

FARM AND DAIRY & RURAL HOME



DEVOTED TO
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AND CANADIAN COUNTRY LIFE



Toronto, Ont., March 21, 1918



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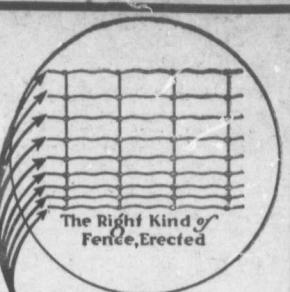
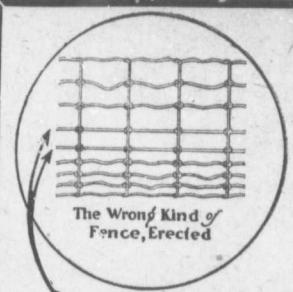
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When Writing Mention **Farm and Dairy**

Cooperative Wool Sale Notes

GREAT interest is being taken by the wool growers of Quebec in the new Canadian Cooperative Wool Growers, Ltd. At present there are 12 local associations which will collect wool, and it is hoped to have 16 more this spring. The wool will be centralized this year at Sherbrooke and Montreal, and sold, if possible, from there. There exists in Quebec a General Produce Cooperative Society which has decided to assist the new organization in collecting and storing the wool collected by the local associations. The local associations are expected to subscribe for about \$20,000 of the stock of the central organization at Toronto.

Sheep raisers in the Maritime Provinces are lending all their support to the "Wool Growers, Ltd."

New collecting points and associations are being formed. A vigorous campaign for the cooperation and sale of wool is being conducted by the Provincial Government officials. The amount of wool for cooperative sales will be increased about 50 per cent this year.

The Ontario clip is to be again collected at the Winter Fair Building, Guelph, where free warehouse space is available, and which means still greater returns may be made to the wool growers. Collecting dates will be from June 1st to July 15th, 1918. Parties desiring to market their wool either before or after these dates may do so by shipping same to the warehouse of the Canadian Cooperative Wool Growers, Ltd., at 123 Simcoe St., Toronto, Ont., where it will be graded and sold for the highest market price.

Wool shipped to Guelph, Ont., for cooperative sale will be acknowledged immediately by mail, and within three or four days' time a cheque will be mailed to the wool grower. This cheque will cover 75 per cent of the appraised value of the wool, the remainder to be paid immediately after the sale of the wool. This means every farmer should receive the greater percentage of the total value of his clip immediately after consigning his wool. For all the Provincial Wool Growers' Associations in Canada the new Canadian Cooperative Wool Growers, Ltd., will act as the selling agency.

Why Color Cheese?

IT seems quite probable that as a result of the experience of the past season the making of colored cheese may be discontinued entirely. With the uniform price for both kinds there was certainly no inducement to make colored, although the Cheese Commission was glad to get what was offered. According to our records there were 364,824 boxes of colored cheese as against 1,511,713 of white. I am rather surprised that there were so many.

The war has interfered with the supply of caustic potash, which is used as the solvent in the best brands of cheese coloring. Caustic potash in pre-war times came from Germany. It is quite possible that some other source may be discovered, if not already, but lacking caustic potash it is better to use caustic soda, which is inferior. As I understand it, cheese coloring made with soda is only about half the strength of that which is made with potash.

While the authorities in England have been asking for a larger proportion of colored cheese, I have not heard any very serious complaint, and if the coloring of cheese were done away with entirely, I do not think there would be any permanent bad effect on the cheese industry. The present situation seems to afford an opportunity of discarding what has been in reality a useless practice.—J. A. Ruddick, Dairy Commissioner.

If you are not doing well as a dairy farmer, find out if there is anything wrong with the "man behind the cows."

Trade inc.

VOL. XX

THREE reasons for the trade increase in comparison with last year, the main reason being that the products, so-called, are more profitable. The third reason was in the unbroken demand to pay whatever price he was offered.

Going more point of view submit the following forces:

(1) The number towns, the cities were two or three and villages a carry.

(2) A large men who have our experienceception of competition, especially, with paratively small charge prices.

(3) Even without the tributary territories, the price paid was to enable the goods still in many in this, but would be to charge reasonable rates.

(4) The price paid in the provinces was to pay the same price buying on credit customer buying interest, the methods of giving increase in price resulting in far would have been credit system between cash and credit.

(5) The credit country merchants result that the price to take credit incurred, this now again having to pay again to such a considerable disadvantage, as the result of unsatisfied debts was handled upon the part.

One of the systems to carry the farmers with this; in most the result of the fact. The country merchant, and should crop failures occur in the development period, a reasonable induced considerable percent been necessary, then well be taken.

It has been in a large number of

The Farm Management Survey in Caledon Township, Ontario

A Comprehensive Survey of the Results of the First Work of the Kind Attempted in Canada, How Various Factors Influence the Farmer's Labor Income—*By A. Leitch, B.S.A.*

In the early part of October, 1917, the announcement was made, in the farm and dairy press, that a Farm Management Survey was about to be started in Caledon township, Peel County, by the Farm Management Department of the Ontario Agricultural College. Although such a step had been under consideration for several years, it was not until last spring that an appropriation was made to permit of the carrying out of the work. Actual field operations were commenced on October 8th.

During October and November, records of one year's business transactions were taken for each of 113 farms in Caledon township. The records were itemized to show the total value of the sub-division of the farm into woods, waste, pasture land, and acres under different crops, per acre of all crops, sales of cash-crops, feed and seed bought, live stock on hand at both the beginning and end of the year, together with purchases and sales of stock during the year, and receipts from stock products, current expenses, an inventory of buildings and machinery, with an estimate of the value and future life of each building and machine. In the current expenses was included a charge for all labor, save that of one man, who was called the operator. Any unpaid family labor was charged at what it would have cost if hired. No account was taken of what was supplied by the farm directly to the table.

How Labor Income is Calculated.

From the figures so obtained, the "labor income" for each farm was calculated. From the net receipts of the farm (after deducting all current expenses and depreciation on buildings and machinery), interest at 5% on the total capital invested in the farm. The remainder was termed the "labor income" of the operator—or the amount of money which he received for his labor and supervision. As the labor income is what the farmer is working for, the purpose of the survey is to determine what influence each factor in the farm business exerts upon it. The basic of study is the comparison of the methods of those having high labor incomes with the methods of those having low incomes.

Not all of the 113 records, however, were found to be available for study. Owing to scarcity of labor, and the general rush of fall work, many men were unable to thresh their crops until very late in the season. For this and some minor reasons, individual cases, or only 82 records could be used in the final tabulations. With such a small number of farms, only a very limited number of factors could be studied. All comparisons are made for the average farm; that is to say, the individual farms are grouped according to the particular factor under consideration, and averages taken for each group. Now, when the number of farms is sufficiently large—say 400 or more—the "law of averages" will eliminate all factors, save the one being studied. But with a small number in each group, the average may be affected by some other influence.

How Few Farms Hinder Deductions.

For instance, if the factor of "Live Stock Efficiency" were being studied, the farms would be divided into several groups, according to receipts obtained per live stock unit. With a large number of farms in each group, the average "number of acres per farm" would be approximately the same in each group—the proportion of small, medium-sized, and small farms in the group having lowest efficiency would be the same as those in the other groups. This would get rid of the factor of "size of farm." Likewise, all other factors would be eliminated by this law of averages, save the factor of "returns from live stock," according to which the farms were grouped. Then, any difference in the average "labor income" could be attributed directly to the influence of live stock returns.

All other factors may be studied in like manner, and in certain cases the influences of two factors may be studied together. But, it may be seen quite easily, that where the total number of farms is small, and the number in each group consequently very small, the "law of averages" cannot play such an important part in the analysis. Hence, the reason for such limited results from the Caledon survey.

As far as possible, an analysis was made of the facts brought out by 82 complete records taken in Caledon township, and some very interesting results were obtained—results which may be applied to any "mixed farming" area in Ontario. There is practically no specialization in the surveyed area. Three "cash-crops" are grown, for extensively, wheat, alfalfa, clover seed, and potatoes. Only two of the surveyed farms could be classified distinctly as "dairy" farms, though most of the farmers sell cream during the summer months. Beef cattle and hogs are the main sources of income, while sheep are beginning to occupy quite an important place in the farm business. The percentage of rough pasture land is fairly high—though certain farms are probably 88% tillable.

In order to compare farms on which the percentage of waste land or unutilizable pasture land was com-

pared, the capital invested in buildings and machinery varies more or less directly with the total farm capital, it is somewhat higher on the small farms—37.7% as compared with 32.7%. And this higher percentage, deducted from an already small total capital, leaves a much too small amount of productive capital to support a relatively high labor income. In the second place, the cost of labor and horse labor is more costly on the small farm than on the large. On the small farms one man performed the labor on only 46.9 acres, and one horse on 18.8 acres, whereas, on the large farms one man performed the labor on 63.4 acres and one horse on 22.5 acres. Nor were the small farms farmed more intensively. In fact, the average crop yield per acre on the small farms was 11% lower than on the large farms. The highest crop yield averages were on the two intermediate farms, these being about equal, and being 20% higher than on the small farms.

