

contributed to the buying and paying for of an excellent 200-acre farm. Mr. Simmons informed us that he feeds barley and oat chop right through the summer. He considers it necessary to a profitable milk flow. In connection with the grain, he also feeds corn ensilage or soiling crops, and this year he is planning to put up a new cement silo in order that he may be sure of having sufficient silage for feeding all through the summer weather. "I claim that farmers should have silage enough to feed it all the time," said Mr. Simmons.

A few weeks ago we told in Farm and Dairy of the exceptional success achieved by Mr. Albert Twiss and Mr. John Robinson on muck farms. Both of these men are extensive milk shippers to the Tillsonburg condensory, both of them have made notable successes of dairying, and both of them believe in grain and silage as supplements to the summer pasture. Mr. Robinson has two big silos, one of which is intended principally for summer feeding. In addition, about four acres of sweet corn are grown for fall feeding.

More Practical Evidence

Mr. John Anderson, near Tillsonburg, milks from 18 to 25 cows, which average him at least \$100 a year at the condensory. "You have to feed good to get that much per cow," remarked Mr. Anderson on our representation. "I feed oats and barley crop, which we buy, along with corn ensilage the year round. Does it pay? Why certainly, or I wouldn't keep it up."

We doubt it any farmer in Ontario has a more productive herd than Mr. Geo. B. Ryan, whose 10 cows in 1914 averaged him over \$150 each at the condensory. Mr. Ryan, like most of his progressive neighbors, feeds grain the year round and has a summer silo. He believes that the only way to make cows profitable that have the inherent ability to produce a large quantity of milk, is to feed them well all the time.

We find it so everywhere. Summer feeding in our best dairy districts is becoming as well fixed a habit as is winter feeding in all districts. True, it means more work to stable the cows and feed them twice a day, but the most of us do not object to work if it is profitable work. A judicious combination of grain and roughage as a supplement to pastures is profitable, as hundreds of practical men will testify.

Contagious Abortion in Cows

Dr. H. G. Reed, V. S., Halton Co., Ont.

THIS disease has been a source of great loss to the dairy interests of the country. It differs from ordinary abortion in that it is exceedingly contagious. It is produced by a germ—the bacillus of abortion. The vitality of this germ is very great. It will live for months in a healthy state in the genitals of a cow that has aborted, or in the sheath of a bull that has been used to a diseased cow. The discharge from the vagina of such a cow or the service of such a bull is almost sure to set up the disease in healthy animals. When the germ gets an entrance into the system of a cow it works its way into the uterus, womb and sets up a specific form of catarrh which leads to the death and expulsion of the foetus.

At one time it was thought that the germ always got into the system of a cow through the medium of the generative organs, but it has been

demonstrated by experiments conducted by a commission appointed by the British Government that the disease is often produced by animals getting the germ on their food and the disease developed through the stomach. Cows which have aborted while on p-sture and the discharge from the genitals dropping on the grass and eaten by healthy cows will produce the disease in these animals.

Symptoms

The disease usually occurs between the third and seventh month of pregnancy, but is liable to occur at any stage. The udder will become enlarged, the lining membrane of the vulva will become reddened, with a dirty red discharge from the vagina. The foetus as a rule is born dead. A persistent discharge often remains for a considerable time, in consequence of which the cow may fall off in flesh and become stilted.

Treatment—Preventive

If the act of abortion once begins no medicinal or any treatment can stop it. When abortion has taken place the foetus and afterbirth should be buried or burnt, all discharges carefully cleaned up and the surroundings sprinkled over with a good strong solution of carbolic acid or creolin. Also the external genitals, the tail and hind-



A Shady Retreat for Cattle is an Important Consideration in Arranging the Ideal Dairy Farm.
—Photo on the farm of T. H. Dent, Oxford Co., Ont.

quarters of the cows should be carefully washed and disinfected. The genitals should be flushed out every day with a two per cent. watery solution of carbolic acid or creolin in order to destroy any germs in the vagina or womb. This should be kept up till any discharge from the vagina has ceased. Bulls should have the sheath flushed in the same way after having served a suspicious cow, and a bull newly brought into a section should be treated in order to make sure against contagion. Bichloride of mercury of the strength of 1 to 1,000 in watery solution is often used in place of the drugs already mentioned.

No healthy animal should be allowed to eat any fodder, whether in the barn or at pasture that was contaminated by the discharge from the genitals of an animal that had aborted.

Treatment—Curative

In speaking of curative treatment, it is well to bear in mind that this disease usually ceases to occur in a herd after a period of from one to three years. The cows seem to become immune to any further attacks. Because of this fact, certain drugs have been given credit for doing what in all probability was due to care and the natural immunisation of the cows. The internal administration of carbolic acid has been thoroughly tried out by the British commission already referred to, and found to be worthless as a curative agent.

The latest curative agent that has been recommended is methylene blue. One teaspoonful given to each cow on her food once a day for

five weeks. It is claimed that if there is any abortion in a herd that this treatment will arrest the progress of the disease and prevent healthy animals from contracting it. As there is a lot yet to learn about controlling this malady, it might be well to try the new cure, and as our knowledge increases, better systems for controlling it will no doubt appear.

A Dual Purpose Farm

IT is a dual purpose property. The house faces a street of the pretty town of Bloomfield. One hundred yards to the rear of the house is the barn. Beyond that lie the fields. It is the happy lot of Mr. Edward Purteile to enjoy this combination of town and rural life.

Mr. Purteile is a dual purpose farmer. His canning crop furnishes a large part of his income; his pure-bred cattle are another lucrative source. He keeps dual purpose cattle, too. His ideal dual purpose cow is the large, straight-backed, square-rumped Holstein. "You don't get huge yields of milk from first-class beef animals," reasons Mr. Purteile. "Either the beef or the milk must be a side line. There is no doubt that the combination making milk the specialty and beef the side line is the most profitable. For this purpose where can you get the equal of the Holstein? As milk producers they stand at the top of the list and their beefing qualities deserve more consideration than they usually get."

A Change to Pure-Breds

Until about 10 years ago Mr. Purteile kept a herd of grade Holsteins. He decided there was money in Holsteins, and bought a registered calf and a cow. He has never bought on a large scale, and the majority of his herd are the progeny of his original purchase.

The profits in pure-bred Holsteins have been fully equal to expectations. "I have invested \$195 in pure-breds," Mr. Purteile recently told a representative of Farm and Dairy. "I have sold \$1,350 worth of stock, and the cows in the barn are worth over \$5,000. I consider that a paying proposition."

Of course, these figures do not take into account the investment on or present worth of their son of King Segis Pontiac Alcarra. And then there is the milk. Says Mr. Purteile: "Beside the return from sales of stock, I have to credit my pure-breds with the profits from the dairy end of the business. The net profit per cow has increased considerably since I discarded grades."

Cooperative Breeding Followed

Mr. Purteile and his neighbor, Mr. Leavens, have always cooperated in the ownership of sires. This lowers the cost to each and consequently they can afford to have better animals than would have been profitable if a sire was maintained for each herd. Recently they united with another neighbor and purchased a son of King Segis Pontiac Alcarra at a cost of \$2,000, and they made a good investment. Such enthusiasm, energy and cooperation spell success.

Feeding of the ensilage may take place any time after filling, but if it is not to be used for some time it is well to add a covering of cut straw and some weighty close material to exclude air; this, of course, provided straw is more plentiful than ensilage, which is not always the case.

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