

ITEMS FOR AND ABOUT THE FARMER

HOW THE TRACTOR WAS USED WITH COMMERCIAL FERTILIZER

Figures Given Herewith May Prove of Great Interest to Canadian Farmers While Faced With the Labor and Feed Problem.

If America is to live, we must raise a maximum amount of food in 1918. It isn't a question of ability. It is one of absolute necessity!

Food includes beef, mutton, pork, poultry, corn, wheat, oats, rye, barley, potatoes, turnips and all that contribute either to the table or to the ration of farm animals.

No need to rehearse the story of starving millions in Europe, of millions of patriots in training camps, of the destructive power of the devils of Berlin and their secret vessels in the midst. For our own preservation our 1918 yield must be maximum, states Prof. Henry G. Bell in *The Manufacturer's Record*.

We have no patent for favorable growing weather next spring and summer. All the more reason why we should consider the means of increasing the needs of our allies, who at present are fighting our battles, and the needs of our home folk. All the more reason why we should actually put knowledge into practice.

I venture the opinion that 60 per cent of the poor corn now in the middle west could have been changed to high-grade corn if we had only done last spring what we know.

But this is no time for regrets. The rapacious Hun is on the road to America, determined on pillage and destruction of property and the absolute wiping out of the principles of democracy. The great red line of gallant Belgian, British, French and American heroes, is all that holds him back. American farmers are behind their defenders. Nineteen-eighteen crops must show the world that this is so.

In a month or two every state will be actively campaigning for maximum crop acreage. Every man is urged to increase total crops will be urged, and rightly.

The farm tractor has made possible the working of large land areas. Especially has the tractor been useful for the first stage of soil preparation, the plowing and the reduction in cost of plowing under favorable conditions has been made possible by tractor power.

The careful use of stock manures and abundant use of fertilizers has made it possible for farms that employ these means of crop increase to the full to have an average of one acre of what is produced on hungry, half-starved soils. Not only has this been the case in good seasons, but in poor and good seasons alike; in fact, proper crop feeding under the best conditions has paid a higher per cent on investment in bad seasons than in good.

Larger areas worked by tractor. Larger yields produced by fertilization.

A new idea? No! An idea that was put into practice in England during the last dark days of America, when the sons of America fought and died so that a great basic principle of democracy should live.

In 1861 John Prout of Sawbridge-worth, Eng., began operating a farm of 450 acres, or rather a combination of two farms totaling this acreage, employing as his principle power, steam tractors, and as his source of plant food, fertilizers.

Did he succeed? Did it pay? Didn't he keep live stock? What effect did the system have on the permanent productivity of the farm?

These are the practical questions an average American farmer wishes answered.

Let Prout defend his own case. He considered the following things indispensable to most economic farm operations:

- (1) Effective soil drainage.
- (2) Fields of considerable dimensions.
- (3) Straight fences.
- (4) Sound head-land roads.
- (5) Convenient field water supply.

Item number five is about the only thing that is not essential in the operation of a similar area at the present time, since gasoline engines use but little water.

Before discussing Mr. Prout's figures let it be noted that this article is not intended as an advocate of farming without live stock, or of continuous cropping without systematic rotation, both of which practices Mr. Prout followed on his own farm. The only live stock that were kept on the farm were from six to eight farm horses, and one cow to supply milk and butter for the household.

The story shows what can be done under extraordinary conditions by the record of what has been done. The spring of 1918 will see many farmers in the middle west, on account of shortage of farm labor, reducing the number of live stock which they have normally kept. It will furthermore see many large farms where enormously more food cereals could and would be grown if the owners could be assured of the profitable returns of intensive grain growing under present war conditions. Necessarily, the question of labor shortage will apply under such conditions; however, government and industrial agencies of all sorts are co-operating with the farmer to the extent of supplying sufficient labor this coming summer.

Now, as to some of Mr. Prout's figures. When he had remodelled his farm, Mr. Prout laid out the farm in areas in nine rectangular fields, approximately 50 acres each. As an average of 13 years he plowed 429

acres of the 450 per annum. As an average of 13 years, from 1866 to 1878, his farm had plowed 429 acres, or approximately \$2545 per annum. Mr. Prout's expenditure for fertilizers has averaged \$12.50 an acre. His soil was a heavy clay, fairly rich in potash, but for the best producing of cereal crops, requiring phosphoric acid and nitrogen. These items, naturally well supplied with lime.

