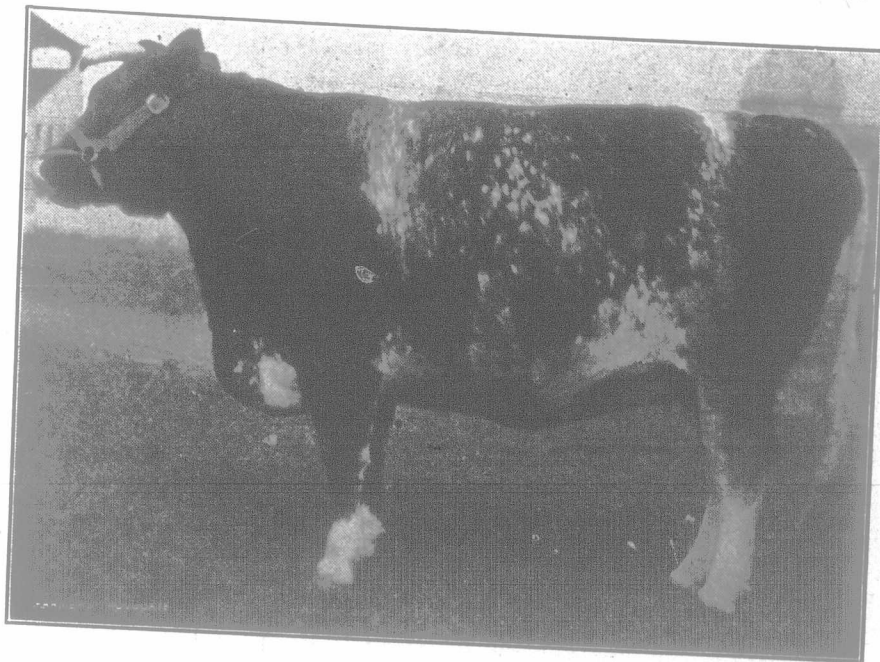
Obstacles Before the Fall Pigs.

A pig is a hog from the start, but the young ones do not have so strong a stomach as should accompany the name and the appetite which they possess. Young pigs are really delicate creatures if they have been developed in a sow subjected to unnatural conditions. The wood-lot or open field is a more suitable place for the brood sow, and more like the abode of her progenitors than the seven by nine pen in a basement with a cement floor. It is often said, and seldom without truth, that good luck always accompanies the sow that farrows in the fence corner, and if the reasons cannot be explicitly related, it will suffice to say that it is getting back to nature and nature's ways are best. Modern domestic swine have a much decreased length of intestine compared with that of the hog in the wild state, and concentrated foods must take the place of the coarse, fibrous fodder which is the major part of the food allowance of swine in the natural state. Present-day troubles center round indigestion, due to improper feeding or rearing and crippling as a result of damp housing and lack of exercise. These obstacles usually confront the autumn-farrowed pigs.

Indigestion is liable to occur any time during the first three months of the young pig's life, but if the mother is fed on laxative foods and the kind that produces milk it is quite likely that the litter will be immune till weaning time, yet many small pigs while still on the dam are fed so liberally by the mother that a super-abundance of fat gathers around the heart, and the pigs die from what is known as "thumps" or a failure of the heart to pump the blood through the system. This trouble can be prevented or remedied by reducing the allowance to the sow and feeding laxative foods.

At weaning time, which should not occur un-

til the litter is nearly eight weeks old, obstacles may appear again. However, if the young ones have been taught to drink from a trough the matter is more simple, for a little slop made by scalding middlings or shorts and mixing it with milk is an ideal ration, and the parts required to compound it can usually be produced on any farm. They should be watched closely, however, and if any signs of constipation appear from two to six ounces of Epsom salts, according to the size of the pigs, should be mixed with each one's food, or better, a mixture of Epsom salts, sulphur and charcoal might be administered daily via the trough until the bowels act freely. Diarrhoea, too, is a frequent disturber, but it is usually the result of indigestion, and proper feeding will prevent it. If a case should occur, fifteen to twenty drops of turpentine for each

