

combating the warble fly is to extract the immature bots from the warbles and destroy them. This may be done, he says, by opening the warbles with a sharp knife and removing the bots before preparation of the hide; the scar in the hide will heal over smoothly, and loss will not occur, as is the case when the bots themselves drill the holes.

THE FARM.

Immediate Drainage Pays.

At a drainage demonstration, last week, I was asked to answer through "The Farmer's Advocate" the following question:

A man has 50 acres to underdrain. He has two propositions before him, viz., to drain 10 acres a year for 5 years, at 25 cents a rod for digging and laying, or to drain the whole 50 acres at once, at 35 cents a rod for digging and laying, other expenses, such as cost of tile, hauling them and filling the trench, being the same in both cases. The land produces fair crops without drainage. Which method will pay him the better, and how much?

Perhaps the best way to solve this is to suppose that he borrows the money in either case, charge him interest at, say, 5 per cent. on the money in both cases, and thus find the total cost of the drainage at the end of five years. Also to calculate the value of the crops during that period, and find what cash balance he would have in five years after paying for the drainage in each case.

If the drains were 4 rods apart, then it would take 40 rods to drain one acre, the cost of which may be estimated as follows:

Operation.	Rate.	Cost at 25c.	Cost at 35c.
Digging and laying, 25c. a rod...		\$10.00	
Digging and laying, 35c. a rod...			\$14.00
Tile \$12 per 1,000...	7.92	7.92	7.92
Filling 4c. a rod...	1.00	1.00	1.00
Board of men 5c. a rod...	2.00	2.00	2.00
Hauling 6c. a rod...	2.40	2.40	2.40
Total		\$23.92	\$27.92

Thus we see that the total cost would be \$24 per acre in the one case, and \$28 in the other.

The cost of draining 10 acres, at \$24, would be \$240. And this, at 5 per cent., compound, for 5 years, would amount to $\$240 \times (1.05)^5 = \306.33 , which represents the cost five years from now of draining the first ten acres. The cost of draining the second 10 acres would be \$240, plus compound interest for four years, or

	$\$240 \times (1.05)^4 = \291.72
Cost of third 10 acres.....	$240 \times (1.05)^3 = 277.82$
Cost of fourth 10 acres.....	$240 \times (1.05)^2 = 264.60$
Cost of fifth 10 acres.....	$240 \times (1.05)^1 = 252.00$

\$1,392.47

Thus, 5 years from now the cost of draining the 50 acres by the first method, together with interest, would be \$1,392.47.

Now for the returns from the land during that period. Let us suppose the drainage increases the value of the crop \$10 per acre, on the average. This is a conservative estimate. The average increase due to drainage reported to us at the O. A. C. by farmers who have drained is over \$20 per acre. For the purpose of this calculation, the amount allowed per acre for the crop from the land not drained is immaterial, so long as we add \$10 to it to find the amount from the drained. However, it is well to be as near the actual as possible. Perhaps \$15 per acre would represent a fair average crop from undrained land under general farming methods. Then, the returns the first year would be \$25 per acre on 10 acres drained, equals \$250; and \$15 per acre on 40 acres undrained, equals \$600, or a total of \$850. As this would not be received until near the end of the year, we must count interest for only four years. The value, with interest, in four years, would be $\$850 \times (1.05)^4 = \$1,033.18$. For the second year, the crop would be worth $20 \times \$25 = \500 , and $30 \times \$15 = \450 ; total, \$950. This in three years, would amount to $\$950 \times (1.05)^3 = \$1,099.75$. The third year's crop would sell at $30 \times \$25 = \750 , and $20 \times \$15 = \300 , or \$1,050, altogether. Value two years later, $\$1,050 \times (1.05)^2 = \$1,157.63$. The fourth year would produce \$1,150, worth in one year $\$1,150 \times (1.05)^1 = \$1,207.50$; and the fifth year, \$1,250, received about the end of the year, when the grain or the stock fed on it is sold. Thus, the total receipts, with interest, at the end of the five years would be $\$1,033.18 + \$1,099.75 + \$1,157.63 + \$1,207.50 + \$1,250 = \$5,748.06$. Cost of drainage, with interest

Cash balance five years hence

Now, coming to the second method, the total cost of draining the 50 acres at once would be $50 \times \$28 = \$1,400$; and this, at interest for five years, would amount to $\$1,400 \times (1.05)^5 = \$1,786.83$. The returns at the end of the first

year would be $50 \times \$25 = \$1,250$, and this, with interest, in 4 years would be worth