An Individual Farm.

In sending reports to the individual farmer, the figures which were taken, the actual figures for the farm are inserted as in Table 1. The figures are inserted in the column in which the farm was placed, and so each farmer may compare the figures of his own farm with the average figures for that group, at the same time as he compares the averages for the different groups. By using the actual figures for one of these farms, this may be demonstrated more clearly. (See "Your Farm" in Table 1.)

This farm was under 85 acres in extent, and hence belongs to the first group. In size it is slightly larger than the average, but the capital investment is somewhat lower. In machinery this farm is, but very meagerly equipped, which may be the cause, to some extent at least, of the cause, to being only 40% of the average for the district. The quality of the live stock is also very low, each unit yielding a gross receipt of only \$40.30, or a profit over feed consumed of only \$4.20. The net result is the pitifully small income of \$221 for the operator's twelve months of hard labor. The figures show clearly that, unless one of this farm must have, before he can make even a moderately high labor income, a sufficient capital at a reasonably low rate of interest, that he may be able to equip his farm with proper machinery and better live stock.

Similarly may conclusions be drawn by each man from the actual figures for his farm, shown on the report sent to him, and he may at the same time compare his own farm with the averages for the other groups.

Table 2 shows the relative influence of crop and live stock production on the labor income. Owing to the difference in average size of farm in the various groups, the "Labor Income per Acre" has been calculated. It will be seen on comparing both groups with live stock below the average, that an increase in efficiency of crop production means an increase in labor income of \$469—or a increase of \$3 per acre. Likewise in the groups with live stock above the average, an increase in

Influence of Good Crops and Good Stock.

Table 2.

	Live Stock Below Average		Live Stock Above Average	
	No. Farms	Average size	No. Farms	Average size
Crops Below Average	26	21	112	119
Average	1508	1508	19047	19047
Labor Inc. per acre	\$4.70	\$4.70	\$9.35	\$9.35
Crops Above Average	14	21	12	12
Average	1277	1277	1590	1590
Labor Inc. per acre	\$7.70	\$7.70	\$12.75	\$12.75

crop production increases the labor income by \$483—or \$3.40 per acre. But on comparing the two groups with live stock below the average, it is seen that an increase in returns from live stock adds \$53 to the labor income—at the rate of \$4.65 per acre. And comparing the two groups with crops above the average, we find that an increase in stock returns

(Continued on page 7.)

Is Alfalfa.

THE pressing question on labor is on in Canadian agriculture to the two farmer and the producer.

With a serious production by the farmer, However, the number, and, under the new conditions, the one to be made even well as in quality.

In our opinion, answers this problem to advantage under existing conditions, and geographical range, any other forage, all kinds of forage, on the field, pasture, etc., is relatively little value to yield heavy character a good annual, as no grass, and for this reason command special farmer handicaps.

Tin.

It may be obviated an immediate and urgently-needed, mendable forage, because it takes a long time to grow.

It is true that the greatest possible demands of Canada, therefore, every outfit to relieve the situation in Canada will be to produce not only this year, nor next year, nor the year after production. On the peace, the necessary soil will likely be in view of this it is to prepare for the crops are concerned paid to alfalfa as is likely to be the case.

How About

Some Neighborhood

WHEN I was Representing

Provinces of Ontario and Quebec in their proposed legislation, it seemed that Dr. Crevelock has suggested threshers carry gang of men to them who shall with the outfit through the threshing season, and do most of the work. This outfit may consist of four or five men to handle work in the mow, a full gang may be carried to do all work with the farm around to look after the grain. Sleep accommodations for the men will be provided in a house built on wheels that go along with the outfit. The farmer will be expected to feed men. I asked about the cost of the method, and our representative said thought it would about five bushel for oats a six cent a bushel wheat where a man gang only was carried. When he

The Best Forage Crop

Is Alfalfa, Says the Experimental Farm

THE pressing need for increased farm production, on the one side, and the scarcity of farm labor on the other, have created a situation in Canadian agriculture that is somewhat embarrassing to the two chief parties concerned, viz.: the farmer and the consuming public.

With a serious shortage of farm labor confronting the producer, it will be difficult to increase farm production by expanding the acreage under crops. However, the need for increased production remains, and, under the circumstances, there seems to be only one way to make the best of the situation, and that is to make every acre produce more, in quantity as well as in quality, than it has produced in the past.

In our opinion there is no forage crop that better answers this purpose than alfalfa. It can be grown to advantage under a diversity of soil and climatic conditions, and has, generally speaking, a wide geographical range of usefulness in Canada than any other forage crop. Alfalfa is a choice food for all kinds of farm animals and produces more economical feed per acre than does any other hay or pasture crop. It, furthermore, requires comparatively little labor. Once well established, it continues to yield heavy returns. On account of its lasting character a good deal of money and labor is saved annually, as no re-seeding is necessary for years, and for this reason, if for no other, alfalfa should command special attention just now from any farmer handicapped by scarcity of labor.

Time to Get Established.

It may be objected, though, that just now, when an immediate increase in farm production is so urgently needed, alfalfa may not be the most commendable forage crop, in spite of all its merits, because it takes a year to get it established as a paying crop.

It is true that there is an urgent need for the greatest possible production to meet the immediate demands of Canada and the Allies, and that, therefore, every ounce of energy should be mobilized to relieve the situation as quickly as possible. But Canada will be called upon to produce record crops, not only this year, but for many years to come, peace or no peace. The mere ending of the war will not bring about a relaxation of the efforts in farm production. On the contrary, with the return of peace, the necessity of making the most out of the soil will likely be felt more keenly than ever before. In view of this it would seem to be a good policy to prepare for the future now, and, as far as forage crops are concerned, special attention should be paid to alfalfa as a crop that, better than any other, is likely to fill the bill as the crop of the future.

How About Threshing Gangs?

Some Neighbors' Opinions—By L. K. Shaw

WHEN I was in town last Saturday our District Representative asked me what I thought of the threshing gangs to do the threshing in the Province of Ontario next fall. I replied that I needed more light on the subject, so he outlined the proposition. It seems that Dr. Creelman has suggested that threshers carry a gang of men with them who shall stay with the outfit all through the threshing season, and do the work of the work. This outfit may consist of four or five men to handle the work in the mow, or a full gang may be carried to do all the work with the farmer around to look after the grain. Sleeping accommodations for the men will be provided in a bunk house on wheels that goes along with the outfit. The farmer will be expected to feed the men. I asked about the cost of the method, and our representative said he thought it would be about five cents a bushel for oats and six cent a bushel for wheat where a mow gang only was carried. When he had

explained the whole system our representative asked me to talk it over with the neighbors and find out what they thought.

My chance came that evening at the Farmers' Club. Four of us had agreed to be sitting in the corner behind the stove before the meeting started, and I outlined to them the scheme for threshing in gangs. At first it was enthusiastically received. Immediately all three had visions of more time for fall plowing and other necessary fall work. One of them remarked that it could be put in one and one-half weeks, another returning threshing help, while another had put in almost two weeks and the third over a week. "But what will be the price?" was the next question. I said that the District Representative had mentioned five and six cents where only a few gas was carried.

"Well," said one neighbor, "they should thresh at least 100 bushels of grain a day. At five cents a bushel that means \$50. Seems high to me. We pay \$20 a day now for the machine. The five extra men at three dollars a day would amount to \$15. That is only \$35 altogether. What does the extra \$25 come in?"

"And even then we may not have to return all of our labor we would still have to go out three or four days in return for stack meat," remarked another neighbor. "I don't see where we can help but lose, unless that \$25 can be accounted for."

We talked the subject over a good deal after that. We wondered just what some of our local threshers would think of the proposition. We wondered how one or two of them would manage to finance such a scheme in general, however we were hopeful that the plan could be worked out. We would all like to hear the experience of farmers in Lambton county where our representative said there were four such gangs working last season.

More and Better Wool

Care of the Flock Influences Clip

FEW farmers realize that the weight of wool from a poorly wintered flock is not as large as the weight of wool from a well wintered flock would be if properly cared for. Experiments show that with proper feeding and management the weight of the fleece may be increased by one pound and that with growing stock even better results may be obtained. Good care not only increases the weight of the fleece, but it improves the quality of the fiber thus raising the market value of each pound of wool produced and with dollar wool in sight flock owners cannot afford to overlook factors that increase weight and improve quality.

