

REMARKS AND SUGGESTIONS BY WAY OF RECAPITULATION.—1. If good crystalized sugar of pleasant flavor\* shall be produced from the corn-stalk, I see no good reason why its manufacture shall not become as universal as the raising of corn. Every neighborhood can as easily be supplied with its apparatus to make sugar as to make cider.

2. Corn should be grown so thick as to produce no ears. Some variety of corn that grows very large, like the "Ohio" or "Rocky Mountain," might be best; this latter is well adapted in some respects, as it is very little inclined to ears or leaves; cutting the tassel will not prevent earing, unless they are all cut and kept cut. The cutting of the stalk may commence as soon as the tassel is ripe. If the weather is warm, but if cool, or early in the morning, a little delay is not thought to be injurious.

3. Lime water is perhaps the best for clarifying of any thing yet discovered; but some agent that will more effectually cleanse from all deleterious or foreign matter, is necessary. Science, with persevering experiment, will no doubt produce this result.

4. The less time occupied in boiling, the more perfect crystalization. This is true of the maple juice, and probably more so of the corn-stalk. To boil to advantage, two pans should be provided.

5. Any man of ordinary ingenuity, can make a pan in two hours, with no tools but cold chisel, punch, hammer, and six cents worth of rivets.

6. I make no doubt that a mill, with wooden rollers, would answer a good purpose for a small operation, and small operations are what are wanted; let no man go into this business *largely*, until there is more knowledge on the subject. A simple mill, with two rollers, that might be built for five dollars, would crush the stalk and save most of the juice. No cog-wheels can be necessary; for if you turn one the other must go. When experience has taught how to carry, so that we may be sure of a good article, then will be the time for more perfect and expensive machinery.

7. If the result of this enterprise depend on the amount of saccharine matter contained in the corn-stalk, its success would be certain. Estimates that have been made of the amount that might be made from an acre, have probably never been too high. Improvements in cultivation, and in finding the variety of corn best adapted, will no doubt greatly exceed these estimates.

8. The expense as compared with maple, must be much in favor of cornstalk. Of the expense of growing an acre of cornstalks, every farmer may judge correctly; then compare the amount of fuel, the amount produced in a day, the expense of fixtures, and it is all vastly in favor of the cornstalk. Only let the cornstalk sugar have the delicious flavor and the beautiful crystalization of the improved maple, and no more will that pride of the forest be hacked and bored "with wicked hands," to obtain its sap.

May we not hope that Mr. Ellsworth's forthcoming report will throw much light on the subject? The collected experience of all that have been engaged in the business the present season, will soon be laid before Congress and the people. If Professor J. I. Mapes, shall fulfil his pledge made in the last report, some scientific and practical information will, no doubt, be the result.

With these remarks, I submit this report. I have endeavored to give a faithful and full account of my experiment. I am aware, that on some parts of this business, I cannot speak as favorably as

might be desired; but for myself, I have no fear of the result of the enterprise. I would beg leave to suggest, that a liberal premium be offered next year, for a given amount of cornstalk sugar of the best quality. This might stimulate, not only a greater amount, but more careful experiment.

FEEDING ANIMALS.—A certain quantity of food is required to keep an animal alive and in good health; this is called his necessary ration of food; if he will gain flesh, or give milk or wool. An ox requires 2 per cent of his live weight in hay per day; if he works, he requires  $2\frac{1}{2}$  per cent; a milch cow 3 per cent, a fattening ox 5 per cent at first,  $4\frac{1}{2}$  per cent when half fat and only 4 per cent when fat, or  $4\frac{1}{2}$  on the average. Sheep grown up, require  $3\frac{1}{3}$  per cent of their weight in hay per day, to keep in store condition. Animals while growing require more food and should never be stinted.

According to this calculation, a sheep of 50 lbs. weight would require 1 lb. 11 oz. per day; and one of 100 lbs. weight, 3 lbs. 5 oz. Or it would require 120 lbs. of hay to keep the first sheep 4 months; and 327 pounds for the same time the last. These it is believed agrees very well with the experience of our farmers, who are in the habit of allowing about one ton of hay to every 10 sheep. It must be remembered, however, that this calculation is based on the very best hay; so that when the farm whose sheep have had this quantity of thistle, johnswort, daisy, &c. &c. but all called hay, dealt out to them, finds his sheep dying off by dozens, in the spring, he need not attribute it to an error of calculation. The great difference between hay of the first quality, and that of inferior kinds, is too much overlooked by the farmers. According to M. Antoine, if 100 lbs. of good hay is taken as the standard, it will require 120 lbs. of the second quality to keep an animal in as good condition as the first; 140 lbs of third quality; and so on, until hay may be so poor as scarcely to support animal life given in any quantity.

MUD, MUCK, PEAT.—Farmers should improve every opportunity for procuring various materials, especially mud, &c. from the low lands to put in their barn yards in the hog pen, and in their barn cellars if they have them, and if they have not then they should make them if practicable, and if they cannot do this, dried mud, loam, &c. should be used as bedding in the cattle house to absorb the liquid manure, or thrown under the floor for this purpose, or as practised by some farmers, remove the floor, and put in a layer of one or two feet of dry loam, mud or sand, if nothing better can be had. To take up the liquid manure, and mix it with the dung to absorb the richness which otherwise might escape from it. By good management many farmers with little trouble can save twice as much manure as they now have, and this will give a new face, and a beautiful one too, to all their farming operations.—*Boston Cultivator*.

FLIES.—The most effectual remedies for flies, is a strong infusion of Souchong tea, sweetened with sugar—as fatal a solution as arsenic. The skin of potatoes boiled in water for some time, and the water afterwards boiled down to a small portion, also yields a deadly poison.

The Southern planter says that a table-spoonful of pulverized alum, sprinkled into a hogshed of water, stirring the water at the same time, will in a few hours completely purify the water, by precipitating to the bottom all impurities, and make it as clear and fresh as spring water.