

require before they sell. But what I would like to do is to try and see if my intelligence could not make that future farm pay for itself, interest and all; if not, I am not going to receive the due interest on what I pay down on the place. Let me end up this little complaint with the expression that, as a rule, the renter has the hardest row to hoe, good years or bad, and, therefore, his discouragement tends to make him a poor agriculturist.

C. W. SAGE.

Simcoe Co., Ont.

Cost of a 53-foot Silo.

Editor: "The Farmer's Advocate":

During May, 1911, we built our silo—solid concrete wall. Our original intention was to build a 14 x 40-ft. structure, but the builder we could get to build most conveniently when we wanted had the steel building rings only for a 12-foot silo, so, to get the capacity we wanted, we built the cement 53 feet high. We are well pleased now we did so. Had we to build again, we would build the same size, believing we have a better silo than a 14 x 40-ft. There is no trouble whatever in filling. The silo stands at the side of the gangway in the barn, and we have to elevate the corn about 39 feet. The following we figure the cost:

Building:—

51½ Barrels cement, at \$1.75.....	\$90.12
53 yards gravel, at 40c.....	23.80
20 loads stone, at 40c.....	8.00
150 lbs. barb wire, at 3½c.....	4.87
25 feet steel ladder, at 25c.....	6.25
3 men, 10½ days, at \$2.50.....	78.75
2 men, 10½ days, at \$2.00.....	42.00
Teaming cement.....	12.00
	\$265.19

Plastering:—

5 barrels cement on inside.....	\$ 8.75
3 barrels cement on outside.....	4.25
10 bushels lime.....	2.30
25 pounds lampblack, at 15c.....	3.75
5 yards sand, at 40c.....	2.00
Paint for blocking off.....	1.25
3 men, 2½ days, at \$2.50.....	18.75
2 men, 2½ days, at \$2.00.....	10.00
1 man, painting, 3 days, at \$2.50.....	7.50
	\$ 58.55

Roof:—

Bolts for rafters, and nails.....	\$ 1.00
Rafters, 2 x 4, 72 feet.....	3.16
Sheeting, 200 feet.....	5.00
Galvanized sheeting.....	22.45
Ball and weather vane.....	2.15
Window.....	.90
Time, 3 days, at \$2.50.....	7.50
	\$ 42.16

Chute:—

200 feet scantling.....	\$ 5.00
300 feet siding.....	6.00
90 feet plank for 9 doors.....	2.00
Nails, bolts and hooks built in.....	
silo to hold ladder and chute.....	2.00
Time, 1½ days, at \$2.50.....	4.25
	\$ 19.25

Rent of building rings.....	\$10.00
Rent of hand cement mixer.....	5.00
Moving builder's outfit.....	4.00
Excavating foundation.....	10.00
	\$ 29.00

Total **\$414.15**

The gravel, sand and stone did not cost anything, except the teaming. We did this work in winter with our farm teams and sleighs, and have charged up regular teaming wages. To the wages paid we have added 50 cents a day for board of men. We paid 50 cents a day less in cash than the amounts stated in the account, with board. The cash outlay was not as large as would appear, as we ourselves did all the work on the chute, doors, roof, ladders, painting and blocking off, teaming, etc.

The barb wire was used for reinforcing; a "rope," made by twisting two strands together, was placed in the wall every 2½ feet. The 25-ft. steel ladder is fastened from the filling window in the roof, secured to iron hooks built in the cement down the side of the silo. The bottom of this ladder is easily reached by an ordinary farm ladder. It is better than having the steel ladder come to the ground, when there would be danger of children and others climbing where and when they should not. The lampblack was used to cover the outside plaster. The lampblack, paint and blocking off are not absolutely necessary, though we consider it money well spent. We have a silo with a neat appearance, an ornament to the farm. The roof is made of good galvanized sheeting. We got it cut and soldered at the tinners; each side is soldered, and riveted in 6-in. solid piece 12 feet long, 6 feet wide at the bottom, tapering out at the top.

Waterloo Co., Ont. JOHN TAYLOR, JR.