Feeding is one of the big factors affecting wool growth and quality. Sheep require a ration that will supply all body requirements and at the same time



A Fleece Properly Prepared for Rolling.

provide sufficient material for wool growth. Wool growth requires that considerable quantities of protein be supplied, and on this account rations for sheep should never be too low in protein. Timothy hay, on account of its high fiber and low protein content, is a poor feed for sheep. Clover and vetch may supply almost a balanced ration for sheep, especially if a succulent feed in the form of roots or silage is added. When clover and alfalfa are not available the protein content should be made up by adding a feed that is rich in protein.

Exercise is important in that it ensures good health. It stimulates the appetite and improves circulation. Feeds are better utilized when their digestible constituents are distributed to better advantage throughout the body. Sheep are naturally active animals and close confinement or lack of exercise at once affects their general health, and unless the flock is maintained in good health the growth of wool is less vigorous.

Buildings for Sheep.

Buildings for sheep may be too warm, too damp or draughty, all of which should be avoided. Warm buildings cause the sheep to perspire unduly, a condition which affects wool properties. Damp or draughty buildings are likely to cause disease in the flock. Sheep should be housed in cool, dry, well-ventilated buildings, and where properly housed wool properties which are affected by physical conditions are retained.

Proper equipment has much to do with wool quality and weight of fleece. Any equipment which does not ensure a clean fleece is decidedly inferior. Carelessness in feeding may also result in depreciation of fleece. Seedy and chaffy wool is usually the result of poor equipment or carelessness in feeding. Seeds and chaff in the fleece absorb the wool grease and often obstruct the secretion towards the outside of the fleece.

Such wool can be considered nothing more or less than rejection wool, and is much less valuable than wool which retains its natural yoke together with the other handling qualities which ensure strength of fiber. The practice of throwing feed from a loft or of carrying forkfuls of hay through the yard with the sheep about is sure to result in the introduction of more or less chaff into the fleece. Sheep should always be penned off while feed is being thrown out or placed in the racks, or better still, if chutes can be built direct from the loft to the racks, greater convenience is provided.

—A. A. MacMillan,
Macdonald College, in
the Journal of Agriculture.



The Tractor's Strongest Competitor is a real, good Four-Horse Team—and a Double Disc Harrow will do good work with either Power.

Both in East and West the tractor is conceded as an excellent power in plowing, dicing and on the belt. It is still a disputed point, however, as to its adaptability for handling the seeders and the binders.

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Farm Opinion of Crop Prospects

THE amount of plowing accomplished last fall will be an important factor in determining crop prospects for the next year. Following is the evidence of several representative farmers as told to editors of Farm and Dairy in conversation recently:

"There is not as much fall wheat as there was last year, but not more than in the previous year. More fall plowing was done than in 1912 and prospects are for a good acreage of spring grains. Things on the whole are better than they were a year ago." —A. S. Stevenson, Wentworth Co., Ont.

"I do not believe that farmers in our section of Oxford County got half of their fall plowing done that had not been for the last few 10 days lots of farmers would have had no plowing done. Even as it is, there are a few who have not a furrow plowed." —A. E. Hulet, Oxford Co., Ont.

"There is not as much fall wheat sown as usual. I myself expected to put in 24 acres, but seeded only 14.

When I tried to plow the other 10 acres it was so dry I couldn't get a good furrow plow, but when we were well done some of the area is ready for next year's crop. There was lots of time to plow, as we had little corn to handle owing to the failure of that crop." —Victor Begg, Elgin Co., Ont.

"The fall closed with the work pretty well done. An odd one didn't get their plowing finished before most of us were through, when the ground froze, the late, open weather helping us. Fall wheat, however, is down in acreage and went into the winter with little top." —Frank Webster, Victoria Co., Ont.

"Fall wheat, owing to dry weather, was seeded late and further dry weather prevented it coming up. The top is weak and unless we have an exceptionally good spring there won't be much fall wheat. We got the government tractor to plow 30 acres and this helped us out greatly. Taking the district as a whole, fall work is not up to the average. Formerly we used to plow twice and disk to stop the weeds. None of this fall

cultivation was given this year. I do not know of a farm in the townships of Brantford or Galt that has not been raised to 25c. The greatest good done by this association, not only this year, but since its beginning, was to raise the general price of eggs in the Province. Not only did it do great good to its own corporate members, but to everybody who had eggs to sell. People, therefore, who are not members, should make use of the work of this association and should speak a good word for it, though they be not members.

The Co-operative Wool Association is another association that works both directly and indirectly to the good of members and non-members. It is pleasing to note that this association had a prosperous year and is growing better as well as larger and stronger. Cooperation is the way. Farmers are working together in cooperation. Let us all encourage cooperation. Like money, it helps all around, except the middleman, that parasite who absorbs the 65c of the farmer's dollar, the farmer getting but 35c of the \$1 he produces. —J. A. M.

Bank of Montreal financed the institution last year to mutual advantage of both parties. The price of eggs was raised to 25c. The greatest good done by this association, not only this year, but since its beginning, was to raise the general price of eggs in the Province. Not only did it do great good to its own corporate members, but to everybody who had eggs to sell. People, therefore, who are not members, should make use of the work of this association and should speak a good word for it, though they be not members.

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THERE are four important things that should be considered by every person when buying fencing this season.

- 1st—*The reputation of the manufacturer.*
- 2nd—*The quality of his product.*
- 3rd—*The value.*
- 4th—*The length of service.*

The higher the manufacturer's reputation the more jealously he guards against anything that would tend to injure it. A manufacturer with a continent-wide reputation for integrity, square dealing and the honest quality of his products, such as has been attained by the Frost Steel and Wire Company, is always eager to maintain his position as the leader in his line. The Frost reputation and leadership insures a safe fence investment to the buyer.

No other fence-maker in Canada or any other country puts more downright quality into his fence than the Frost Steel and Wire Company. Frost Fence is not made of ordinary commercial wire. We buy the raw material and draw it

into Frost Full Gauge No. 9 Hard Steel Wire. We put that elastic "give-and-take" into it that has made Frost Woven Fence famous for the strains it will bear. We also put that coat of pure zinc spelter on the wire that makes Frost galvanizing stand the Canadian weather as no other fence has ever been able to do.

Frost Fence has always been sold at a price that is eminently fair considering its superior quality. Frost Fence could be sold for less money if we used ordinary commercial wire and ordinary fence locks, and rushed it through the factory instead of weaving it slowly on our special machines, so that every stay stands up straight and true and the spacing between wires is always absolutely accurate. Every dollar invested in Frost Fence is a dollar wisely invested—one that buys years of service.

Many thousands of Frost Woven Fences have been erected in Canada. If you could see a Frost Woven Fence that has been doing service for several years and note how little it has been affected by the stress of weather and the strains of leaning cattle, you would have conclusive proof of the enduring quality that the name "Frost" stands for. Write and ask us for dealer's name and a copy of our fence catalogue showing styles for every farm fencing purpose, including ornamental fences and gates.

A style for every purpose.

Frost Steel and Wire Company, Limited, Hamilton, Canada

The Farm
(Continued)
means an additional income upon which we make a profit with both credit and the group with the stock increased, the is \$469, or \$3 crores the same increased, the \$539, or \$465 million in the area opportunity for come here in the live stock.
To What Extent

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Labor income per

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No. 8360
Two-section Appliance
Tensioner. Two sections of
mesh, 20 ft. long, 10 ft. wide,
is equivalent to pull
load of over 3,000 lbs.

MCKINNON INDU

The Farm Management Survey

(Continued from page 4.)

means an addition of \$551 to the labor income—or \$5.65 per acre. Otherwise, if we make a comparison of the group with both crop and stock below the average with the group immediately above and the group to the right, we see that with the stock the same and crops increased, the raise in labor income is \$469, or \$3 per acre, whereas with crops the same and stock returns increased, the raise in labor income is \$539, or \$4.65 per acre. Thus, the conclusion is necessarily reached that in the area surveyed, the greatest opportunity for raising the labor income lies in increasing the quality of the live stock.

To What Extent Does Good Feeding Pay?

Table 3.

Feed fed. per L.S.U.	Under \$43	\$43-60	\$60-66	\$66-70	Over \$70
Average cost per L.S.U.	\$36.46	\$45.90	\$54.21	\$62.62	
Receipts per L.S.U.	\$61.75	75.74	78.74	77.09	78.41
No. farms 16	14	14	17	17	17
Average size 168	129	129	116	98	722
Labor income 904	1341	1194	967	722	
Labor income per acre 9.2	9.8	8.6	7.8	7.5	

This table adds further proof to the well-known law that after a certain degree of production has been reached, a higher degree cannot be attained without lowering the net profits. The cost of the final return is more than the sale price. The amount of feed which may be fed profitably of course, depend upon the quality of the stock. With the average of Caledon Township stock, approximately fifty dollars' worth of feed may be fed profitably. It will be seen that the receipts per live stock unit in the

expenses and leave more than a very small labor income for the operator.

