

Silage for Western Farmers

Season of 1915---Corn and other crops---Kinds of Silos.
Difficulties and Future

The season of 1915 was a discouraging one to silo owners on the prairies. Some who had a small corn crop and no silo decided that the risk and expense of a silo was too great if Providence was bent on blackening the corn crop every time it got a good start. At least twice during last season the corn crop was frozen, but the men who have been growing corn longest and have silos for taking care of it seem little discouraged because they know so well the benefits of silage of some kind that the failure of a crop one year will not make any serious difference. In many cases it merely meant the substitution of some other crop for corn silage for the time being so that there was a big loss, considerable and valuable experimental work was done in a practical way. As one farmer at Belmont, Man., said: "1915 was a very unusual season and my experience was that I had no silage" as my 25 acre corn patch was a total failure, but I am not discouraged, it may not happen again in a decade or longer." I have corresponded with and talked to a large number of farmers who have fed silage for some time and who suffered more or less seriously last year and they all are just as firm believers as ever in silos and silage crops.

Most of the silage yet made in Western Canada has been from corn tho considerable experimental work has been done in various places with other crops. In fact a large amount of valuable experimental work could be done in making ensilage of various crops. Little is known as yet regarding the best crops for silage under our varying conditions and of the proper method of saving them in order to get the greatest food return. Were we farming in a warmer climate where corn was a regular assured crop we would be much nearer the solution of this problem tho even then we would still have many things to learn.

Other Silage Crops

Wherever corn can be grown successfully or fairly so it is undoubtedly the cheapest feed since a yield of ten to twelve or more tons per acre can be secured on land that might otherwise lie as bare summerfallow. The cultivation necessary to produce a corn crop and the smothering effect secured leaves the ground cleaner and in as good or even better condition than as summerfallow. Experimental work has well demonstrated this in more than one case throughout Western Canada. Corn is also exceptionally well adapted to feeding a great variety of stock for different purposes. In Southern Manitoba we have reached the stage where corn is a tolerably safe crop and as we develop hardier strains the march of corn will proceed gradually north and west. Already it is pretty well established in parts of Alberta. In the meantime other crops are being tried out and some with good success. J. D. McGregor, of Brandon, says: "1915 is the only year we have had any difficulty with our corn and we used barley that was pretty badly frozen and would have yielded if threshed between 15 and 20 bushels of thin frozen barley. This made excellent silage and our milk cows are in much better condition than we have had them when feeding corn silage." At the Lacombe, Alta., Experimental Station the bulk of the silage has been made from peas and oats and from green oats alone, but when the oats are in the late milk or early dough stage. Corn growing has not been very success-

ful at Lacombe and G. H. Hutton says: "This silage has with us been more satisfactory than the corn silage we have been able to make, because the oats had reached the proper stage of maturity, while in no season has the corn reached that stage." The cost of producing a pound of butter at Lacombe with this feed was reduced three cents below any other feed combination used.

The operator of a large farm in Central Alberta who put up a silo last year says: "Last fall we filled our silo mainly with green oats. Some alfalfa was put in and came out in good shape, but mostly oats were used. Our advantage in handling oats is the ease of handling when filling a silo. The crop can be cut with the binder and the sheaves are very easily



Filling a stave silo. The filling problem in a busy season is one of the most difficult, but with gradually increasing use of silage growing facilities, these are wood stave silos, not too expensive and very efficient. Note the straight pipe and that the wagons are close up.