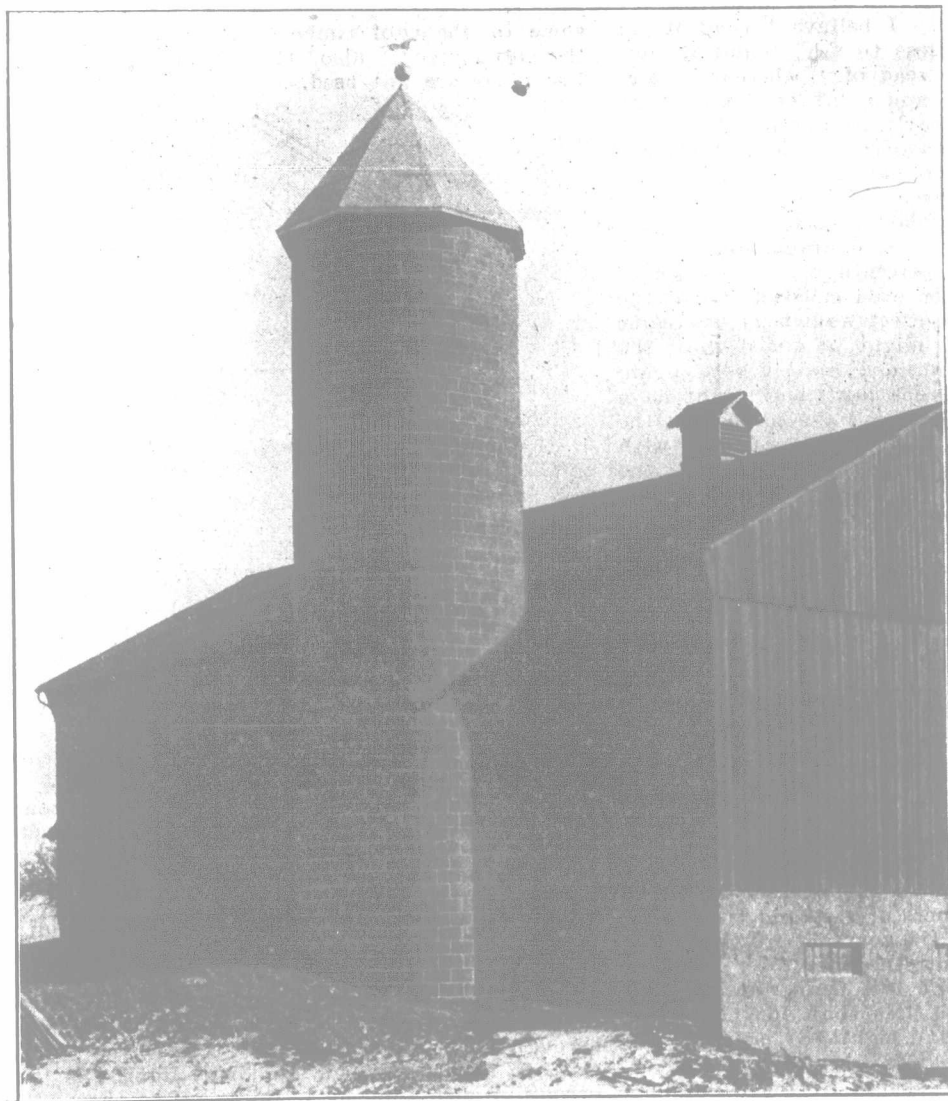
Rotation and Tillage in Relation to Corn Culture.

More corn is being grown every year in Canada. The increase in acreage of corn grown for silage in the last five years is 24 per cent greater than in the five years preceding, said Prof. L. S. Klink at the Ontario Corn Show in Tilbury, in an address on "Rotation and Tillage in Corn Culture."

There are three requisites for success in corn-growing:

1. Good seed. That is, seed that will germinate strongly, and that is of a good variety.
2. Thorough and systematic manuring and cultivation, and
3. Rotation.

If there is much difference of soil on the various parts of the field on which hoed crops are to be grown, choose the warmest, the driest and the best side for corn, and the moister, the harder part for root crops. Corn is a gross feeder, but not a good forager. Let a grain or two of oats fall on a piece of overturned sod, and, without any cultivation, there will spring up a vigorous bunch of dark-green leaves which will produce heads and ripen good grain. The oat plant is a good forager. Should some kernels of corn be let drop in a similar situation, and be also left without cultivation, the plants would be feeble, little more than leaves being produced, and the height attained scarcely greater than that of the oats.