In Mr. Prout's typical yearly outlay statement he figured the land at a rental of about \$1.00 an acre. The necessary expenses were included a 5 per cent interest on working capital as well as depreciation in equipment and horses. These items, along with annual expenditures for manures, seed, etc., totaled as an average of 13 years, \$16,500 per annum. The profit account is analyzed into three columns, the first covering 13 years, 1866 to 1878; the second, the first nine years of the period; the third, the last four years of the period, as follows:

	Aver.	Aver.	Aver.
13 years	9 yrs	4 yrs	
1866-78	1866-74	1875-78	
Returns	\$22,545	\$22,120	\$28,490
Less expenses	1,000	1,000	1,000
Gross returns	\$21,545	\$21,120	\$27,490
Less outlay	16,500	16,795	16,175
Net profit	4,945	4,325	6,315

The average of the last four years (Column 3) shows the financial returns when Mr. Prout's system was established. He made \$515 per annum on an investment of about \$40,000, an interest rate of a little less than 8 per cent. But mark that this rate of interest (8 per cent) was made in years when the price of wheat ranged from \$1.32 to \$1.86, average \$1.52 a bushel in England. These prices are far exceeded at the present time.

Now, as to the permanent effect upon the soil of this great farm, the problem was submitted to the renowned soil authority, Dr. Voelcker, who gave it exhaustive study. He summarized his findings in the following sentence:

"It is difficult to reason why, with this system of manuring and an occasional dead summer fallow in order to give a thorough cleaning to the land, Mr. Prout should not be able to grow wheat or other crops profitably for an indefinite number of years without injury to his land."

As to the kind of fertilizer Mr. Prout used, in recording the purchases of sheep manure, he mentions one of great value, Peruvian guano, a mixture of soda and kainit. With the exception of guano, all the foregoing carriers of plant food are found in modern fertilizers; hence the results obtained are not surprising under the conditions possible under present conditions.

Mr. Prout's experiment is of special interest to American farmers at the present time, first, because he employed tractor power for the major operations of a large farm long before modern gasoline power was thought of; second, because he successfully produced large acreages of wheat and other grain which could be maintained the fertility of the soil by the use of commercial fertilizers entirely, and by so doing not only made a material increase in his annual net returns from the farm but actually increased the productivity of his land.

Condensed Information for Farmers and Their Clubs

News of the Crops and Farms From All Parts of Ontario.

QUEENSVILLE.

The annual meeting of the Queensville Agricultural Society was held in J. L. Barrett's harness shop on Friday, Jan. 18. There was a good attendance and the secretary's report was very satisfactory. The society had a very good year with a good harvest of wheat, oats and barley. The society's funds are in a good state and the officers were elected for the coming year. Silas Sennett was called to the chair and the officers were elected: President, John Fairbairn; 1st vice, Silas Sennett; 2nd vice, M. A. Ramsay; secretary-treasurer, A. T. Watt; directors—W. A. Burkholder, J. D. Moore, Fred Johnson, J. L. Barrett, Marvin acid and nitrogen. Henry Wright, Geo. Richardson, C. A. Doan; auditors—Sam Miller, Frank Milne.

It was decided to hold the fair on the 8th and 9th of October.

SMITH'S FALLS.

S. B. McCready of Toronto, assistant secretary of the organization of resources committee of Ontario, was in town yesterday. During a conversation he expressed the opinion that Smith's Falls should not summer produce sufficient potatoes to supply every family in town for a year. An acre of potatoes, he said, would feed about forty persons, and he believed if the matter was taken up early it would be possible to have town people put in at least 200 acres.

THRESHERMEN PROTEST.

A large number of speakers were heard Wednesday afternoon at the York County Council meeting regarding the grievance of the threshers, who claimed they were handicapped, owing to the effect of the "Loading of Vehicles Act," which prohibited the traveling over the roads of vehicles carrying over a certain weight, and also prohibited the use of contrivances on wheels which are likely to damage the roads. The threshermen say they cannot move their threshers from one place to another without resorting to the use of spikes or lugs.

E. A. James, county engineer, retires at his own request, and stated that there were not more than half of the 85 machines in the county outside the law. On his suggestion, John Smith, of Ravenshoe, James Ireland of Maple and V. Middleton of Weston, three threshermen, were appointed to confer with the committee of the council.

BOWMANVILLE.