2. High profits from live stock have a greater influence on labor income than have high crop yields.

3. The quality of the live stock determines the amount of feed which may be fed profitably. Heavy feeding to stock of low quality means a loss rather than a gain. In order that the crops grown may be fed upon the farm to keep up the soil fertility, and at the same time yield a profit, the quality of the stock on a great many farms must be increased.

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You will receive the highest prices if you ship your skins to us. Money talks; that is why we do the largest cash business in Canada.

HALLAM'S TRAPPER'S GUIDE—56 pages, full color, what and where to trap. Hallam's Trapping Catalog, 36 pages, also Hallam's Trap News, giving latest news and reports. All free to any who write to my.

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RAW FURS
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TWO-PIECE
STEEL HAMES

Pulling a "dead weight" load means that a hame will never break unless over its tested strength. Dreadnaught two-piece double steel hames have a pulling capacity 15% greater than any other hame.

Strongest Construction—Will Not Break.

Overlapping parts reinforce points of greatest strain. Draft steel forged steel; rings specially designed. Rigidity inspected and mechanically perfect in every detail.

Write for descriptive folder. Dealers write for our proposition and selling help.

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Frontal Aperture Standard
Two-Inch. Total width of hame is equivalent to pulling a load of over 20,000 lbs.

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**"METALLIC"** stops Fire Losses

and sound business sense demands fullest fire protection for high value crops, stock and implements

There is no economy in saving a few dollars and losing thousands. Fires cost Ontario Farmers \$943,000.00 last year. "Metallic" would have saved one quarter of this. Do your bit—help cut down the loss.

"Metallic" is not as expensive as you may think. Do not simply compare prices per square. Compare costs laid on the roof. "Metallic" saves lumber and labor and will do the job better. While a small difference there is in the laid-on-the-roof cost. Also consider little more at first, and is far cheaper in the end. Give us your real measurements, and The farmer who has just been burnt out is always our readiest customer for "Metallic".

"Engle" Corrugated Iron. But don't wait till you get burnt out. You may have any building or repairing to do, get our folders and prices to-day on.

"Eastlake" Metallic Shingles.
"Engle" Corrugated Iron.
Metallic Roofing and Face Siding.
Metallic Ceiling and Wall Plates.

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THE METALLIC ROOFING
Co. Limited, Manufacturers Toronto
Ventilators, Escutcheons, Hog
and Stock Troughs, etc., etc.

"Eastlake" Metallic Shingles

179

Farm and Dairy stands foursquare against everything that is detrimental to the farmers' interests, and whatever appears in its columns, either advertising or editorial, is guaranteed reliable.

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Union-Made

Overalls
Shirts & Gloves

Bob Long says:

"My overalls and shirts are the best made, because they are roomy and comfortable. I designed them with the idea that you might want to stretch your arms and legs occasionally."

Insist on "Bob Long" brand. Ask your dealer for Big 11—the big grey overalls—the cloth with the test.

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7



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To get the most out of your
team use

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"Use half as much as any other."

The mica flakes fill the pores
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the grease keeps them there.
Mica Grease means fresher
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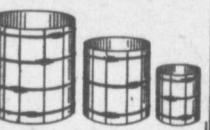
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The 225 Pound Hog is Popular

Why Packers Discriminate Against Heavies

SINCE farmers have been informed of the world's scarcity of fats, and it has been asked to help relieve the shortage through the production of more pork, there has been considerable questioning in regard to the packers' standards for weights of hogs. The weight limit for select hogs throughout Canada is pretty generally 250 lbs., and in the minds of many swine producers the supply of fats would be increased were this standard raised.

At a recent meeting held by the Dominion Live Stock Commission in connection with the new Live Stock Act, at which meeting were gathered certain producers, commission men and packers, this subject came up for discussion. While the packers' standards do not come within the jurisdiction of the act, it was felt that such an opportunity for the discussion of this problem might not often present itself.

One of the delegates gave his opinion that the standard should be raised from 250 to 300 lbs. before hogs were docked in price. He stated that after a hog reaches 250 lbs. it takes comparatively little feed to bring it up to 275 or 300 lbs. He thought that if any type of hog was to be docked in price, it should be the very light hogs, and he pointed out the loss from marketing hogs under 180 lbs.

B. E. Fox, general manager of the Wm. Davis Company, upheld the position of Canadian packers in discriminating against heavy hogs. "Heavy hogs," said Mr. Fox, "were all right when Canada was largely engaged in lumbering and railway construction, when we had a demand for fat pork. The hog market of to-day, however, does not cater to such a trade, but rather to the British market for Wiltshire sides, and for this purpose fat hogs cannot be used. The British Commission, which purchases bacon from New York houses, pays bacon price for Wiltshire sides running 40 to 75 lbs. A 250-lb. hog makes an 80-lb. side, and packers are heavily penalized by the buying commission for fat sides running over 75 lbs."

"I see no early hope of a lowering of standards for select hogs," continued Mr. Fox. "We must take the long view in this matter. Just now we might be able to market a few heavy hogs because other countries are buying from Britain. Canada, however, built up a bacon type, and our present prices have gradually been built up correspondingly higher than those paid to United States shippers, because of our bacon reputation. Shall we allow a temporary market condition to break up the reputation we have already achieved for Wiltshire sides? In my opinion 250 lbs. is the limit for select hogs."

Dr. J. G. Rutherford, of Calgary, stated that Alberta is probably the hardest hit by the 250-lb. maximum. Many of the swine breeders of Alberta are Americans, and have brought with them Durro-Jerseys and other breeds of hogs of the fat type. On all the R. H. Farms, however, Berkshires are bred. Dr. Rutherford believed that it would be a good move if Western packers would offer a bonus for hogs of the bacon type over the heavy American breeds.

Mr. O. W. Waller, general manager of the Swift Canadian Packing Company, stated that the number of hogs marketed in Canada, over 250 lbs., is very small. He believes that the customs change in the market for meat animals. "The 250-lb. hog," said Mr. Waller, "is out of style to-day. Even the American market is demanding a light hog now. Chicago is now paying select prices for hogs that come within the limits of 180 and 225 lbs. A big evolution is taking place in this regard throughout the United States. It is from such light hogs that the breakfast bacon which we get on our markets is made, not from the

250-lb. hog, I believe," concluded Mr. Waller, "that Canadian farmers should market all hogs weighing less than 170 lbs. and none weighing more than 225 lbs., except stags, old brood sows, etc."

Farm Management

Arthur Peas

HIS variety stands to-day among field peas as the earliest in commerce that will give profitable yield. There are earlier field varieties and very early varieties among the garden sorts, but they will not return, when grown for general purposes, a commensurate profit on the labor expended. It has held true, as does the practice in classes of grain, that the advance has been made at a slight sacrifice in yield, but as the Arthur matures some three to ten days in advance of the Golden Vine and Prussian Blue varieties, depending entirely on the district, this slight loss is a negligible factor in the parts of Canada where, if the Arthur variety were to be grown, it would be virtually impossible to grow peas with either satisfaction or profits.

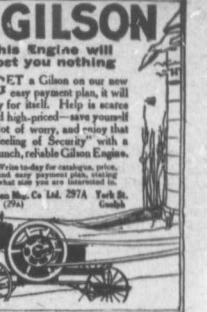
This variety serves its best purpose in the northern districts, within the fifty-first and fifty-fourth parallels in Western Canada and all the northern districts of the eastern provinces extending up to the fifty-first parallel. Small districts lying within the defined territories, subject to both late spring and early fall frosts, may find the Arthur variety too late for their particular conditions. It may be assumed that this variety is only suitable where its early maturity offsets its slightly lower yield. In the eastern provinces, in many cases, it yields equally well with the Golden Vine and Prussian Blue varieties, and, on account of its superior color and quality, frequently commands a higher price on the markets. The Golden Vine and Prussian Blue, however, are, however, old standard sorts, while the high yields, and wherever the grower has had success with either of these, untroubled by the problem of maturity, we would not recommend him to change for the Arthur. In the extreme southern parts of Alberta and Saskatchewan, we would recommend these varieties in preference to the earlier sort.—Experimental Farms Note.

Have the Seed Tested

IT has been estimated that if first class seed were sown on all farms in the crop of the country would be increased by fifty per cent. This cannot be verified definitely, but the annual loss caused by the use of seed other than the best is beyond all doubt surprisingly great.

The present situation, with the world scarcity of cereals and the shortage of farm labor, urgently demands that the best possible selection be made from our 1917 grain crop for seed. This will bring about a great increase in production with a minimum increase in labor requirements. The proper procedure is for each individual farmer to make sure now, that he has pure seed of strong vitality for his spring sowing.

