

## Will Cattle Eat Sweet Clover?

### They Do at Manitoba Agricultural College

POSSIBLY no other plant has been more the subject of dispute as to its economic value than white sweet clover. That it will produce heavy crops of hay is admitted by all. That it possesses much feeding value for all animals that eat it is also universally conceded. That it is a comparatively hardy crop is attested by the fact that it will frequently reseed itself and live in the same spot for years. That it has possibilities as a weed fighter is accorded by those who know its vigor of growth. But as to whether it is sufficiently palatable to cause animals to eat it—that's the question.

The Manitoba Agricultural College has been experimenting with this crop, and they are now able to say that their cattle have both been pasturing upon it and heartily eating it as hay. The advocates of sweet clover contend that many animals must acquire a taste for the plant, and after that they are fond of it. This seems to have been the experience at the College this year. In the pasture field was an area of sweet clover, and another area of alfalfa. During the early summer the cattle pastured down the alfalfa but scarcely touched the sweet clover. The latter was then cut for hay. Later in the season the alfalfa was short in growth, and the green second growth of sweet clover was attacked by the cattle with the result that after they had acquired the sweet clover habit they pastured continuously upon it for the remainder of the season. Whether or not the same cattle will eat sweet clover with the same avidity next spring will be watched with interest. The College has never had any difficulty in having animals eat the sweet clover hay.

It may be an interesting statement to add that the particular patch of ground used to grow this sweet clover has been an unsatisfactory plot that had refused to grow grain and corn, and was sown to sweet clover in an effort to find some crop that would succeed.

## Silo and Ensilage in B.C.

### The Opinions of Two Milk Producers

THE merit of the silo is a live question in British Columbia. Opinions on the question in the past have been divided, this because the climate is not ideal for the growth of corn. But the evidence for the silo seems to be strengthening. In a recent issue of the Fraser Valley Milk Producer's News, a small monthly circulated by the producers themselves, two dairy farmers, W. S. Hawkshaw, Chilliwack, and A. H. Menzies, Pender Island, give their experiences with the silo. Mr. Hawkshaw says:

"My silo is 12 x 31 feet. I used 2 x 6-inch double-dressed lumber 30 feet long. My foundation is a circle of concrete one foot above the ground. The edges of the lumber are concave convex, forming a knuckle. I used four standard 30 feet long. These were 4 x 5 inches, to which the hoops are fastened. It cost me \$100 for lumber, iron and cement, and we put it in our cellars.

"The silo paid for itself the first year, because I was a little short of hay and it would have been necessary for me to have bought six tons, which was selling at \$18 per ton. I fed twenty-seven cows 40 lbs. per day, 20 lbs. for a meal. We started to feed on December 9th, and used it until May 25th. There was 1,041 pounds wasted after we had taken the few inches off the top. It took two days to fill by the use of the blower. Quite a few silos fell in or got blown down during high winds in the early spring. It stands

to reason, when the silos are empty, if not braced they must go down. Brace them well.

"I have sown five or six acres of oats and peas for oat-hay for winter use, or if the grass gets dry and short just at haying or after, instead of cutting the green stuff and feeding twice a day, I hope to cut up some and put it in the silo, so that I will be able to feed silage until the corn crop comes in. I feed my cows about 25 lbs. hay to 40 lbs. silage and 60 lbs. turnips per day as long as they last; also, we feed bran and oat-crop. I use Northwest Dent and Compton's Early. The Dent is a fortnight earlier than the other, but Compton's Early has more foliage."

Six or Seven Years' Experience.

Mr. Menzies has been using a silo for six or



Photographed on a Country Road in Western Ontario.