Silo 53 Feet High.

Built by John Taylor (Jr.), Oakdale Farm, Waterloo Co., Ont.

Corn, to do well, needs generous treatment, plenty of manure and thorough cultivation.

A series of experiments conducted at Urbana, Ill., demonstrated the benefits of crop rotation. On one plot, the soil being ideal for corn, corn was grown twenty-nine years in succession, without manure. The first year the crop yielded 70 bushels per acre; the thirteenth year, 35 bushels per acre; the twenty-ninth year, 27 bushels per acre. Where corn and oats were grown alternately on similar soil, without manure, for the same length of time, corn yielded the first year 70 bushels per acre; the thirteenth year, 62 bushels per acre, and the twenty-ninth year, 46 bushels per acre. When corn, oats and clover were grown successively in rotation, without manure, the corn yielded, the first year, 70 bushels per acre; the thirteenth year, 66 bushels per acre; the twenty-ninth year, 58 bushels per acre.

It will be seen, from the results of these experiments how large a place rotation fills in securing continued large yields. The reason why a succession of different crops is beneficial is not alone because each extracts special elements from the soil, but partly, also, because they feed at different times of the year. Crop rotation should be systematic, and not, as with so many farmers, just as

it happens to be handy or as the notion strikes at the time.

There is nothing like clover sod for corn. In many places couch or quack grass has almost got possession of the fields, and when it is prevalent where corn is to be planted, the battle with it should not be deferred to one season of special cultivation; it should be the year before, at least. As soon as possible after hay has been cut, we plow about three inches deep, and roll firmly at once. Then harrow lengthwise a few times, driving the harrow at a half lap, and after a while disk and bring roots to the top. After the roots are dry and dead we plow again, but considerably deeper. What little manure is on hand is applied to the surface in the fall, but the great bulk of it is applied fresh in winter, at the rate of twenty tons per acre. Until the snow gets deep, it is spread, but afterwards it is put in piles, not in little heaps, such as we commonly see, but in larger piles about twenty feet apart each way. Before frost is out in spring, a wagon is driven over them, and the piles knocked off their snow bases and spread at once. As soon as possible, the field is plowed with a shallow furrow, and manure covered.

Another system is to leave clover sod till the middle of May, and then plow both clover and manure under. On land treated in this way corn makes a slower growth at first, and keeps green longer in the fall. We have used commercial fertilizers but little, though we have found that superphosphate hastens ripening.

It pays every time to put a great deal of work on the land before corn is planted. If a heavy rain comes on when the field is ready for planting, it is wiser to wait a while and rework it, rather than plant somewhat earlier on the surface as it is.

We obtain our seed from Southwestern Ontario, and always in the ear. Have our supply on hand for next year already. White-cap and Leaming varieties suit us for ensilage purposes very well. Red cob is much too late. But there is much difference in strains, as well as in varieties. Careful experiments have shown as much as twelve bushels of grain per acre difference between strains of the same variety of corn. Corn-growers in these southwestern counties should be particular as to the vitality of the seed corn they sell. At a convention of farmers in Ottawa, recently, there were two men "boiling mad" because the seed they had procured from this section was no good.

One of the men claimed to have in that way incurred a loss of \$500.

I do not feel like blaming too much the man who sold the seed. He probably was ignorant of the lack of germinating power in the corn he sold. There were two to blame: the seller, who should not have sold such stuff for seed, and the buyer, who should have tested it before planting. The time is at hand when the grower and seller of seed corn should test and be able to guarantee what he sells to be good. He should be able to answer in the affirmative four questions concerning the corn he offers for sale: First, will it grow? second, will it yield? third, will it mature? fourth, has it some breeding?

For hill corn, we plant five grains to each hill. We prepare in this way for some ravages from cutworms or birds. Three good stalks to each hill is best, and is what we try to get. When grown in rows for ensilage, the best quality and proportion of ear to stalk is secured when rows are 42 inches apart, and stalks average one foot apart in the row. If cultivation is begun before the corn is up, it is better to have too much seed rather than just enough.

It is a common and good practice to run harrow crosswise over rows. We cultivate once a