

*silking and glazing of Indian corn*—the solids are just doubled. Moreover, that the amount of solids depends on the more or less formation of grain in the cobs. If this be so, the plant must be fed, in full, and phosphoric acid is indispensable as well as potash—besides nitrogen." True, of course, but I fancy on the light soil my correspondent is cultivating, though potash is probably wanting, the plant, when kept stirred by the harrows and horse hoe as his practice is, will find plenty of phosphoric acid for itself from the soil.

*Siloes.*—A neighbouring farmer is about to build a silo, but he has a difficulty; the principal range of buildings were, most injudiciously, laid out on a spot where any excavation would be deeply flooded every spring. He, therefore, proposes to build the silo at a distance of some 70 or 80 yards from the cow-house, and I wrote to a friend of mine, who has had a silo at work for some years, for his opinion on the subject: "A silo 75 yards from the barn would lose most of its advantages. If D. is afraid of *smells*, I can tell him that people constantly pass along my siloes *in the barn*, between the stables and actually touching the butter-factory, and, unless they were told, they would have no idea of the proximity of the siloes. But we make only *sweet silage*. As to what you say about drying and stacking fodder-corn, I never could dry the stalks sufficiently not to heat in the stack before winter. I have grown maize for years, and even when the stalks remain in the field until hard frosts set in, the stack then built is apt to heat, and considerably too, if the cold is not continuous. Remember, we are not in the State of New-York, or South of it. To my mind the silo has one main advantage: it keeps in a green state fodder which could not be easily saved otherwise. Now, as to green stalks, as compared with dry, do you not admit that dry hay—no matter how well made—never produces the same amount of meat, milk, or wool, which would have been produced by the green grass or other green food—tars, &c.—from which the hay was made?"

I certainly admit the last position in its entirety, because I believe that something more than water escapes from the hay in the making, just as I believe that many of the valuable parts of the malt and hops escape from the brewer's worts while they are boiling and cooling; else, why the odorous exhalations we all recognise as we pass on the leeward side of a brewery in operation? But I do not think that a moderate degree of heat would injure a stack of *well-won* fodder-corn, such as I used to see in the Eastern Townships some fifteen years ago, particularly if trestles, or what the Scotch call—well, I have forgotten the name—be placed under them, extending from each side to the middle, and an upright triangular or circular open frame of rough pales, meeting them at their junction, go right through the roof. The trestle is made of some rough stuff, in any farm, and about three feet high. I have seen pease, carried and stacked in a very green state, keep well under this style of treatment, and I think it would answer for corn. Our S. E. of England hay-stacks heat so that an unaccustomed visitor would think they were on the point of catching fire; but they are all the better for it.

*Fermenting food for cattle.*—In 1872 Mr. Cochrane, of Hillhurst, was in the habit, of feeding all his cows on hay-chaff, meal, and ground turnips, thrown into a conical heap together, and allowed to ferment for 24 hours. In the spring of the following year, a great number of his cows aborted, and others dropped weak, sickly calves. His son, Mr. James Cochrane, subsequently passed a year or so in England, and on his return he told me that he had stopped the system of allowing the food to heat, as he, agreeing with what I had said before he left for his voyage, believed that the numerous abortions in the herd were principally attributable to the pre-

paration of the food in the way I have mentioned. I see by a late issue of the Agricultural Gazette that other people share my belief in this matter. Mr. Livesey, who has a model farm at work in Sussex, England, was visited last month by a large committee of *agronomes*, who inspected his farm and stock, and expressed themselves as being well satisfied with the whole management of the business. A steaming apparatus is provided, but it is now never used, as Mr. Livesey believes in giving food in its natural state as much as possible. Therefore linseed is made into meal and mixed with the chaffed fodder. *Speaking of abortion*, he said that he had given up steaming food, had had the place thoroughly disinfected with sulphur, and had never had it—abortion—since.

*Ensilage.*—"As Western, or rather Southern, corn for ensilage contains at best only from 12% of solid matters, it must be pretty clear that the thick wating stuff produced in this province from such immature fodder is not likely to contain more than from 5% to 8% of solids, while it is proved that our own Canadian corn, when nearly ripe, contains as much as 26%." E. A. B.

*Roots vs. grain for milch-cows.*—Mr. Brown, the professor of agriculture at the Guelph college, is, like me, a great admirer of the cultivation of roots, and no wonder, for we have both had the misfortune (?) of being born and brought up in Britain. Last winter an experiment was tried under Mr. Brown's superintendence to test the relative value of roots and grain in the production of butter, the following objects being aimed at: 1. the cheaper production of winter-milk; 2. to get milk equal at least to the average Ontario summer milk; 3. the use of a large quantity of roots without the butter having a bad flavour; 4. to maintain a good flow of milk without the use of grain.

The daily rations were thus composed:

ROOT RATION.			
Chaffed hay - timothy and clover.	Mangels.	Swedes.	Belgian carrots.
12 lbs.	33 lbs.	33 lbs.	15 lbs.
GROUND GRAIN RATION.			
Hay.	Oats.	Pease.	Barley.
12 lbs.	7 lbs.	7 lbs.	7 lbs.

Taking two cows which had been tested over a winter of 180 days, one on each of these rations, and all other conditions being equal, the following comparison was obtained:

Milk in lbs.	Value of milk.	Cost of food.	Manure value.	Net gain.
Roots. 3762	\$47	\$35	\$ 7	\$19
Grain. 4020	50	56	16	10

Now this is very striking! A ration containing 21 lbs. of mixed grain beaten by a ration containing 75 lbs. of mixed roots by nearly 100%! M. Bernatchez, in the "Preliminary Report of the Agricultural Commission of the Province of Quebec," a copy of which has just reached me, attributes the superiority of the cultivation of the Ontario province in great measure to the quantity of root-crops there grown, and he strongly recommends the farmers of Quebec to increase their acreage of these valuable plants. I need hardly say that I agree with him. Still, without an experiment—in fact, without many experiments—I should not have been prepared for such a difference in favour of the roots as is brought out in the above experiment. The professor, very sensibly, adds: "The dairy world has yet to learn whether the extensive use of grain is or is not economically correct; whether a large