Dr. J. E. Hett, Waterloo Co., Ont., is the third vice-president of the Ontario Independent Labor Party. He takes the unique method illustrated above of calling attention to the relationship which he believes should exist between the laboring class and the farmers.

seven years and is therefore an authority on the subject. He says his experience with the silo "has been such that we do not know how any dairy farmer can get along without one. Our silo was built of 2 1/2 x 8-inch cedar staves 28 feet long. These were double-dressed, leaving the staves a little over 2 inches thick. The edges were not bevelled, as we find the hoops draw it together much tighter when not bevelled. The silo is 12 x 28 feet, and being cut out of a side-hill of shale has natural drainage. We have always used corn for silage. The first year we put our crop in a little on the green side, and the silage was rather tart. We have never used any water, but a year ago last fall the corn was rather ripe, and water would have helped it. As we found the silage mouldy in spots; possibly better tramping would remedy it.

"The earlier kinds of corn make the best silage in this part of British Columbia, as there is more grain in it, and we get the crop in before the wet weather in the fall. It takes from four to six acres to fill the silo. I use early-maturing corn, such as Minnesota 13 or Northwestern Dent; these kinds' ripen early, though they do not produce as heavy as Longfellow and Angel of Midnight. We find that corn almost ripe for seed, or a little over-ripe for table use, put into the blower and well tramped, does not need water.

"We are very much in favor of the silo."

A favorite crop for the silo in some sections of British Columbia is common red clover. The clover is cut when green and put directly into the silo. Clover heats tremendously and the water it is when ensiled the better. If the least bit dry a stream of water is run into the blower.

## Barn Cleanliness—Milk Purity

### Or are Clean Utensils More Important?

FOR many years it has been the custom of cities to regard the bacterial content of milk as an index of its wholesomeness. In this way cities have set various numbers as standards, and milk containing a greater number of bacteria per c.c. than that allowed by the city is rejected. In order that dairymen may be able to control the bacterial content of their milk so as to enhance its value on the market, many experiments have been carried out to find what effect the various dairy operations have on the bacterial content of milk. One of the factors usually spoken of as important by those who would reduce the germ life in milk, is that of the construction and condition of the cow stable.

A few years ago, however, in an experiment being carried on by the New York Experiment Station to discover, if possible, the number of bacteria contributed to the milk during the various operations, results showed that comparatively few germs were introduced which could be traced in their source to the barn condition. This experiment gave such surprising results that an independent experiment was instituted at the Urbana Station in Illinois. Though these experiments were carried out in a different part of the country in three quite dissimilar barns and by a different group of men, the results were found to accord closely with those obtained in New York.

In Bulletin No. 199 of this experiment station, the results of the various experiments carried on are given in detail, together with methods of study and media used. In this experiment three barns of different states of cleanliness were used. In barn No. 1 almost ideal conditions for the welfare of the cattle were supplied. There were approximately 900 cubic feet of space and nine square feet of window glass per cow. The construction of the barn was excellent, the floors kept clean and flushed down every day; the cows were never allowed near the manure heap and had their flanks and udders wiped down before milking. In barn No. 2, which would be considered good in construction, in contrast to the "excellent" that is applied to No. 1, 800 cubic feet of air space and nine square feet of window glass per animal were allowed. The walls of this barn allowed dust to collect, and although the floor was cleaned regularly, it was not flushed with water. There was not the same time spent in cleaning the cows before milking. In barn No. 3, the floor was of dirt and there were no gutters. The cows were stanchioned only during the milking. The floor in the barn was covered with straw once a day, but the manure was allowed to accumulate on the floor and was removed from the barn only once a year. Cobwebs and dust were plentiful. This barn would be classed as dirty, and it is doubtful whether the milk from it would be admitted to the market of some cities.

### Results.

The average germ content of the milk from barn No. 1 for the entire investigation covering two years with about 60 cows was 2,339 bacteria per c.c. In this connection it would be interesting to note that one certain cow added much to the total germ content by producing milk with an abnormal high number of bacteria. They were contributed by her udder. Had she been omitted from the calculations, the average would have been reduced approximately 1,000 bacteria per c.c. Barn No. 2, which was not supposed to be kept so clean as barn No. 1, had an average bacterial content in its milk of but 920 bacteria per c.c., while barn No. 3, where the conditions of the barn would probably have banned