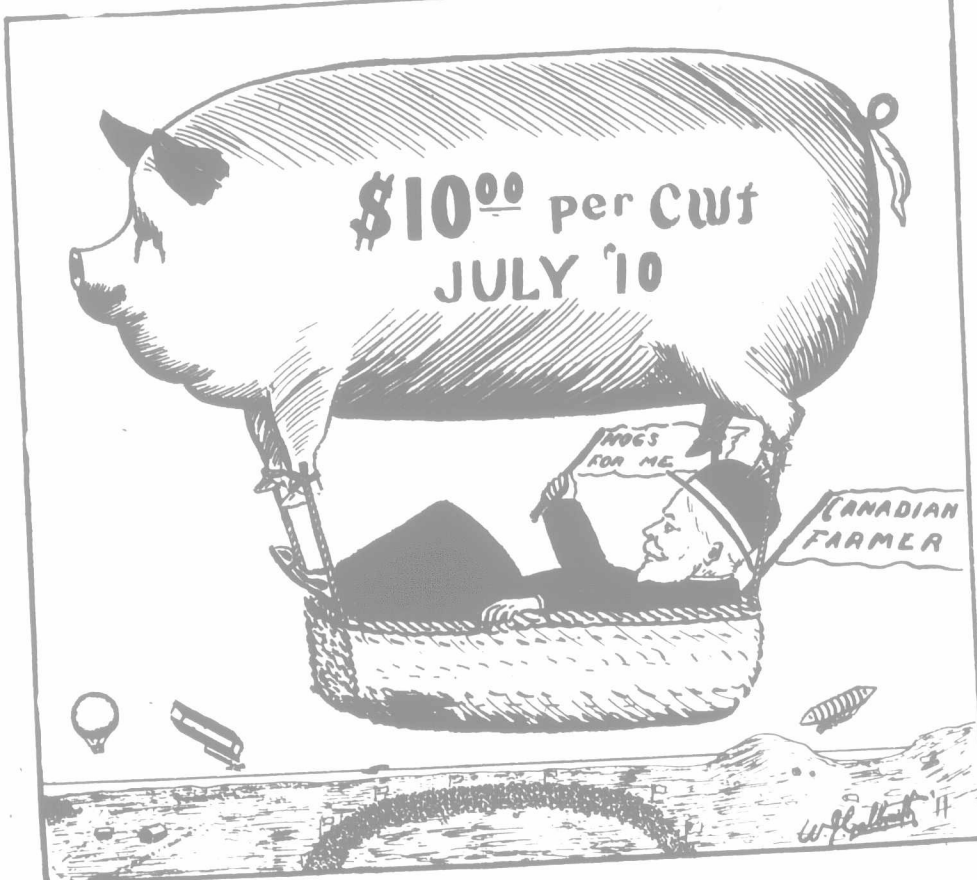
$\$1,250 \times (1.05)^4 = \$1,519.36$

The second year's crop would in 3 years amount to	$\$1,250 \times (1.05)^3 = 1,447.00$
The third year's	$\$1,250 \times (1.05)^2 = 1,378.13$
The fourth year's	$\$1,250 \times (1.05)^1 = 1,312.50$
The fifth year's	$= 1,250.00$