Miss Helen L. Carruthers, Middleville, Darlington, north of Bowmanville, has a flock of 69 White Wyandotte pullets which are truly "doing their bit" nobly to help production. Nine were hatched April 19 and six between May 1 and June 5. The first pullet began laying Oct. 31. During November they laid 205 eggs. December, 68, January 1922 and the first four days in February 160.

AURORA.

J. W. Tilson of King township sold a hog to W. J. Knowles of this place on Wednesday, which weighed 477 pounds, and realized \$95.40.

Speaking recently in Vancouver at a meeting of the directors of the exhibition association, Mr. Gale of this city endorsed the suggestion that a municipal pigsty should be established, thus assisting in the campaign for reduced hog production. The mayor added that he had given considerable thought to the subject and that he had a site in view. Not only was he in favor of a municipal pigsty, but he also thought that the pig production among citizens should be encouraged by granting premiums to boys or girls or adults for the best results obtained in individual hog-raising.

MOUNT ALBERT.

The next regular meeting of the Mt. Albert branch of the North York Women's Institute will take the form of a banquet and be held in the Presbyterian Sunday school room on Thursday, Feb. 14, at 8 p.m.

EKFRID.

L. N. Mawhinney has sold his farm in Ekfrid to Neil McFarlane for \$10,000. Dan McLean has sold 100 acres of his land near Ekfrid to George Lee, and purchased W. J. Mawhinney's farm for \$5500.

BLUEVALE.

Regular monthly meeting of the Women's Institute will be held in the Foresters' Hall on Thursday, Feb. 14, at 8 o'clock. The speakers will be Rev. C. Tate and Mrs. R. Black, Mrs. E. Shaw, presiding secretary.

LEAMINGTON.

Leamington council purchased two carloads of potatoes and disposed of them to citizens.

EXETER.

The South Huron Board of Agriculture will hold special meetings for farmers on Tuesday, Feb. 12, in the hall, Farquhar. The speakers are W. C. Shearer of Bright, A. J. Falls of Millbrook, and Miss M. V. Powell of Whitby, who will discuss live subjects. Afternoon session at 2 o'clock and evening session at 7 o'clock. The evening meetings are joint affairs.

EAST LUTHER.

James Cunningham on Saturday purchased Jos. Wood's farm in East Luther.

COLBORNE.

"Pigs in pigs" still, it seems. A. Somers, Dundonald, near Colborne, sold 23 hogs to J. E. Aylea & Son, Ltd., which he received \$1187. One hog brought \$104, E. E. Malloy & Son also paid \$104 for one hog raised by Fred Church, Cramshaw Township.

AYLMER.

E. C. Maguire has sold the Evergreen farm at Yarmouth Centre to G. Ball of Dorchester.

MEETINGS THIS WEEK

Monday—Ontario Plowmen's Association, 22 College street, Toronto.

Tuesday and Wednesday—Ontario Association of Fairs and Exhibitions, 22 College street, Toronto.

Thursday—Ontario Vegetable Growers' directors' meeting at the secretary's office, parliament buildings.

Friday—Ontario Vegetable Growers' Association, 22 College street, Toronto.

BORLAND ASSERTS PLAN IS GOOD ONE

Says Idea of Galt Man Regarding Standard Breeds, Good.

STIMULATE INTEREST

Suggests Meeting of Breeders and Farmers to Discuss Question.

Farm Editor, World: I was very much interested in V. I. Thurford's letter, published in your issue of Feb. 4, as to increasing the interest in the production and market prices of standard bred horses. It seems to me he is headed in the right direction in the way of securing practical results.

Would it not be a good idea for the Canadian Standard Bred Horse Society to call a meeting of its members, inviting also all proprietors of farms making a specialty of standard breeds (Crucifixion Park, Galt; Ashley Stock Farm, Foxborough, etc.), also all individuals who have stallions, mares, or young stock recorded in the society's books at Ottawa to discuss the whole question?

I notice that this week the Thoroughbred Horsemen and Dominion Short-horn Breeders' Association have been holding meetings, at which their special interests have been carefully considered. Why not get the standard bred men together for a similar purpose? Hoping for speedy and effective action, yours very sincerely,

Wm. Borland.
Orilla, Feb. 6, 1918.

COLBORNE.

"Pigs in pigs" still, it seems. A. Somers, Dundonald, near Colborne, sold 23 hogs to J. E. Aylea & Son, Ltd., which he received \$1187. One hog brought \$104, E. E. Malloy & Son also paid \$104 for one hog raised by Fred Church, Cramshaw Township.

EAST LUTHER.

James Cunningham on Saturday purchased Jos. Wood's farm in East Luther.