The energy and vitality of seed can be ascertained only by a germination test. More inspection is untrustworthy. Grains of very good weight and excellent appearance are frequently found to have a considerable part killed outright, and the rest so weakened that the young plants are started with too little energy to withstand bad weather, or give a high yield. A poor crop is often said to have been the result of adverse conditions when if strong seed had been



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pay for itself. Help is scarce
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"Feeling of Security" with a
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will mail it if not en
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Tests may be
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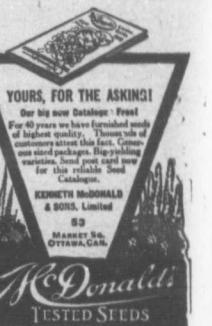
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Perfect Maple Evaporator

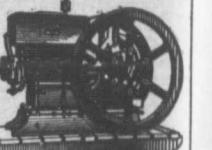
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These engines are the perfected
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perimentation with the result of
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this year and let us do the work for
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We also manufacture a full line
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sown a satisfactory yield would have been secured.

Tests may be made at home, or will be done free of charge, up to 25 in number for one person, at the Seed Laboratory, Ottawa. For home tests seeds and seedlings, and sown in boxes or cans of soil, are kept in a "farm place." For all tests care should be taken to have them thoroughly representative of the bulk lot. When sent to the Seed Laboratory samples should be enclosed in strong manilla envelopes or cotton bags, and where more than one of a certain kind is sent, each should be marked with a distinguishing number. From two to four ounces of grain is sufficient for the germination test. Samples should be addressed to the Seed Commissioner, Department of Agriculture, Ottawa. They are carried free in the mails if not exceeding 12 ounces in weight.

Cooperative Experiments in Weed Eradication

THIS experimental work was commenced in 1916 and has been conducted now for six successive years. The object of this work is to have carried on by men on their own farms experiments in the eradication of weeds, the results of which will furnish data from which definite information may be obtained regarding the best methods of controlling the various troublesome weeds of the Province. Before the results of these experiments began to accumulate there was very little or no definite knowledge concerning the eradication of weeds.

The weeds experimented with are Perennial Sow Thistle, Twitch Grass, Bladder Campion or Cow Bell, Wild Mustard, Ox-eye Daisy, Field Bindweed, and Wild Morning Glory, Wild Oats and Chickweed.

Each spring leaflets are sent out to numerous farmers of the Province inviting all who have any of these troublesome weeds on their farms to cooperate with us in this work and try the experiment outlined for the particular weed which is giving them trouble. Application forms for the experiments accompany the leaflets. Fill them out, fill in these and return them, detailed directions for the carrying out of the experiment selected are sent, and in the fall they are supplied with blank forms on which to report the results of their work.

In the past six years (1913-17) over sixty farmers have cooperated in this work and some valuable information has been obtained. It may be briefly summarized as follows:

1. Thorough cultivation followed by rape sown in drills provides a means of eradication with perennial sow thistle and twitch grass.

2. That rape is a more satisfactory crop to use in the destruction of twitch grass than buckwheat.

3. That thorough, deep cultivation in the fall and spring followed by a well cared for hood crop will destroy bladder campion.

4. That mustard may be prevented from seeding in on the beet and barley by spraying with a 5 per cent. solution of iron sulphate without serious injury to the standing crop or to fresh seedlings of clover.

The following are the experiments outlined for this year:

1. The use of rape in the destruction of perennial sow thistle.

2. The use of intensive cropping and cultivation using winter rye followed by turnip, rape or buckwheat for eradicating perennial sow thistle.

3. The use of rape in the destruction of twitch grass.

4. A method of cultivation for the destruction of twitch grass.

5. Method of cultivation for the eradication of bladder campion or cow bell.

6. Spraying with iron sulphate to destroy mustard in cereal crops.

7. A method of cultivation for the destruction of ox-eye daisy.

8. A method of cultivation and cropping for the suppression of field bindweed or wild morning glory (requires two years).

9. A method of cultivation and cropping for the eradication of wild oats (requires two years to complete).

10. A method of cultivation for the destruction of chess.

All who have any of these weeds on their farm are invited to join with us in this work. By so doing they should be able to clean the field of the weed experiment, with and demonstrate to their own satisfaction the effectiveness of the method tried and at the same time their results will be of great value to others. Full information can be obtained concerning these experiments by writing to

the Director of Cooperative Weed Experiments, Ontario Agricultural College, Guelph.

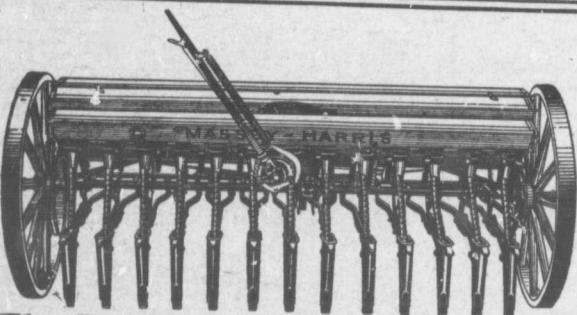
After Effects of Sweet Clover

"ONE of my neighbors has been experimenting considerably with sweet clover," says Mr. Henry Glendinning of Ontario Co., Ont. "I remember particularly well one gravel hillside where he had sown down with sweet clover and got a good crop of hay. Last spring he had oats on that hillside following the sweet clover. I should have mentioned that a portion of the hillside had not been in sweet clover. You could see almost to a drill just where the sweet clover had ended. Its after effects

were a deep green color and a luxuriant growth in the oats that was lacking on the rest of the hillside."

Mr. Glendinning is well known as a strong advocate of alfalfa, of which he has 90 acres on his 300 acre farm in 1918. "I asked my neighbor," said he, "how was the clover and alfalfa compared as farm crops. He told me that anybody who could grow alfalfa need not bother his head about sweet clover."

Most kicking cows are made so during their first lactation period. Be gentle and patient with the heifers, remembering that they are going through a brand new experience which is well calculated to try their patience.



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A GOOD START is half the Battle —sowing your grain with a MASSEY-HARRIS DRILL is a big factor in securing a good start of grain and a bountiful harvest.

Seed Time is approaching—Are YOU ready? Every day counts—delays are dangerous. Don't take chances with an inferior Drill, but get one which can be depended on to sow your grain right. Get a Drill with a reputation for Reliability under all Conditions—It's better to be Safe than Sorry.

The Reliable Force-Feed Runs

uniformly in any desired quantity and without injury to the seed.

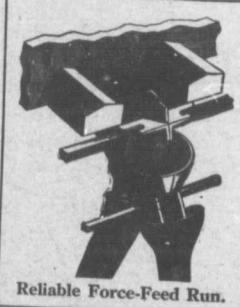
Strong Steel Frame holds all parts in proper relation to ensure free action of all.

Positive Gear Drive.

Simple and easy control—one motion of a Lever lowers the Furrow Openers, applies pressure and starts the feed—the opposite motion raises the Furrow Openers and stops the feed.

MASSEY-HARRIS DRILLS

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Timothy, Clover, Alfalfa and Other Field Seeds

If Your Local Dealer Cannot Furnish This Brand
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HARDY ALFALFA SEED

GRIMM ALFALFA SEED GROWN IN ALBERTA

The hardest known Alfalfa. Practically no danger of winter killing with this seed. Guaranteed pure Grimm. Write for prices and samples

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SUFFIELD, ALTA.

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Superintendent of Farms

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Plant E. D. Smith's Trees

They cost no more than inferior, poorly-grown trees, and they are all inspected by Government Inspectors.

If you are unfamiliar with the best varieties for your section, we will be glad to assist you in your selection, and such assistance places no one under any obligation to purchase. We have nearly 800 acres devoted to Nursery Stock and Orcharding, and can supply first class stock of the following selected and inspected trees:

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CITY MILK SUPPLY

How the New York Dairymen's League Aids the Producers.

In these days when milk producers are endeavoring to obtain more equitable returns for their labor and investments, a description of the New York Dairymen's League form of organization is interesting.

This League is now in its eighth year of operation, having been formed in 1910. It is a joint stock corporation, composed entirely of persons or firms producing milk. In all, there are some 40,000 members, these being dairy farmers located in the States of New York, New Jersey, Pennsylvania, Vermont, Connecticut and Massachusetts, most of whom are shipping milk to New York City, representing about 500,000 cows. The control is vested in a Board of Directors, 24 in number, who are elected annually by the stockholders, and serve for one year. Every stockholder is entitled to one vote, in person or by proxy, for each cow of stock registered in his or her name. The Board of Directors, in turn, chooses annually a President, Vice-president, Secretary and Treasurer.