handled. It was necessary, however, to wet the oats well as they went in and to tramp the stuff more than is the case with corn. Oats, you know, are hollow stemmed and hold a lot of air. Plenty of water preferably supplied with a hose right into the blower spout and not less than three men tramping the cut oats will get rid of nearly all the air and produce the proper kind of fermentation." The same writer adds: "From such experience as we have had I can say that a silo here on the prairies has the same decided advantages that it has anywhere else where cattle are fed in winter for either beef or milk, particularly for milk. Silage is the most easily grown and harvested and the cheapest succulent feed that we can use in winter. I would say in reference to using silage for dairy cattle that if one's quantity of silage is not sufficient to last all winter that I would not open the silo until such time as I was sure that I would have plenty of silage to feed right thru until there was grass. There comes a time along in March and April when hay and green feed, hitherto the fixed stand-bys in the way of feed, become so dried out and tasteless and cows at the same time seem to have a hankering for something that is juicy, that I would by all means save the silage at the fore end of winter if I was likely not to have enough in order to tide over this period of the winter season. Cows always fall away seriously at this time and need succulence badly. The silo is the only means I know of that will enable a man to save his feed so that cattle have everything there is in it and do good on it. Silage is great stuff on which to coax cows and other cattle to eat a lot. Of course some cattle owners don't want their stock to eat too much, figuring on bringing stock out about April in what they call 'spring condition.' Perfectly fitting of course to the man who isn't contented in the spring unless he has a few head 'on the lift,' but not a profitable condition for cows either coming into milk or that have been in milk all winter."

The Alberta Department of Agriculture has used corn where it can be grown successfully and in fact to a considerable extent as far north as Vermilion. Corn and green oats and oats and peas alone, and corn and alfalfa mixed have been used, all proving satisfactory. Corn has been preferred, however, not only on account of greater weight, but its value as a clean cultivated crop in a rotation has to be considered.

Only one other correspondent had used anything but corn, i.e., about six feet of rye in the silo one year. It proved no good, apparently being cut too ripe with little or no sap left in it. The cows would not eat it. Rye is coarse and poor at any time and could scarcely be counted on as a satisfactory feed for silage under any conditions.

Chief Factors in Silo Building

The chief factor entering into the saving of ensilage is a silo that is air tight and will remain so from top to bottom. Silage is preserved in much the same fashion as fruits and vegetables. Fermentation of the silage is caused by a germ which uses up the air in the silage which then remains in a preserved condition until again exposed to the air. A silo full of leaks only adds one more to the many leaks already existing on many farms. Consequently the importance of the very best kind of structure. The greatest capacity in a circular building is next the walls, and since silos are now practically all circular the importance of having a first class structure cannot be over emphasized.

Silos in the West are built either of wood or cement and both kinds have their advocates. So far there appears to be more wooden silos, partly on account of the smaller cost and partly on a belief that the severe frosts do not strike so badly thru wood. The cement silo has the advantage of solidity and durability. Hot dry winds and incessant sunshine can neither blow it over or dry it out and no silage can spoil thru cracks between the staves. As stated, however, wooden silos have so far gained popular favor to a greater degree than others and seem likely to stay more in public favor for some time at least.

Size of Silos

Whether a man can afford to build a silo of course will depend on how many cattle he has, what kind and what his other facilities for securing feed are. Where silage is used for feeding dairy cattle the benefits are usually more directly felt and a silo can be justified for a smaller number. The cost will vary greatly, running anywhere from \$125 up to almost \$500. One or two men we know of have built silos for the former amount, tho of course they are not so highly finished and on the whole not generally as satisfactory as more expensive ones. One extensive stock raiser has four stave silos that cost \$400 each, including a four foot cement base, but a large number of men in Manitoba have built their wooden silos at from \$250 to \$350, with probably the larger number about midway between these figures. With a silo running around \$300 to \$350 the consensus of opinion among silo owners seems to be that about fifteen cows up with a few young cattle should be kept before the above cost could be justified. Some with more expensive silos say thirty head, but others put the number as low as ten to twelve, tho this would be where dairy cows are kept.

The size of the silo will then depend on the number and kind of livestock kept and the length of the silage feeding season. It is usually conceded a certain amount should be fed off the top each day to keep the silage from molding. Conditions vary this, but usually

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Stave silo on farm, Turner's farm, Carroll, Man. Stave silos are solid and durable but freeze rather badly. This one is partly underground, making that part like a 'pit' silo.



Concrete stave silo. There are a few of these in Manitoba and they have given good satisfaction. Better stock or better well concrete silos are really but fairly frost resistant and satisfactory.