

the regulating of the temperature, so as to produce sweet or sour ensilage at pleasure. When a very large heap or rick is put together rapidly the result is almost certain to be sour ensilage, because compression takes place so quickly that there is not sufficient air (oxygen) present to raise the temperature of the heap high enough to kill the bacteria which sets up the acid fermentation. On the other hand, if a day or two is allowed to elapse between the times of carting the temperature increases, and the result is sweet silage. Should four or five days elapse a mouldy layer will form on the top, and this should be guarded against. If the temperature does not rise above 125 degrees the result will be sour ensilage, if above that the silage will be sweet. After carting is finished the easiest and most effectual way of compressing the heap is by building a rick of hay on the top. Other means are often resorted to, such as the placing of planks on the heap and weighting them with stones, sand, or earth. By the latter method the percentage of waste on the top is greater.

As far as our experience goes with the feeding of silage to cows, sheep and store cattle, sweet silage is much preferable, because stock eat it better, but we have to confess, after a good many years' experience, that we have never yet been able to feed it to cows for any length of time without tainting both the milk and butter. Our experience is also averse to feeding it to sheep in large quantities, in place of roots.

A. MURRAY.

## The Farm.

### LUCERNE.

STE-THERESE, June 16th, 1898.

Dear JENNER FUST,

I return your proof-sheet. I shall endeavour to send samples of soil to Mr. Shutt, as suggested. The field is all sand down to 4 feet, as you will doubtless remember, where I dug up a three or four year old lucerne stem, the tap-root of which measured 4 feet 4 inches. There had been a pile of manure, on the large patch I shewed you, although this does not account for failure on smaller patches. I have reseeded patches on this lucerne field before in the spring, by hand raking in, and

covering over with some fine manure, but was unsuccessful in obtaining desired result. Thinking that too much manure might have hurt the seeds, I also reseeded the patches without any manure, but with similar want of success. This spring my farmer tried putting white clover on these patches to fill them up, if possible, but very little of it came up. What sized sample of soil am I to send to Mr. Shutt for analysis? Lord Dundreary idea of a pill-box, would probably not be sufficient.

Probably a small sized tomato-can would fill the requirements.

You say, that on May, the 27th. the country was looking splendidly, so, it was, but, considering the early start we got, both oats and hay, on my farm, at any rate, are not nearly as forward as they ought to be. My farmer says it is owing to cold nights. We have not had a really hot night yet. There is a lot of clover growing, but timothy is backward, the new meadows are doing well, but the old ones are not doing so well. I agree with you about lean hams and much prefer one of the old fashioned Yorkshire hams.

The only lean hams fit to eat, are the Spanish hams, from hogs fed on chestnuts in the woods. You used to get those in London, but they never come here. You misunderstood me, about carting clay, on the lucerne field. I intend doing that on a small paddock quite close to the stables and to the beaver-meadow, where I can get all the clay I want. I very stupidly managed to cut my knee with an axe, on the 27th of May, and have not been able to ride up to date, but shall be able to do so in a day or two now. As I ought to ride three horses every day, this has been a nuisance. I hope to get into town by early train to-morrow, and shall try to get up to see you.

Very sincerely yours,

C. F. BOUTHILLIER.

### THE DRAINAGE OF GRASS LAND.

**Necessary for grass as for arable land—Increase of crop and better quality—Effect of rain-fall—Warmer Soil—Capillarity.**

An impression seems to be very prevalent, that however necessary effectual drainage may be for other farm crops, it is of little consequence if grass land be undrained. No one who is accustomed to notice water logged grass lands can fail to be