

Planting, &c., of silo-crops.—In the spring of 1881, two acres of the field which was in turn for roots, and which had been ploughed in the previous autumn, were manured with 100 lbs of superphosphate per acre, a sufficient supply of dung not being obtainable. This was put on the top of drills 30 inches apart, and on the 20th of June we sowed 3 bushels of Western fodder-corn, the grains being about 4 inches apart in the rows.

Cultivation.—The corn was hand-hoed twice, and horse-hood three times, during the first weeks of its growth:

- Fist time two weeks after sowing;
- Second time when one foot high;
- Third time when three feet high.

The stalks varied from 3 feet to 12 feet in height, and from half an inch to one inch and a half in diameter.

Harvesting.—The Toronto Mower cut two rows at a time, and the corn was loaded, crosswise, on a double-waggon, taking 2 rows down the field and two rows up the field, two men loading and one man on the waggon.

Ensilage.—This year we did not cut the corn-stalks, as this being an experiment, it was not considered worth while to go to the expense of buying a costly chaff cutter until we had ascertained thoroughly, though on a small scale, the probable value of the ensilage when given to stook. Two men, then, unloaded the stalks; two men were employed, in the silo, packing and tramping, with an old mare to help, but the men looking carefully to the sides and corners. Small, loose bundles of stalks were spread flat, and well packed and tramped all over, layer by layer.

Covering in.—The ensilage, when all packed and tramped, was about 7 feet deep. Short planks and old doors, left from the alterations in the barn, were laid on the top, and on this cover were placed, to keep all tight and continuously pressed, 20 inches of boulders, varying in weight from those liftable by one man to those which required the united force of two.

Heating.—Three or four days from the finishing of the cover and its load of stones, a slight increase of temperature was perceptible at the door-way. This heating continued for about three weeks, at the end of which time the mass had sunk about 2 feet, leaving the ensilage 5 feet deep.

Smell.—There was a strong, sweet odour given off during the first two weeks after the completion of the packing, which gradually changed into a slightly acid smell. This was only noticeable, again, round the door-way, where the exclusion of the air was not perfect, the entrance being closed with short pieces of plank laid cross-wise inside the door.

Opened.—On the 7th of January, the silo was opened. Three feet round the door-way were spoiled—black and decayed, with bad odour—about 6 inches at the sides and 3 inches at the top were also damaged, but the rest was in good condition.

Consumption of the ensilage.—We first gave the cattle the stalks whole, just as they were taken from the silo; but this we soon found to be a very wasteful mode of feeding, as the animals would not eat the thick ends, though these were the sweetest parts of the corn, especially the soft, spongy core, which had a flavour like sweetened water, with hardly any perceptible acidity. Some of the cattle ate it readily, even greedily; while one or two of them refused it at first, but after two or three days, showed the same appetite for it that the others did.

Improvement in yield of milk.—In three or four days after receiving for the first time the ration of ensilage, the cows, though a long time calved, showed a marked increase in the amount of milk. This increase was to the extent of 20%!

The ensilage was finished on the 27th of February, and the number of cattle which received it was 6; sheep 17—one

bushel a head was given each day to the horned stook, with 2 quarts of meal, twice a day, a peck of oat mangolds, and all the oat-straw they would eat; the hay which the horses threw out of their racks was given to the cattle at night. The sheep were treated in the proportion of 5 sheep to one cow (rather a small allowance—I should take 6½ or 7 sheep to equal one cow. A. R. J. F.).

Estimation of quantity of ensilage.—

Silo = 24 ft. x 12 ft. x 5 ft. deep = 1440 cub. feet.

Weight of 50 cub. feet = 1 ton.

∴ 1440 = 28½ tons.

Cost of the ensilage.—All operations in husbandry are difficult to value, especially those requiring horse-labour. Still, we can arrive at an approximation to the cost, and I think it is wiser to overrate the value of the work rather than the reverse, though we must not carry that too far: let us see then, as nearly as we can estimate it, what our ensilage cost us per ton:

Ploughing 1¼ day of man and team	\$3.50
Man sowing salt, ¼ day	0.25
Grubbing in spring, ¼ day man and team	0.50
Drilling, ½ day man and team	1.00
Man sowing superphosphate, 1 day	1.00
Rolling—man and team, ¼ day	0.50
Sowing corn, man, 1 day	1.00
Cultivating, 3 times, man and horse 2 days	3.00
Manuring phosphates broadcast ¼ day	0.25
Hand-hoeing twice, 3 days	3.00
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	\$14.00

<i>Harvesting.</i> —Manuring, self and team, ½ day	\$1.00
Hauling in to silo, 3 days, \$3.00—team one day	4.00
Packing, 2 days, \$2.00—horse 1 day	2.50
Covering, 2½ days	2.50
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	\$10.00

<i>Manures.</i> —200 lb. superphosphate	\$4.00
200 lb. salt	0.50
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	\$4.50

Thus the whole cost of the ensilage from the first ploughing in the autumn of 1881 to the completion of the filling in the autumn of 1882, amounted to \$28.50 or as nearly as possible one dollar per ton. (1)

On reviewing the first trial of ensilage, we came to the conclusion that the successes overbalanced the failures, and that it was well worth while to continue the practice for another season. The failures we considered to be: 1.—The corn ensiled without previous cutting up, and in consequence, as it was impossible to tramp the long stalks down tight enough, the air remained in the interstices and caused mildew after the first fermentation was over; 2.—The wall of the silo was left in a rough state instead of being cemented; 3.—The covering with old pieces of board, old doors, &c., did not sufficiently exclude the air from the top layer of ensilage. Accordingly, learning a lesson of considerable value from our blunders, we proceeded in the year 1882 to correct our former process in the following manner:

(1) A deduction from this for the cultivation the land received, and the unconsumed remains of the manure, may be made, but, on the other hand, the rent of the land, and other charges must be added. Mr Dawes of course does not pay rent, but the interest of the money expended in the purchase of the farm comes to the same thing, and that, coupled with interest on the capital laid out in buildings and in clearing off stones, &c., would amount to a fair sum per acre per annum. Could the whole be less than \$4.00 per acre a year? A.R.J.F.