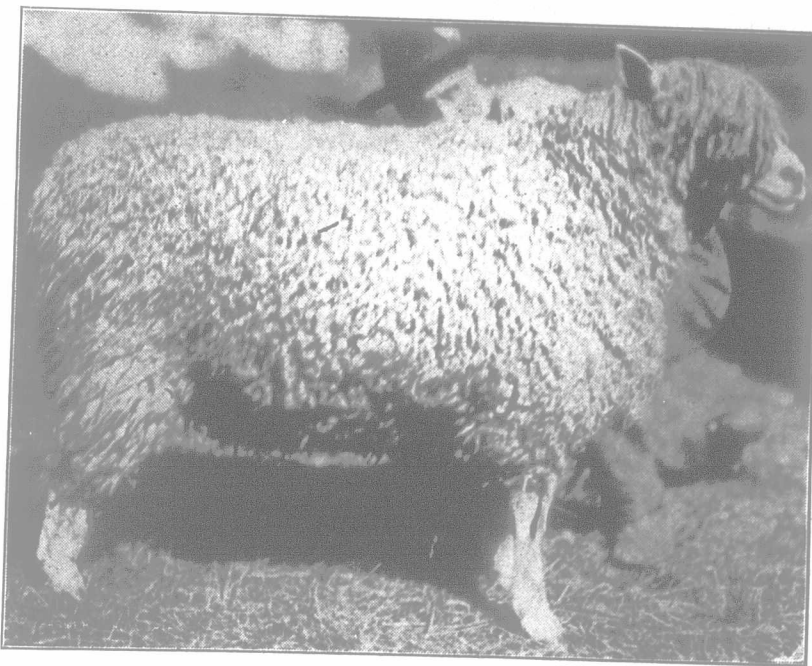


Golden Drop 15th.

Champion Shorthorn female at Ottawa. Owned by Kyle Bros., Drumbo, Ont.

patient three times a day will often allay the trouble, and it is easily administered when mixed with milk and fed in the trough. In addition to this a tonic made of equal parts of tincture of ginger and gentian will aid in bringing the young pigs back to normal. One teaspoonful three times daily will be sufficient for each one.

It is extremely necessary to have the system developed normally with each part in unison with the other, but in violation of this rule pigs are too often grown with an insufficient supply of mineral matter, particularly lime. The effect is noticeable in weak frames, impaired appetites, and diseased animals. A mixture of charcoal, bone meal, crushed limestone, wood ashes and salt should always be before them. From this



Cotswold Ewe.

First-prize aged ewe at Toronto, and second at London. Bred and owned by T. H. Shore & Son, Glanworth, Ont.

they will take what is required to keep the system balanced.

One great trouble with fall-farrowed pigs is "crippling." This is due largely to the absence of mineral matter in the food, damp, unventilated quarters and lack of exercise. Exercise is not always, or ever often, easy to give in the winter months, but the litter should have it at the cost of any trouble. It will often pay to devote one-half hour to driving the pigs up and down a lane or even brushing them around in their pen. Importance enough is seldom given to the fact

that swine of all kinds should have access to the ground, but a few swine breeders even go to the trouble of storing sods and soil in a convenient place, and throwing it into the pen during winter months when it is impossible to get the pigs out to the ground. Allowing the growing pigs, brood sows or swine of any kind to lie in steaming manure is not wise, and the practice should be substituted by that of allowing range in the open air during the day and housing in a dry, well-bedded pen at night.

British 1914 Wool Situation.

At the October wool sales, London, England, wools suitable for Khaki and other Government clothes advanced 20 to 30 per cent. over July rates, while greasy, cross-breds ruled 10 to 15

per cent. dearer. Merino wools declined. Buying was practically all for the home trade. Prior to the auctions, much wool was said to have been bought for Germany by neutral countries, but the Government checked this by posting the following proclamation in the sale room:

"The Government desires it known that the exportation of raw sheep and lambs' wool from the United Kingdom to other than Russia, Belgium, France, Spain and Portugal is prohibited. The Government also desires to make it known to buyers of wool for exportation to other destinations that it is at their risk, as circumstances may make it necessary to extend the scope of this prohibition at any moment."

This notice was supplemented later by the auctioneer announcing in the middle of the sale that the Government now prohibited the export of raw wool from England to all countries. As the Canadian woollen mills draw large supplies of raw wool from Great Britain, the industry in this country will be seriously affected for a time.

FARM.

War and the Traction Ditcher.

Editor "The Farmer's Advocate":

Can our Government withhold payment of

moneys for tile drainage (under the present Drainage Act) because of the war situation? Upon the introduction of a Buckeye Traction Ditcher in our vicinity a couple of neighbors and myself took advantage of it and the Drainage Act to drain our farms. Upon the completion of the first neighbor's drains he put in his application to the Council for one thousand dollars. The Council forwarded same to the Government, and after waiting about two months they received word back that the Government could not pay it owing to the war.

I have no doubt that our Government is passing through an extreme crisis which will try them to the utmost, and the great problem will be to know where to tighten the reins. But why block a good thing almost at its very outset, a thing that has been agitated for so long (but we farmers were unable to take advantage of it owing to the difficulty of getting men to put the drains in) and now that the traction ditcher has come to our rescue, it seems to me to withhold paying drainage moneys at the present time would be a breach of good faith.

Ontario's greatest asset is agriculture, and the cry is going up in every direction that we should boost our agricultural resources, we should produce more if for no other reason than to meet our own obligations in the present war crisis. On whom will the greatest burden of the present