

If it is true that the destructive fermentation in ensilage is due not only to oxidation but to the generation of organic germs not dependent upon oxygen for their vitality, and that a definite high temperature can be attained, the less will be the loss and the more natural the product. At any rate, I am determined to suffer as little loss from oxidation as possible. I am not afraid that I shall not get heat enough and soon enough, to kill any organic germs, real or imaginary, without the aid of atmospheric oxygen. I believe that the silo should be filled as rapidly as possible and weighted very heavily. If the fodder is partially cured it will receive any amount of weight without pressing out the juice to settle at the bottom of the silo, as I notice some persons have complained about.

There is another point in connection with partially cured ensilage worthy of consideration. Many small farmers, especially in New England, are in the habit of raising from one to five acres of corn as a rotation crop. Their field of corn is generally a measure of the amount of manure they make. They seldom buy fertilizers or much grain. It seems to them a great loss to cut this corn green, only a few days before the ears will give them the golden harvest which alone they have been in the habit of regarding as of much value. If they could have the ensilage and the grain too, they would be speedy converts to the silo. Now, I believe this is just what they can do. In New England varieties of flint corn are generally raised. The ears are small in comparison with the large dent varieties of the West. Where such small areas are planted, the ears could be plucked as soon as the kernels are "glazed," and proper facilities provided for curing with small additional cost. All small immature ears could best be left on the stalks.

The stalks and most of the foliage are yet green and full of sugar, starch, gums, etc., just in condition to make excellent ensilage, every pound of which would be eagerly eaten. Nothing is lost for food. The yards and manure cellars are not filled in the spring with long, coarse stover, which usually amounts to a large portion of the crop. And even in the West, where the difference in varieties of corn requires it to stand longer in the field, I think the large, heavy stalks will be found to contain sufficient juice after heavy frosts to make an excellent quality of ensilage. Under high culture, such as will produce a hundred bushels of corn per acre, it is possible that this method of food production will be thought by some to be the most economical. Those who raise sweet corn for market or canning certainly can find no better place than the silo for their green stover.

There are several facts in connection with the feeding of green fodder in the summer, which all persons who practice the soiling system must have observed, and which I think may have some bearing on the subject of partially cured ensilage. It is well known that animals are more fond of green forage which has been cut several hours before feeding and allowed to wilt. They eat more of it, digest it better, and of course give a larger return. In rainy weather, however, when forage is not only unwilted, but covered with water, it is not eaten with so much relish, is digested with discomfort, and the yield of milk falls off a tenth. Wet clover we know is specially liable to produce acute indigestion. I will not say now that the conditions of wet ensilage and wet soiling crops are exactly analogous, but I have an impression that too much water in the silo is a violation of one of the proper conditions requisite to perfect ensilage. Without further experience, I should say, keep all water, whether from the heavens or the earth, out of the silo.

#### WEIGHTING AND OTHER CONSIDERATIONS.

Coarse cutting I think of some importance. It facilitates rapid work, it requires less power, and it gives the minimum exposure of surface to the air. It does not admit of solid treading, and hence it diminishes somewhat the capacity of the silo, unless a grate be used. Heavier weighting should be used than with finely cut ensilage. Forest leaves make a most perfect covering before placing the planks. They pack down very closely, and are as impervious to the air as anything can be. They cost nothing, and make good bedding for the stock.

Much ado is made about the labor of weighting a silo. This is unnecessary. It can and should be done, not only without extra labor, but with a positive gain; *i. e.*, in a manner to utilize another necessary labor. Dry earth is needed as an absorbent in the stable all the year round, but it is seldom used in the winter, partly from neglect and partly from scanty storage room. Farmers who buy shorts and chemical fertilizers have many sacks about the premises. These can be rapidly filled during summer with dry loam, and placed under cover near the silo. At the time of weighting they can be handled rapidly, and piled up to any height over the planking. Thus storage room is found for a large quantity of good loam in the proper condition and place for winter use. In absence of bags, boxes or barrels can be used, or the earth can be dumped in a mass over the silo. Fortunately rocks are not accessible on all farms, but earth always is.

The whole subject of ensilage is one of great importance. On the whole, it ap-

pears to me to mark the greatest step in agricultural progress which has been in any age. The approval it has received, in spite of the many trials made by persons little accustomed to exact processes, indicates its very general adoption at no distant day. People will soon learn how imperative are the conditions of success, simple though they be, and a poor sample of ensilage will no more be charged to the system than a worthless jar of preserved fruit is now charged to the canning system. Poor Dr. Bailey has been made the butt of much ridicule and censure. His honest extravagancies have hardly been realized yet, but I do not feel so certain that they may not yet be very nearly so. His book has done no harm, to say the worst of it. Nothing short of such enthusiasm would ever awake the dead. I believe he is more nearly right than that other Bourgeois, at the opposite limits of Massachusetts, who denounces ensilage, early and late, in no mere moderation.

There may be no objection to making hay a unit of feeding value, since every farmer, no matter how limited, has from experience more or less knowledge of its value; but it should not be forgotten that even in the strongest corporation there may still be preferred stock. In the much exhausted regions of our country, hay is no longer a free gift to the agricultural plunderer. As a cultivated crop, on land adapted to varied products, it is generally regarded as a relatively expensive forage. Progressive farmers have long felt the need of some economical substitute. There appears to have been nothing so generally adopted as the maize plant. It more certainly resists the accidents of climate than any other plant; it is a great cropper; it can frequently be worked as a second crop; it is greatly relished by all animals; it is raised with moderate manuring, and it is easily cultivated. Its use as a summer soiling crop is universal in all milk-producing districts. And yet, when its cultivation for this use began to be so general as to attract public attention, it was hardly less vehemently denounced on theoretical grounds than is ensilage today. Green corn the year round! That is what captivated the minds of the dairy people.—*o. c. w. Providence, R. I. in Country Gentleman.*

#### BUTTER MAKING.

W. H. Lynch, whose dairy apparatus in the Machinery Hall at the late Exhibition excited so much attention and called forth so many favorable comments from competent judges, was yesterday at the Royal. He has lately been in Truro assisting in organizing the Dairymen's Association of Nova Scotia, and has de-