

of curing fodder, called *Basilage*, and having last winter visited the farm of Mr. Bailey at Bellerica Mass. where I saw his silos and the stock fed on ensilage, I decided this summer to make a small experiment on the method myself.

Having a couple of acres of red clover of last year's sowing which would be ready to cut for hay about the 25th. June, I chose that wherewith to make the experiment, intending to use it as feed for my cows when the pasture got short in August. To make the silo, as it was only an experiment and I did not wish to make much outlay on what might turn out valueless, I took a place in my cattle stable where the floor was tight, and stood up on end 2-inch hemlock planks, 12 feet long, securing them in place by strong girts, or beams, around them, so that the walls would not yield to the lateral pressure. These I lined with 1 inch hemlock boards, breaking the joints so as to make the silo tight, the pit being 9 feet 6 in. by 8 ft. 8 in. This took two men one days work] (a rainy one chosen) and we did not cut any lumber except to square the bottom ends of boards and planks. I set my hay cutter up on the mow floor, just over the centre of the silo and my horse power (a one-horse, A. W. Gray's) alongside.

On the 27th. June I cut a patch of clover with the mowing machine, raked it up at once, and drew it in. One man cut and drew the clover, being able easily to pitch on the rack all the team could draw of the green clover. One man fed the cutter having a boy to carry the clover to the apron, and one man was down in the silo packing, levelling, and treading it down. It took us four days' work to fill the silo and cover it putting in the crop from two acres and filling the silo 10½ feet deep. We covered it with 4 inches cut hay and 2 inch plank laid on and one foot deep of stones to weight it down. Part of the time it was showery and some of the clover was quite wet, as wet as it would be with a heavy dew on it.

I left it just 5 weeks before opening, during this time we could not perceive any smell of fermentation or decomposition from it any where. The stone settled in the first week as much as it did at all, and when opened we found the clover only 7 feet 6 inches deep, instead of 10 ft. 6 in.

As there was some heavy rain between, during which he could not draw the clover, we did not finish the filling until the 4th. July, and I opened it on the 8th. August. As soon as opened, we perceived a very strong smell as of Brewery wash or grains, which pervaded the whole building and barn yard for a week or more, but decreased after a while. The clover was dark in color, slightly yellowish and moist, but not wet. More moist than was Mr. Bailey's corn ensilage, much darker and stronger smelling. Still I could not see more difference from his than would be naturally expected between clover and corn.

That night I fed my milch cows, eleven in number, 10 lbs each, of the ensilage. Most of them took to it at once and eat it up fairly clean, but some 3 or 4 of the younger animals did not. Next morning I again gave 10 lbs to each cow with somewhat better results, more of the mearing it clean, I decided, however, that it was rather too much for a feed, and reduced it to about 7 or 8 lbs. giving to each animal about what it would eat, from this out, some one or two would eat up clean fully 10 lbs night and morning, but most of them would not eat more than 6 or 8 lbs. My cows are Ayrshire, or Ayrshire grades; and do not average at all large size.

I weighed the milk the first day I fed the ensilage, and again at the end of the first week. My cows had been shrinking somewhat as the pastures were getting short, but this week with the ensilage over and above their pasture, they gained just one pound of milk each, in the day's yield.

I continued to feed it for about 2 weeks, then got my cows on to clover aftermath, where they gained a good deal more than they did on the ensilage. Then after a week's inter-

mission I recommenced on the ensilage, with some slight reduction in their yield, the aftermath being eaten down, and after this, notwithstanding I continued the feed, the cows continued to shrink until the ensilage was finished on the 2nd Sept.

At the same time that I commenced feeding the cows, I also commenced feeding a thoroughbred Jersey Bull, 2 years old, and a pair of 3 years old steers, as much of the ensilage as they would eat, they being kept altogether in the barn. The bull had been getting 3 quarts of oats a day and as much good hay as he would eat. He took about 50 lbs of the ensilage at once and eat it clean, getting all the time the same amount of oats. At first he fell off in condition, but after a fortnight seemed to regain it, and did as well as he did on the hay.

The steers were just brought in from pasture and took about 50 lbs ensilage each, to which I added a handful of oil cake, to each feed. They fell off considerably and when the ensilage was done, had decidedly lost flesh, how much I cannot say, as I have no scales for weighing animals.

I tried my horses and hogs with the ensilage, and found that both would eat it, though neither very greedily, nor as well as the cattle.

My silo was, as mentioned above, 9 feet 6 inches by 8 feet 8 inches, and 7 feet 6 inches deep, which gives 617½ cubic feet. I weighed one cubic foot of the ensilage, taking it out about 2½ feet, from the bottom, which weighed just 35 lbs. Taking that as an average, would give me 23,412½ lbs, or about 11½ tons. My men and I estimated that the crop of clover which we put into the silo would have made 4½ to 5 tons of hay, not having been an extra heavy piece of clover.

I found that after the week's interval when I did not use much of the ensilage, a good deal of the surface spoiled, and none of the cattle eat it as well or as clean when it got older. There was some waste too, at the cracks of the boards, and on the top which was mouldy and bad.

Having now stated as fully as I can the facts of the experiment, I will give, shortly, some of the conclusions reached, after considering the results as closely as I could. First, no doubt my wooden silo was somewhat imperfect in having the cracks between the boards, but as there was no odour from it, it cannot have been very much so. Secondly, it is quite possible that the hot summer weather may have caused the ensilage to ferment more than it would in the fall, but the advocates of the new system assert that winter rye and clover can be put in at that season. Mr. Bailey and others also maintain that a month in the silo is quite sufficient, while I gave it 5 weeks.

I think, my experiment shows that cattle will eat it, though no better than, if as well as, hay, and certainly mine showed none of the eagerness they evince for corn stalks, turnips or grain. The crucial question, however, is as to the cost of and the return from it. First then, as to harvesting the 2 acres of clover, to make it into hay would have taken one man and team ½ day to cut it, say 3 men and horse to rake and cock it ½ day. In case of rain perhaps 2 men half a day to shake it out and cock it up again, and 2 men and team ½ a day to draw it, making in all 3½ days work for one man, 2 days work for a horse. To ensilage the same clover 4 days work for 3 horses and 3 men and a boy, calling the boy ½ man, in all 14 days for 1 man and 12 days for one horse, or fully 5 times as much work to put in the ensilage. Some, no doubt, will say that a larger gang would have done the ensilage more rapidly, but on our ordinary farms it is not easy, even for 2 or 3 days, to get 6 or 8 men, to board them and furnish tools, teams, etc., while we can all do the haying without extra trouble.

Now for the return from the 2 acres under the 2 systems, as hay I am confident I am not putting it at all too high