

you will find the benefit of it. The interior divisions should also be air-tight; though this is not absolutely necessary; but to secure impermeability to the interior divisions, it will be enough to make them of two ranks of boards with felt-paper between them. I say that this is not absolutely necessary, because when one of your compartments shall have been emptied, the other will done fermenting. Still, if your division is not air tight, the silage will lose some of its quality by the entrance of air, which, though it will not utterly ruin it because the fermentation is already complete, will make it flat—*éventé*—and diminish its value. Air-tight divisions are not expensive to make, and I think they had better be made so.

It remains to speak of the silage properly so called.

At what season must we begin to fill the silo? As much as possible, we should begin to fill soon enough to finish before the first frosts.

Frost is seriously detrimental to maize. It destroys almost completely the nutritive value of the leaves, and very much diminishes the value of the stalk.

On the other hand, according to the opinion of men of great experience, corn is in its richest state for silage, when the grain has passed the milk-state, and is beginning to harden. Judging from this opinion, which I have every reason to think well founded, it is of great importance to sow corn as soon as the soil is warm enough, and the danger of spring-frosts, in all probability, passed away. Sown at this period, one may hope that the maize will have arrived at the desired degree of maturity at the end of August or the beginning of September.

I will here give you the reason why I advised a diminution in the quantity of seed, and why I shall probably before long advise an increase in the distance between the rows. The nutritive value of silage depends greatly on the quantity of ears mixed up in it. Now, in thin-sown corn, more and larger ears are formed. At the same time, the quantity of forage is not lessened, because the stems having more room grow larger and longer, and compensate largely by their weight for the diminution of their number.

Cutting the corn $\frac{3}{4}$ to $\frac{1}{2}$ an inch with the chaff-cutter seems to me the right proportion. I believe that I have proved that reaping the corn in the field half a day at least before chaffing it, is a good plan. These few hours of exposure to the sun and air make it lose its first freshness, and seem to prepare it to make *sweet* silage.

It was this very last season that, following faithfully the principles that rule elsewhere, even in the most advanced districts of the United-States, I succeeded in making silage that might be called *sweet*, although it was thoroughly fermented. This year, I had the corn cut and left in bundles in the field for at least half a day before carrying it to the cutter, and I attribute the absence of acidity and the other good qualities of our silage this year to this little operation. I believe the maize lost its first freshness, its moisture too perhaps, which is always excessive, and by this mode of proceeding we succeeded in making *sweet* silage. *Sweet* silage does not mean silage that has no acidity, that would make it insipid for the cows. They would eat it perhaps, but they would not like it so well as if it had a little piquant flavour. Silage, in general, has had too much acidity. And on this account, I lay some stress on the apparently trivial plan of leaving the reaped corn on the field for some time before it is taken to the cutter, because I believe it to be a point of great importance. Indeed, I cannot account for our not having been able before this year to make silage perfectly fermented and yet *sweet*.

I saw, to-day, some *sweet* silage, but it had not fermented. It was among the samples exhibited.

In some places, as you know, chaff-cutters are used with

an elevator attached which carries the corn into the silo as fast as it is out. It is a great economiser of labor, and does not require any great additional power to work it. It is very certain that those who can arrange so that their chaffed corn shall be thus carried into the silo, without being touched by the men, will save a good deal by it.

I believe that the general practice to day is to fill the silo only at intervals, and to allow each layer to heat up to at least 100° F., before adding the next layer, which requires, generally, 48 hours.

But, lately, I have seen the theory promulgated that it is not needful to fill the silo by intervals. This thesis is sustained by a professor in one of the agricultural colleges in the States. Until he has given irrefutable proofs that he is right in his conclusions, I would rather preserve the custom we have of only filling at intervals; for the first trials we made of filling the silo at once, did not give us full satisfaction. There was certainly more acidity in it than there is in ours of to-day when we practise the method of leaving intervals when we are filling. That is why I advise those who have a large silo to divide it into three, if possible, so as to be able to work at it every day, and to finish as soon as they can; for at that season of the year, there is great danger of frost. If you can by any means fill the whole silo from above, I advise you to do so, that the door may be closed even before the filling up is begun.

I have always found the door the most difficult point to close hermetically. Since we have filled entirely from the top we have had no loss at the door-way.

Before beginning to fill in new layers, always look carefully at the corners and sides, and fill up the crevices which may have been formed there by the settling (*fouillage*) that will have already begun.

When the silo is full, let it heat up to 135 F., or even to 140 F., then put on the cover, which may be of rough planks, and put a layer of 7 or 8 inches of earth on the planks, so as to thoroughly exclude the air.

No pressure is wanted; this question is now completely settled.

Any other kind of cover, as long as it is air-tight, will answer as well as a layer of earth.

I will now repeat what I said at Three Rivers: the silage need not even be covered. As to those who want to use it at once, they will sustain no loss. Only, you must understand, that, at first, the silage will have about the same flavour to your cattle as the maize as it stood in the field; but there will be none spoiled.

Those who are not obliged to use the silage at once, can also leave it uncovered, but in that case, they must put up with the loss of the upper layer 10 or 12 inches deep. There will be, at the top, a layer of that thickness of carbonised silage. But when that layer is formed, the rest will be as perfectly sound as if it has been covered.

Thus, each will have to decide whether it is better worth his while to lose a layer such as I have described, or to take the trouble to put on a row of boards and cover it with earth or any other material that is air tight.

Now, we must not forget to water this layer of earth during the settling, because the silage does not always settle equally. If it do not, then crevices are formed, and if care be not taken, the air will get in through them, and you will have places on the top of your silage which will be a little damaged.

When the settling has finished, there is no need of further care; the silage can wait till it is required for use.

I forgot to mention one thing in its proper place: when filling the silo, there is no need to tramp it. It is enough to spread the chaffed corn as fast as it arrives, so as to leave no vacuum, the settling will be brought about by the fermentation