AYLMER.

E. C. Maguire has sold the Evergreen farm at Yarmouth Centre to G. Ball of Dorchester.

THE NEWMARKET ERA.

The old cheese factory on Huron street has been used for two or three years as a creamery. On Monday the business of the creamery was moved to the old clothing factory on Prospect avenue, and it appears to be well adapted to the business.

Fair market last Saturday morning. Lots of buyers and sellers, but quantities small.

THE NEWMARKET ERA.

The old cheese factory on Huron street has been used for two or three years as a creamery. On Monday the business of the creamery was moved to the old clothing factory on Prospect avenue, and it appears to be well adapted to the business.

Fair market last Saturday morning. Lots of buyers and sellers, but quantities small.

HORSE BREEDERS SEE GOOD MARKET

Clydesdale Association Directors Say World's Horse Supply is Depleted.

SOME IMPORTANT SALES

Summary of Old Country Prices Should Encourage Canadian Breeders.

The following is a portion of the directors' report as read at the annual meeting of the Clydesdale Horse Association of Canada by the secretary, J. W. Wharton, and should prove interesting to Ontario horse-breeders as a forecast of after-the-war days.—Editor.

The report of the directors at the end of the year and the reconstruction period in the devastated countries of Europe, that will follow the declaration of war, is a source of concern to us, both for breeding and working, will, nevertheless, be a source of hope for the future, as the demand for this country has not experienced for some time. The report of the directors of the world's horse supply, particularly in European countries, cannot be restored to a year or two, and we will take several years to get back to normal and the offspring of mares bred in 1917 will be worth little more when they come to maturity.

A feature of the present situation that must not be lost sight of is that the horse is a great aid to increased production. The campaign for greatly increased production in 1918 cannot but produce increased activity in the horse market this spring.

The latest available statistics on the horse population in Canada show an increase in 1917 over 1916 of about 150,000. In the United Kingdom, the increase was as follows: 1915, 2,996,099; 1916, 3,088,242; 1917, 3,412,439. There has been a gain in Canada since 1915. But while that is the situation for all Canada we find that in Ontario the number of horses has increased since 1915 by over 18,000, the figures for the three years named being as follows: 1915, 906,527; 1916, 896,208; 1917, 887,246. The decrease in 1917 as compared with 1916 is nearly 10,000, something that the horse-men in Ontario should keep in mind.

In reviewing the situation outside of Canada, and especially in regard to Clydesdales, we find the most encouraging evidence of activity. At last fall's auctions in Scotland trade was exceedingly good for stock of the best class. In the ordinary sale at Perth, while the general run was not of a high order, the 31 head breeding stock sold averaged \$123 per head. One three-year-old stallion sold to go to Canada at \$1500. A feature of the Perth sale was the sale of a three-year-old filly by Dunure Foot-

print for \$445. A two-year-old colt by the same sire sold for \$1207.50. On this occasion the late William Ritchie was dispersed. Eight mares and fillies averaged \$1552.50, and 14 stallions \$54 each.

Other noteworthy sales in breeding stock might be mentioned, but it is when we come to the sales of Clydesdales that the true position of the draft horse situation in the old land is revealed. At Leamington on the 23rd day of the sale 80 geldings, three-year-olds and fillies averaged \$571 each, as against \$346.50 in 1916. A black four-year-old gelding by Dundonald sold for \$500 or upwards. The 30 geldings it is stated, have never been equalled in the United Kingdom for animals of this kind. The 55 mares—three-year-olds and upwards—sold on the opening day at Leamington averaged \$486.50, as compared with \$326.50 in 1916. On the second day of this record sale there was a big demand for filly and colt foals, especially when the breeding was fashionable. A filly foal by Dunure Footprint, out of a mare by Montrave Mac, sold for \$2100. A three-year-old gelding averaged \$21 each, one by Dunure Footprint, bringing \$1300. A lot of 15 from the estate of the late William Renwick averaged \$2275. On the third day of the sale 34 yearling fillies averaged \$369.50 and 274 two-year-olds \$476.50.

This summary of a few of the sales and average prices at 1917 Scotch sales should put new life into every Clydesdale breeder. Being nearer the seat of war than we are the farmer in Scotland has a keener appreciation of the horse situation and is not afraid to put up the price for choice-breeding stock.



