

How you can invest Provincial funds profitably upon your own Farm—NOW

By draining your low, wet fields—it will pay you and it will pay the Province

Why it Will Pay You

Because you can borrow funds through your Township Council from the Provincial Government up to \$1,000 for drainage purposes at 5% on the amortization plan.

Because at this rate for each \$100 you borrow you will have to pay but \$8.05 annually for 20 years, at the end of which time the debt will be wiped out.

Because under average conditions \$100 will pay for the drainage of 4 acres—thus the average yearly charge per acre will be approximately but \$2.00.

Because accurate experiments on nine different representative farms in widely-separated parts of the province proved last year that an average increase in crop values of over \$8.50 an acre was secured by underdrainage.

Because as an investment, the annual expenditure of \$2.00 for borrowed money on the 20-year amortization plan with an \$8.50 annual return.—Well it can't be beaten.

Because by investing your own money in underdrainage you can secure dividends of at least 15% to 25% on your capital.

Why it Will Pay the Province

Because Ontario has about 5,000,000 acres of cleared land in need of drainage.

Because Ontario has an equal acreage of unreclaimed land, which, if drained, would grow splendid crops.

Because if an average increase of \$8 an acre were thus obtained in Ontario's crops—really this estimate is very low—the people of Ontario would have increased revenues amounting to \$80,000,000 annually.

Because this is a practical way to increase the production of foodstuffs at a most critical period in the life of the nation.

How it Will Increase Your Profits

Drained soils are invariably cultivated from a week to ten days earlier than the same soils not drained. This means a longer period for seeding, and consequently more acreage can be cropped with the same number of horses and men and with much less labor per acre.

Drainage makes thorough tillage possible. The moisture content of a soil is the key to successful cultivation, and upon the condition of the seed-bed chiefly depends the successful production of crops. Less plant food is lost from a drained soil than an undrained soil.

Undrained soils are notoriously cold soils. Water is one of the most difficult substances to heat. It requires more heat to evaporate one quart of water from a soil than it does to evaporate one quart of water from a soil.

saved. In 1916 excessive June rains proved most conclusively the value of underdrainage—ask the few who are selling wheat and potatoes to-day about it.

Practical Timely Hints

TILE SUPPLY.—In 1854 Ontario had one machine manufacturing tile on a commercial basis. In 1917 Ontario has 246 tile manufacturing plants, the majority of which are manufacturing clay tile.

This is wonderfully significant. We have made great progress in the past—that is the best guarantee that we shall make greater progress in the future.

LABOR-SAVING DEVICES.—The traction ditcher has almost entirely replaced the old hand method of cutting trenches for tile drains. The work of the ditcher is entirely satisfactory and is more economical than hand labor. In 1904 Ontario had one machine. In 1917 Ontario has 160 machines, each capable of cutting from 70 to 150 rods of completed trench in one day.

To get in touch with the tractor owner nearest your farm write your District Representative. He will tell you—that's his business.

OPEN DITCHES.—Those which serve as outlets for large acreages can be made most profitable to the individual owner if this system of drainage is supplemented by tile drainage on his farm. Such open ditches remove only the surplus water and leave areas situated at some distance from the ditch still saturated.

Small, open ditches may sometimes be substituted for the tile drain; and although not as satisfactory as covered drains, they are less expensive and may be constructed without any cash outlay whatever.

If time and labor are not available, water furrows run with a double mold board plow or the ordinary type of plow will frequently save the crops in low-lying places.

How the Department Helps

The Department of Agriculture, through the Ontario Agriculture College, will give to the farmer expert advice re planning of drainage systems, and where necessary will furnish a map showing location of drains, size of tile and other detailed information necessary for the installation of drainage systems. This work is done free of charge in counties supporting a District Representative. A nominal fee of \$2 or less is charged in all other counties. 320 visits were made in 1916, and 15,000 acres of farm land were surveyed for drainage purposes.

The Ontario Government will lend to the farmer wishing to drain, a sum of money at 5% equal to 75% of the total cost of the drainage scheme, providing such sum does not exceed \$1,000, to any one man. This money is repayable in twenty or ten equal annual payments. Each payment equals \$8.02 in the case of the twenty-year loan, and \$12.95 in the case of the shorter term.

If You Wish Immediate, Practical, Timely Information Upon:

- The details of the government loan arrangement;
- How to secure a loan for drainage purposes;
- How to secure a drainage expert to make a survey of your farm, services free;
- Any point regarding the interpretation of the drainage laws;
- How to secure an outlet;
- How to get in touch with a traction ditcher;
- How profitable drainage would likely be on your particular farm;
- Any specific question regarding the installation of drains according to your particular requirements;

Where and how best to secure tile according to your locality;

The latest regarding open ditches and water furrows;

Or any other practical question concerning farm drainage, write the office of the Commissioner of Agriculture, Parliament Buildings, Toronto, Ont.

When writing for information kindly give full particulars regarding your particular problem and conditions. Otherwise the reply cannot be other than of a general nature.

For full, general information write the Office of the Commissioner of Agriculture for Bulletin 174, Farm Underdrainage—Does it Pay?; and Bulletin 175, Farm Drainage Operations.

An object lesson in drainage profits, as shown by the Drainage Department, Ontario Agricultural College.

Post Office	County	Crop	Yield per acre in bus.		Bushels increase	Value of increase per acre
			Drained	Undrained		
Results From Drainage on Loam Soils, 1916.						
Glanford	Wentworth	F. Wheat	25.4	15.0	10.4	\$13.52
Cayuga	Haldimand	F. Wheat	23.0	11.0	12.0	15.60
Harrowsmith	Frontenac	Oats	26.6	5.7	20.9	10.45
Belleville	Hastings	Barley	26.0	12.2	13.8	11.04
Stewart Hall	Peterboro	Hay	2.65	1.20	1.45	11.50
			tons	tons	tons	
Results From Drainage on Clay Soils, 1916.						
Beachburg	Renfrew	S. Wheat	15.76	11.82	3.94	5.12
Hagersville	Haldimand	Oats	32.7	22.4	10.30	5.15
Stevensville	Welland	F. Wheat	25.00	22.10	2.90	3.77
Norval	Halton	Oats	47.1	38.3	8.80	4.40

In each case half of the field was completely tiled, the other half remaining as before. Each field had a crop before the experiment. Fields varied from 6 to 19 acres in extent.

The Ontario Department of Agriculture
PARLIAMENT BUILDINGS, TORONTO

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