

and elevate it to the top of the silo and power to drive such a machine. There are two types of cutting box in use, and it will depend on the power available which is the better to use. The cutting box with endless chain elevator is the cheaper kind and can be run with a two-horse tread power or a small gasoline engine. It works much more slowly than a blower and therefore can be kept going with fewer men and horses. This kind of cutting box is best for a man who is farming in a small way and has no powerful engine. The blower type of cutting box is much faster and more satisfactory where there is work enough to justify it. It requires a large engine (15 h.p. or more) to drive it, and a good strong force of teams drawing in corn to keep it busy. Wherever a farmer has an engine for ploughing or threshing it will pay him to get a blower on account of the saving of time it permits. When silos become more common it will be possible for threshing machine owners to run a silo-filling outfit as well. It would prevent much lost time, as silo-filling can be done when it is too wet to thresh from stacks.

The corn should be well mixed as it falls in the silo. The draft from the blower carries the heavy stalks to one corner and the leaves to another. The leaves will mould if left by themselves and should be mixed among the heavy parts. There is not much advantage in tramping the bulk of the corn in a silo. So great a weight comes on it that the tramping makes little difference. It is better, however, to tramp around the edge as the friction of the sides of the silo hinders settling and tramping helps to make the settling more uniform. It is also advisable to tramp the last few feet at the top. A silo cannot be filled completely all at once. To get the greatest quantity in, it should be filled once, then allowed to settle for a few days, then filled again, and even the third or fourth time there will be room for a lot more. Different coverings for the ensilage are recommended, such as wet cut straw, etc. Anything that is solid and airtight is satisfactory. There is nothing better or more convenient than the corn itself. If the top is tramped and left alone, about six inches will rot and provide an airtight protection for the balance.

USING ENSILAGE.

The silo is emptied from the top downwards. The surface of the ensilage should be kept as nearly level as possible except that it should be a little lower around the edge. This will lessen the danger of freezing in cold weather. It should be lowered uniformly, and feeding from it cannot be discontinued once it is begun or the top will spoil. If any ensilage freezes to the walls it is not injured and can be fed as soon as it thaws out.

Ensilage may be fed directly to cattle just as it comes from the silo. It is better, however, to mix it with cut straw or hay in the proportion of about six pounds of ensilage to one pound of hay or straw. A full-grown cow will eat from 30 to 50 pounds of this mixture per day. The meal to be fed may be thrown on top of this mixture after it is in the manger. As both ensilage and straw are rich in carbohydrates, the fat- and meat-forming constituents and deficient in proteids, the muscle and milk-forming constituents, they do not constitute a properly balanced ration for any class of stock, and particularly so for growing young stock and milking cows. To give best results, they should be fed in conjunction with clover and alfalfa hay and bran or oat chop. These latter feeds are higher in proteids and help to balance the highly carbonaceous corn and straw.

COST OF CORN EQUIPMENT.

The cost of suitable equipment for corn-growing and ensiling in Manitoba on a moderately large scale (15 to 25 acres annually), assuming that seeding is done with a grain drill and that an engine is available, is as follows:—