Conserve Fuel and Save Money

By Replacing Your Rail Fence with a Frost Wire Fence

1.—IT IS A PATRIOTIC DUTY. You have seen by the papers that coal is very scarce in many localities this winter, hence wood will have to be used considerably. You intend to replace your rail fence some day with a wire fence, but now is the time you can get the highest price for your rails, and at the same time help out on the important question of fuel.

2.—IT MEANS A SAVING TO YOU. At present prices, your rails will bring more than a new Frost Wire Fence will cost you. Think of the difference in appearance, also of the greater field space a wire fence will leave you for cultivation. A Frost Wire Fence will greatly increase the value of your farm. It will mean the end of the unsightly weeds, ant-hills, etc that are always associated with a rail or stump fence.

3.—FROST WIRE FENCE IS A PAYING INVESTMENT. It is different and better than the ordinary wire fences because, in the first place, it is made from Canadian-made wire, specially tempered and galvanized in our own wire mills to suit our rigorous Canadian climate. Secondly, it is woven more slowly than other kinds of wire fence and on improved lines of construction, which result in having every horizontal exactly the same length and every upright perfectly straight and evenly spaced. Note also the Frost tight lock. No other wire lock has yet been produced which can equal it in neatness and security of holding.

Help both your Country and Yourself by at once deciding to replace all your wooden fences with the most perfect wire fence you can buy.

If you do not know our nearest dealer's name, write us for particulars.

Frost Fence First
A style for every purpose
Frost Steel and Wire Company, Limited
Hamilton, Canada

HENS
WANTED LIVE.
Also Poultry of all kinds
WALLER'S, 711 SPADINA
TORONTO

FARM IMPLEMENTS
REPAIRS OF ALL KINDS
GEO. W. SMITH COMPANY
Cor. Jarvis and Duke Sts., Toronto

HOLSTEIN BREEDERS, ATTENTION!
SUNNYBROOK FARMS, North Toronto

Have for sale a number of Holstein Heifers and cows of serviceable age. These are from approved Danes bred from 1834 to 2934 lbs. of butter in 12 weeks and are sired by **COUNT FAVORIT SYLVIA SEIGIS**, whose breeding combines the blood of the families that produced the world's only 50-lb. cow, and a 100-lb. 8-year-old cow, as well as the Canadian Champion Cow, 41 lb. butter in 7 days.

While in Toronto, call at 21 Walling-ton street west, and see extended pedigrees, or better still, let us take you out to the farm, only 50 minutes' run from King and Yonge streets. Metropolitan Car, Stop 14, laide 3800; Belmont 184.

SUNNYBROOK FARMS
EGLINTON P.O.,
North Toronto, Ont.

TRUSSES



We are the inventors of 31 different styles of Trusses for use in a full understanding of what is wanted. We examine. Men make a Truss suitable to conditions, and guarantee to secure and make you comfortable.

AUTHORS @ COX
Manufacturers,
135 CHURCH STREET, TORONTO

CLASS ADVERTISING

Help
EXPERIENCED agent for large operating large plant. Must be able to operate pig-trail and mill supply and machinery. Must be able to work in the field. Write to 11, World.

FIXER wanted. Must be able to work in the field. Write to 11, World.

Teach
WANTED—School teacher. Must be able to teach in the field. Write to 11, World.

ROSELENE—Folshaw. Extremities in the field. Write to 11, World.

BOOKS—All kinds. Write to 11, World.

G. H. MARSHALL—Cash prices for all kinds of goods. Write to 11, World.

STOVES AND—Write to 11, World.

Build
LIME—Lump and mason. Write to 11, World.

Bicycles—Write to 11, World.

INDIVIDUAL—Write to 11, World.

DR. KNIGHT—Practice limited. Write to 11, World.

H. A. GALLOWAY—Queen. Write to 11, World.

Electri—Special prices. Write to 11, World.

HOUSE—Write to 11, World.

ALVER'S—Write to 11, World.

WOULD—Write to 11, World.

LOST—Write to 11, World.

HOPE'S—Write to 11, World.

BIRCH—Write to 11, World.

MONEY—Write to 11, World.

IRWIN, HALL—Write to 11, World.

MACKENZIE—Write to 11, World.

MOTOR—Write to 11, World.

BREAKY—Write to 11, World.

FORD—Write to 11, World.

SPARE—Write to 11, World.

LICENSES—Write to 11, World.

PROCTOR'S—Write to 11, World.

BEST—Write to 11, World.

DR. ELLIOT—Write to 11, World.

DR. REEVE—Write to 11, World.

MONEY—Write to 11, World.