Sources of Revenue.
The Dairymen's League obtains its revenues in three ways, the first being subscription for stock. Any milk producer desiring to become a stockholder is required to pay the sum of 25¢ per cow for which stock is issued to him, and the rate \$1.50 per cow share; that is, one share for each cow, and for each additional cow one-half share. No stockholder is allowed to sell or transfer his stock to any person without giving the secretary sufficient notice, and the League reserves the right to purchase the stock at par value.

The second source of revenue is obtained from the milk producers, by which the League receives a commission of one cent for each one hundred pounds of milk sold for the milk producers. The contract with the dealers requires them to deduct this commission on all milk purchased from league members and paid to the treasury of the league, the balance of the purchase price going direct to the milk producer.

An emergency source of revenue is obtained by an agreement to the effect that "should the funds in the treasury of the company be insufficient to meet their obligations, the Board of Directors may charge to each member of the company a fee not to exceed 25¢ per cow in any one year."

Objects of the League.
Local branches of the Dairymen's League are organized at various points throughout the rural districts where there is a condensery, creamery or shipping station. Members of these branches make a voluntary sacrifice for the purpose of assisting the direction of the League and facilitate its business. These local branches have the privilege to levy local dues for any local purpose as the branch may decide. The objects of the company are stated in the preamble of the organization, which is as follows:

"The purposes of this company shall be to oppose and prevent monopoly in the production or sale of milk, and to encourage competition therefor, to protect its stockholders and the consumers of milk against monopoly or an unlawful combination of any kind or nature whereby the producers or consumers of milk are injuriously affected, to promote legislation and board of health ordinance beneficially affecting the interests of the stockholders who are producers of milk for the Metropolitan District, and other markets, to act in concert with others in marketing their products and to carry on all such business as its articles of incorporation authorize."

The substance of the agreement between the League and the milk producers is as follows: The milk pro-

"Canada's Greatest Seed House"
PLANT

Steele, Briggs' Seeds

For Sale Everywhere
Send for Catalog
Steele, Briggs Seed Co.
TO TORONTO
HAMILTON - WINNIPEG

SEED GRAINS

We can supply on short notice limited quantities of pure and high quality field grains from the following varieties:

Mixed Barley, Goose Wheat, O. A.C. No. 21 Barley, Bunker King Oats, O.A.C. No. 72 Oats, Silver Hill Barley, Wheat, Centennial Peas, also highgrade grades of Clovers and Timothy.

Ack for our prices on Maize, Turnips, Onions, Potatoes, Beans, Corn and Garden Seeds of all kinds. If need of Feed write us. We can supply Corn, Barley, Meal, Linseed Oil, Corn Meal, Corn Oil, Oats, Meal, Gluten Feed (23% protein), Black Shelled Corn, Cracked Corn, Corn Flakes, Wheat, Barley, Oats, and Screenings, Ground Screenings, Beef and Bone Scrap, Poultry Grit, Oats, Sheep Feed.

We manufacture the well known "Good Luck" brand of Poultry Feed in various sizes and quantity. Try our "Good Luck" Baby Chick Feed. It gives results.

Long distance phone—Day, June 314; Night, June 354.

Write or phone for prices.

CRAMPSEY & KELLY
718 DOVERCOURT RD., Toronto, Ont.



A complete, durable outfit for spramotoring your bicycle and all new spramotors adjusted to suit the width of your rows and the height of the vines.

Spramotor

is the recognized standard of excellence in design, construction, and materials. Made in various styles and sizes. Operated by hand, horse and gasoline power.

Made in Canada. No duty to pay.

Write to-day for FREE illustrated treatise on "Crop Diseases."

HEARD SPRAMOTOR CO.,
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WHITE AND COLUMBIA WYANDOTTES, LIGHT BRAHMAS, S. & WHITE LEGHORNS.

Michael K. Boyer, Box 22, Hammonds, N.H.

duce a great many years to come to all the farms connected except those home, farm and during after for a day's notice either in the same county or adjacent county or manufacturer by the Dairymen's League to do some work of the kind shall be made to emergency the milk manufacturer a place provided local branch. The Dairy and distribution branch best advantage seeds and contracts, this will be done in the same manner.

It is further men's League's position that the one cent for of milk sold under contract, this will be done in the same manner.

either party of the contract shall bring and the sum of five dollars the number producer has agreed upon and the same shall be tendered a price.

A contract Dairymen's League's agent and the effect agrees to sell a

agreed upon, a take and pay day during the contract, all those members League from time in has not previously been sold by the dealer, all milk sold shall be of good inspection and ties of the State municipality to be

T HE Spramotor is situated in a position contaminated by an earth closet. Where there is no use of a cesspool and an approach thereto is thereby rendered well water, it is an earth closet, satisfactory, better than the present on farms and in containing it should be substantial, well



tiated, with a gable plastered on less exposure to

dices agrees to consign for a term of years to the Dairymen's League for sale all the milk produced on the farms controlled by the milk producer, except such milk as is required for home, farm or local consumption, and during the term stated, and then after for six-month periods, unless 30 days' notice is given in writing by either party before the expiration of any contract period. Furthermore, the milk producer agrees to deliver the milk, pure and uncontaminated, in condition for sale suitable to New York or adjacent markets, to the packing station, condensery or such other manufacturing plants as are designated by the Dairymen's League, or if the Dairymen's League should be unable to dispose of the milk during any portion of said period, the milk producer shall be so compensated, and in such an emergency it shall be optional with the milk producer, whether they manufacture their milk at home or at a place provided and operated by the local branch.

The Dairymen's League agrees to sell and dispose of said milk to the best advantage and to remit the proceeds due to the milk producers, less the commission.

It is further agreed that the Dairymen's League shall receive a commission from the proceeds of the sale of one cent for each one hundred pounds of milk sold during the time of the contract, this to be deducted from the proceeds of sale.

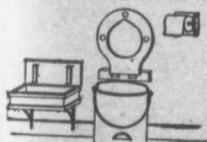
It is mutually agreed that in case either party fails in the performance of the contract, the two parts so failing shall and will pay to the other the sum of five dollars (\$5.00) per cow for the number of cows which the milk producer has taken stock, which sum is fixed and agreed upon as the liquidated damage for such failure, and that the same shall in no event be considered a penalty.

Agreement With Dealers.

A contract is also made between the Dairymen's League, Incorporated, as agent for the milk producers, and the dealers. This is to the effect that the League agrees to sell and deliver at the place agreed upon, and the dealer agrees to take and pay for as provided, each day during the period covered by the contract, all the milk produced by those members of the Dairymen's League from whom the dealer has been in the habit of receiving milk, if not previously paid, and such additional quantity of milk as may be required by the dealer. It is understood that all milk sold under this agreement shall be of good quality and must pass inspection and approval of the authorities of the State of New York and the municipality covered by the dealer.

A Sanitary Privy

THE cesspool is an abomination if situated near the well or in such a position that the well may be contaminated from it. The average outhouse on the farm is still worse. Where there is difficulty in the matter of ultimate disposal without the use of a cesspool, and the consequent and apparently unavoidable risk thereby incurred of contaminating the well water, it would be better to use an earth closet. This is not wholly satisfactory, but is safer and far better than the provision so often found on farms and in villages. The house containing it should be well built and substantial, well lighted and ven-



tilated, with a good roof, and preferably plastered on the inside to insure less exposure in cold weather. A

carefully-made and dry walk, screened by lattice for protection from the wind and for privacy.

The excreta should be received in a galvanized-iron pail, not too large, and made to fit close under the seat. This is to be like that of an ordinary water-closet. Each time the closet is used, dry earth is added. The pail should be emptied frequently. With proper attention, this closet need not be, and should not be, removed from the house. It would even be possible to place it in a room built against the house, the room having one door opening from the house and another opening out of doors. This would make it possible to enter from the house in inclement weather, and also to carry out the pail without pass-

ing through the house. The room should be well ventilated by a window close to the ceiling, and only tissue paper should be used. (See fig. for sketch below.)

The earth for use in these places is to be found in nearly every field and garden, and should be of rather a loamy nature if possible, and porous. A very sandy soil is next to useless. Large heaps of earth should be collected for the year's use and dried in the summer sun. It is not necessary to use perfectly dry earth, but it is

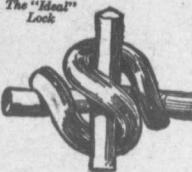
Don't worry about what the other fellow says of your farming methods. It is results in the fall that count.

Pleased With Farm and Dairy

PLEASE find enclosed \$2 for renewal to Farm and Dairy for three years. I could not afford to do without it. Go on with your good work. I enjoy the good common sense of Farm and Dairy and particularly appreciated Mr. Halbert's address published recently.—Walter McLean.

One of the great weaknesses of the small farm is that too large a proportion of the land is buried unproductively in buildings and machinery.—A. Leitch, O. A. C., Guelph, Ont.