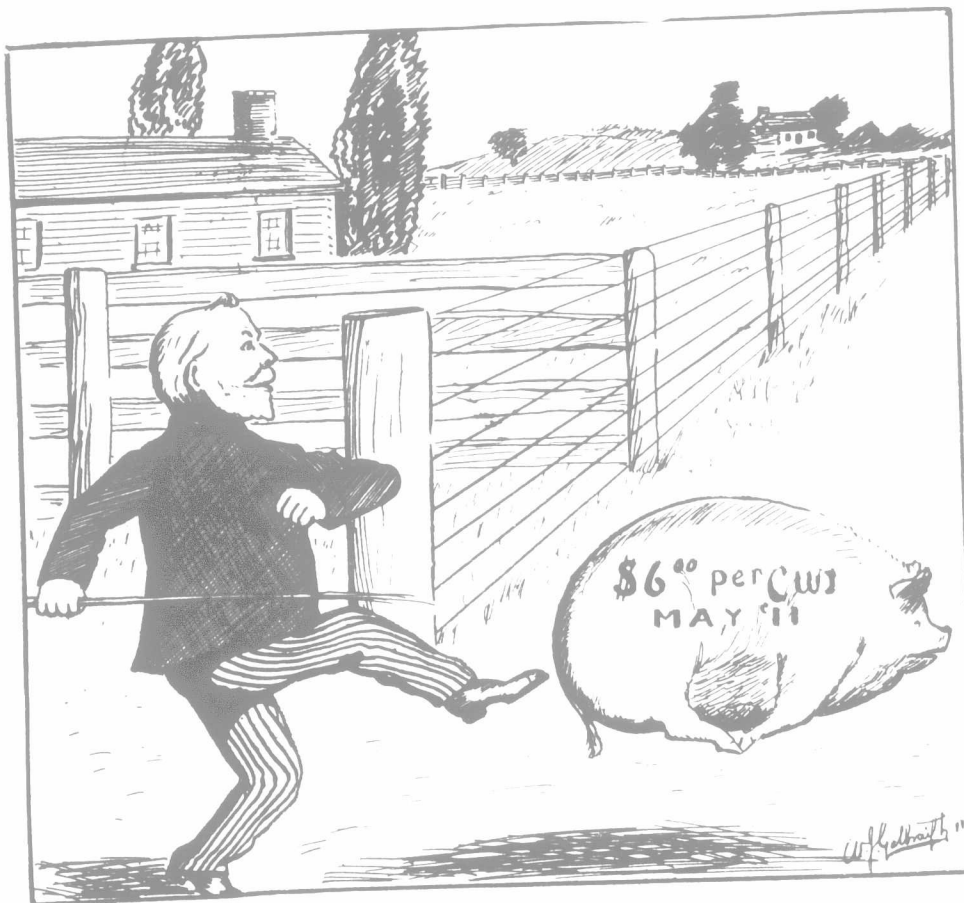
Total	\$6,907.99
Cost of drainage, with interest.....	1,786.83

Cash balance, draining all at once	\$5,121.16
Cash balance, installment plan.....	4,355.59

Increased profit by draining all at once	\$ 765.57
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July, 1910—A Month of Aviation Meats.



Down and Out.

Farmer, going out of hogs on account of drop in prices: "Get out! There's no money in you."
Last Hog—"Mark my words, old man, you'll be sorry for this when next I go soaring."

With this result before us, it is easy to concede that a man "cannot afford" to go so slowly in the matter of drainage, even at such a small increase as \$10 per acre. If we take the increase at the average of \$20 per acre, the difference in favor of the quicker method would be twice as much, or \$1,509.

WM. H. DAY.

Cheap Silo Built with Home-made Curbs.

Editor "The Farmer's Advocate":

The block silo may suit the fancy of some people as to outside appearance, but I cannot but think that it is expensive; it takes a lot of time to make the blocks, and then to build them. The hollow slop wall has some friends, and it is claimed to be easily made, and is frost-proof. Now, those in the north part of this Province may have some trouble with the corn freezing to the silo, but, with a little care to keep the corn dug out round the wall so that there is always a little trench, there will not be much trouble with frost, and this will not spoil the corn to any extent worth grieving over, and if some corn should get frozen, and a thin layer of even six

inches be left stuck on the wall until a cold spell is passed, then it falls down and is thrown into the stable, and thaws out, little, if any, the worse.

We have built lumber of different kinds with varied success, but last year we concluded to build cement, and made what we think a success of building two 12 x 30 x 7 in. solid walls. They have stood the winter well, and kept the silage well. All who have seen them express the opinion that they are good.

We were not the originators of the scheme. An acquaintance had built one, and so to him we must give the credit of putting us on the way of building for ourselves good and very cheap silos.

We made our cribs of wood, using 1½-inch basswood to nail the lumber to. Those were cut into pieces one-eighth of the circumference; for the inside wall, 1 inch smaller than the diameter, so that the 1-inch lumber made it the desired size. It is a good way to draw a circle the size of the silo intended, less 2 inches. If you have a smooth floor large enough, it is the best place to work on; the outside circle 2 inches larger than wall.

Mark the circle on the board to be cut for inside; a board 1½ x 9, and 5 feet long, will make one piece for each inside and outside ring. When there is one board marked in this way for each crib, nail it on top of two others, and take then and have a band saw run through each bunch, until all are sawn out. It is best to make patterns by the circle to mark the boards with, and follow the marks very closely. The inside rims will be 2 inches wide at the ends, the outside ones about that in the center.

We had the lumber for our cribs run through the planer, and a lot cut the right length in the factory at the same time. The boards were 8 inches and less in width; the outside ones were cut three feet long, the inside 2½ feet long, and we raised the length of the inside lumber at each lift. A neighbor got our pattern and cut out cribs for himself. He made his inside boards