The "Ideal" Lock



"Ideal" Fence Prices

Freight Paid to Your Station

Below we give the freight-paid prices to any station in Old Ontario (except electric) on only a few of the many styles of "Ideal" Fence. The "Ideal" Catalogue and Freight Paid Price List—sent free on request, a postal will bring it to you—shows and describes fully, and gives prices, a freight paid to your station on—

25 Styles Heavy "Ideal" Fence

Made throughout of full gauge No. 9, evenly galvanized Hard Steel Wire, from a 4-wire fence 33 inches high to a 15-wire, 57-inch fence. A style for every purpose.

12 Styles Medium Heavy "Ideal" Fence

Made with No. 9 gauge wire for top and bottom, all other wires No. 12 gauge.

2 Styles "Ideal" Poultry Fence—Made with No. 9 gauge wire for top and bottom, all other wires No. 18 gauge. All Size Farm and Stock Gates—with improved features found on "Ideal" gates only. **6 Styles "Ideal" Lawn Fence and Gates. Brace Wire, Barb Wire Coiled Wire, Stretchers, Steel Posts, Diggers, etc.**

Send today for "Ideal" catalog with Freight-Paid Prices

No. 7400 HORSE AND CATTLE FENCE
7-line wires, 40 inches high, stays
22 inches apart. Spacing 5, 6, 6, 7, 7^½, 8^½.
Made throughout of full gauge No. 9,
evenly galvanized hard steel wire.
Price, per rod **50c**

No. 7480 HORSE AND CATTLE FENCE
7-line wires, 40 inches high, stays
22 inches apart. Spacing 5, 6, 7^½, 9, 10, 10.
Made throughout of full gauge No. 9,
evenly galvanized hard steel wire.
Price, per rod **51c**

No. 831 HOG FENCE
8-line wires, 21 inches high, stays
16^½ inches apart. Spacing 3, 3, 3, 4, 5, 6, 7.
Made throughout of full gauge No. 9,
evenly galvanized hard steel wire.
Price, per rod **60c**

No. 1048 GENERAL STOCK FENCE
10-line wires, 48 inches high, stays
16^½ inches apart. Spacing 3, 3, 3^½, 4, 6, 6, 7.
5, 8^½. Made throughout of full gauge
No. 9, evenly galvanized hard steel
wire. Price, per rod **75c**

No. 1150 GENERAL STOCK FENCE
11-line wires, 50 inches high,
stays 18 inches apart. Made with top
and bottom wires. No. 9 gauge, all other
wires No. 12. Price per rod **55c**

25-lb. bundle No. 9 galvanized brace wire	\$1.60
25-lb. box (any size) galvanized fence	1.85
4-point galvanized barb wire per 50-rod spool	5.50
"Ideal" stock gate, 14 feet long x 61 inches high. Each	6.50
"Ideal" farm gate, (close mesh) 12 feet x 48 inches. Each	7.00

OUR GUARANTEE

"Ideal" fence is guaranteed to be made exactly as represented, to be made as the best fence should be made and to give you THAT VALUE you expected to receive when ordering.

We have a large stock of all styles of "Ideal" fence on hand and will ship all orders the same day as received, while stock lasts.

The McGregor Banwell Fence Co., Limited

Walkerville, Ont.



A FORTUNE IN POULTRY

Increase your egg yield by purchasing a
Choice Cock or Cockerel
of our high record
Egg Laying Leghorns or Red a.
1918 Mating List contains
50 photos of
the best breeding. Feed
and tonic formulas
Our 254 Egg Kind

L. R. Guild, Box 76, Rockwood, Ont.

Bred-to-Lay Leghorns

My breeding pen, as pullets, averaged 174 eggs, and this under general farm conditions. Cock birds from the same stock specially selected for winter egg production. List your orders now. Eggs are held at 60° F., 15.5 per setting of 15, at our station. Cash with order or C.O.D.

F. E. Ellis, Campbellville, Ont.

Egg Producing Hen Feed Green Ground Bones

\$5.00 per 100 lbs. Express order or Post Office Orders, Order

GEORGE STEVENS
364 Mark Street, Peterborough, Ont.



Keeping Eggs for Hatching

EGGS for hatching keep best in a temperature of about 50 degrees F. and they should be turned every day. Eggs that are to be shipped should be well packed and should be left in a cool place at least 24 hours before being placed in hens or in the incubator. It is not desirable to keep eggs for hatching more than 10 days, but good hatcheries may be secured from three week old eggs if kept at 50 degrees and turned every day. Experiments show that the longer the eggs are kept the less the percentage of chicks secured. In cold weather gather the eggs before becoming chilled.—E. J. Peterson.

How to Set a Hen

THE first sign of a hen being broody (wanting to set) is that she stays longer on the nest when laying, and on being approached will quite likely remain and make a clucking noise, ruffle her feathers and peck at the intruder. When it is noted that a hen sets on a nest from two to three nights in succession and that the feathers are disappearing from her breast, which should feel

hot to the hand, she is ready to be transferred for setting to a nest which has previously been prepared. The nest should be removed, out-of-the-way, place where the setting hen will not be disturbed. Move her from the regular laying nest at night and handle her carefully in doing so. Put a china egg or two in the nest where she is to set and place a board over the opening so that she can not get off.

Toward the evening of the second day quietly go in where she is setting, leave some feed and water, remove the board over the front of the nest and let the hen come out when she is ready. Should she return to the nest after feeding, remove the China egg or eggs and put under those that are to be incubated. If the nests are slightly darkened the hens are less likely to become restless.

At hatching time they should be confined and not be disturbed until the hatch is completed, unless they become restless, when it may be best to remove the chicks that are hatched first. In cool weather it is best not to put more than 10 eggs under a hen, while later in the spring one can put 12 or 15, according to the size of the hen.

Dust the hen thoroughly with insect powder, and in applying the powder hold the hen by the feet, the head down, working the powder well into the feathers, giving special attention to regions around the vent and under the wings. The powder should also be sprinkled in the nest.—U.S.D.A.

Saving Money by Spending.

SAVING money by continuing to use an inferior machine is like "saving at the spigot and wasting at the bung." For instance, if your machine skims down to .1 per cent. for every thousand pounds of milk skimmed, compare that result with the splendid, proven record of the Renfrew. You find by having the

Renfrew

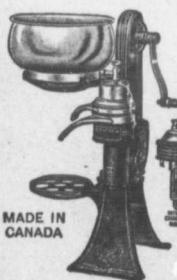
that you will save about $\frac{1}{2}$ pound of butter-fat per week for every cow. The Renfrew skims down to .01 per cent. That loss of $\frac{1}{2}$ pound means money! With eight cows, and butter-fat at say 30 cents per pound, you would be losing every year (40 weeks' milking) the tidy sum of \$48.

This sum saved is accepted by us as a first payment on a Renfrew. The saving soon pays for the machine—and then the \$48 per year for eight cows becomes extra profit.

Will it not pay you to discard the old machine for the Renfrew? It gets all but the last three ounces of butter-fat in a whole ton of milk skimmed. If you could reckon the losses the old machine made the last few years, wouldn't it decide you right away to get the close-skimming Renfrew?

Our illustrated booklet gives interesting proofs of the Renfrew's close skimming, including tests by Government Dairy Schools. It also explains the Renfrew's self-oiling system, the interchangeable capacity feature, easy-to-clean advantages, etc. Send for booklet to-day.

Other Lines: Renfrew Kerosene Engine, Happy Farmer Tractors, Farmers' 2000 lb. Truck Scale.



MADE IN
CANADA

The Renfrew Machinery Co., Limited

Head Office and Works: Renfrew, Ontario
Eastern Branch: Sussex, N.B. U.S.A. Branch: Milwaukee, Wis.
Agencies almost everywhere in Canada



NOTICE.—The Renfrew Separator illustrated here was formerly sold under the name "Standard," which was a name of a high efficiency cream separator. The name "Renfrew" has been used on the same machine for many years for our United States and foreign trade and under that name has become well known. It is now sold under the name "Standard" in Canada. Now the name "Renfrew" is registered in Canada and so as to link the name more closely with that of our company and so that it may be used uniformly under a uniform name throughout the world.

12

Nitrate of Soda

Data as to increased crop yields due to the use of Nitrate are available. Why not make your business of crop fertilizing profitable by the use of Nitrate of Soda whose efficiency is known?

A bushel of corn or wheat or a bale of cotton today will buy more Nitrate and more Acid Phosphate than ever before.

Send for "Increased Crop Yields from the use of Nitrate of Soda"

Dr. WM. S. MYERS, Director
Chilean Nitrate Committee
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GILSON TRACTOR



THE STANDARDIZED TRACTOR

—is a business machine designed along sound mechanical lines of proven worth, with no break features. 150 H.P. engine. Write for free catalogue and rock bottom prices.
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GUELPH, CAN. 37



TORONTO SILOS EXTRA CAPACITY

THE Toronto Hip Roof adds several tons capacity to this silo, because you can turn the carriage right up to the top of the walls.

This is one of the many money making advantages of Toronto Silos. Write for the book to-day.—Address:

ONTARIO WIND ENGINE & PUMP CO., LIMITED 131

Atlantic Ave., Toronto,
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Winnipeg, Calgary, Regina



ALL CLASSES ARE LIABLE UNDER THE DOMINION WAR TAX ACT

Returns covering 1917 details must be filed on or before 31st March next.

THE Income War Tax Act applies to every class of person residing or ordinarily resident in Canada.

Every unmarried person, or widow or widower without dependent children, whose income exceeded \$1500 for the calendar year, 1917, and all other persons whose income exceeded \$3000 for the same period, must fill in and file the necessary forms.

All persons engaged in farming of any kind, who are liable under the provisions of the Act, must get three copies of Form T-1 and answer in detail all questions asked. Special attention is called to the following points as well as to those specifically mentioned in the Form.

Gross Income Must Include all income from the sale of produce, stock, or other products whatsoever, as well as monies received from other sources, such as Dividends, Interest, etc., as provided in the Forms.

Personal and Living Expenses must not be deducted in determining gross income—the figures must include the value of all food and other necessities of his own production, consumed by the taxpayer or his family.

Depreciation.—In giving figures under Depreciation, particulars of the value of implements, machinery, and outbuildings on hand January 1st, 1917, upon which depreciation is claimed should be shown, but must not include any amount for dwelling occupied by the taxpayer.

The amount expended for labor in the preparation of land for crops and in the cultivation, harvesting, and marketing of the crop should be stated, as well as the cost of seed and fertilizer and the amount expended for labor in caring for live stock, cost of feed, repairs to farm buildings, but not the cost of repairs to dwelling. The cost of small tools and material which is used up in the course of a year or two, such as binder twine, pitch forks, spades, etc., should be shown as these are deductible.

The cost of labor may include board of hired men, but no amount as wages for the taxpayer himself will be allowed.

Penalties.—Default in filing returns renders the person or persons liable on summary conviction to a penalty of one hundred dollars for each day during which the default continues. Any person making a false statement in any return or in any information required by the Minister of Finance shall be liable on summary conviction to a penalty not exceeding ten thousand dollars or to six months imprisonment, or to both fine and imprisonment.

Don't forget to fill in three copies of the Form. Keep one copy and file the other two with the Inspector of Taxation for your District.

Forms may be obtained from the District Inspectors of Taxation and from the Postmasters at all leading centres.

Postage must be paid on all letters and documents forwarded by mail to Inspector of Taxation.

*Department of Finance,
Ottawa, Canada.*

INSPECTORS OF TAXATION

For Ottawa and District, K. Fellowes, Cor. Bank St. and Laurier Ave., Ottawa, Ont.; For Kingston and District, G. A. MacDonald, Kingston, Ont.; For Toronto and District, Hugh D. Patterson, 59 Victoria St., Toronto, Ont.; For Hamilton and District, George G. Lowe, Customs Bldg., Hamilton, Ont.; For London and District, George R. Tambling, London, Ont.

Why Pub-

By

THE fact that "camping" cret has few objec-tions to public, especially large enough, to the sacred greater rela-know anything that most con-funds" are given or less as bribe to purchase sp-are colli-considerable conclusion their aim or if have been dis-fact, bribe to se-cution in the able under-taking statement, but confirmed by re-how certain specia-privileges public tions to the "par-whole situation tounding found-among those co-but one result.

The Step-

Now, what sh- first thing to do and overcom-ing this im-Without this im-thing further ca-with it the next e-easy. The next s-and means, and legislative remedied that such legisla-tor or that it will

If you're
CREAM S-

Let us

"Sanita-

Six sizes—150 lbs. and 200 lbs. cap-DE-CHARABLE SPLASH GUARANTEE to the cheese. It is easy to turn a price very low, money back guarantee. If satisfied, copy mailed free.

King Separ-**Of C-
BRIDGEBU****\$950 Down S-
120-Acre Equ**

Owner left soon includes, 1 year-olds, 4 years wagons, harness, mire, rakes, hay, etc., etc. S pasture, valuable orchard, 500 sup with buckets and house, 16-cow barn, try house, \$3,450 easy terms. Direc page 16, "Strout's Dept. F. E. A. STROUT 150 Nassau St., N.Y.



\$2.21 Per GUARANTEED
Bu. WHEAT



Oats, Barley, Flax, Live Stock GREAT OPPORTUNITIES

IMMENSE WEALTH IN WESTERN CANADA

SEND FOR FREE BOOK: "Homeseekers' and Settlers' Guide"

LOW FARES

100,000 FREE FARMS

OF 160 ACRES EACH. Government lands along the Canadian Northern surveyed and ready for crop growing. There is a share in the three-quarter dollar for crop growing, which is paid to farmers this Fall. Estimated crop value of Wheat, Oats, Barley and Flax, \$1,000,000.00 per 160 acres. Manitoba, Saskatchewan and Alberta is \$413,683,700.00.

IMPROVED LANDS FROM \$15 UP PER ACRE ALONG CANADIAN NORTHERN. Rich, well located farms, close to railroads, and products can be purchased on easy terms, or cash and crop payment. Many fine opportunities and convenient transportation. Act now—get away this spring.

Tractors and Farm Implements

Easily available—new Government assistance plan. Capital or no capital—the work, the opportunity, is there, and the Canadian Northern offers the way. Write to-day for the new "Guide to Homeseekers and Settlers," published by the Canadian Northern R.R. Agent, or General Passenger Dept., Montreal, Que., Toronto, Ont., or Winnipeg, Man.

Ramsay's Fine Floor Paint—

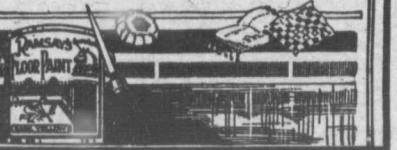
is made to be walked upon, that is the floor Paint you want. It is time tried for severe usage. There's a Ramsay dealer in your town; consult him, or write us for booklet.

A. RAMSAY & SON COMPANY

Makers of Paint and Varnishes since 1842

TORONTO MONTREAL VANCOUVER

Established 1842



Hundreds of Dollars In Actual Profit"

More than one farmer has told us—since he has got a copy of "What the Farmer Can Do With Concrete," that the advice it gave him netted him hundreds of dollars in actual profit.

Get the book—it's free—and by reading it you will see the profit there is in building improvements of CONCRETE according to its plain, simple directions. For instance, there's a page devoted to Watering Troughs—showing how to build the sanitary kind that will not rot, rust or leak. Several pages devoted to Concrete Silos. Others telling how to build concrete foundations for barns. All these are improvements a farm needs—it's value will go up considerably if you use concrete in the building of them. And you'll be able to "work" your farm with less effort and on a more profitable basis if your buildings and utilities are of the modern Concrete type. This book gives all the directions you'll need.

Remember—Concrete improvements are fire-proof, rot-proof, vermin-proof and indestructible. The book also contains interesting photographs showing what other Canadian farmers have accomplished; with working plans revealing how they did it. Perhaps you are specially interested in some of the features listed in our coupon. Put a cross opposite the ones about which you want particular information.

Specify what you want information about →	
FLOORS	DAIRY HOUSES
CONCRETE BLOCKS *	BARNS
SILOS	FENCE POSTS
GARAGES	ROOT CELLARS
TRoughs and TANKS	ROADS

"What the Farmer can do with concrete"

Canada Cement Company Limited 216 Herald Bldg., Montreal



Figure the Time Waste Involved in avoiding the bad road. Whether driving or motoring, you can save time and fuel by using concrete quicker than over a one-mile section of old-style road.

Permanence ofways

of Concrete will enable us to greatly reduce the cost of hauling farm produce. All our costs of labor and time will be speeded up and economized by reducing the time, fuel, and tire-wear roads with roads of concrete. You can Concrete on your farm, to reduce the time and money spent because Concrete is a permanent "repair." For the same reason, because concrete is a durable material—it is just as effective in reducing road up-keep costs as in effecting economy on the Farm.

Fibre Cheese Boxes

J. A. Ruddick, Dairy Commissioner, EVERAL thousand cheese were shipped last year in the new fibre boxes. In order to get accurate and unbiased reports as to the condition of these boxes on arrival in the United Kingdom I arranged with the Cheese Commission to notify my office at Ottawa when cheese in fibre boxes were imported in any shipment, and the cargo inspected. Under my direction at ports in the United Kingdom were instructed to be on the lookout for them and to make special reports as to their condition, and to obtain the views of the trade regarding them. These reports do not indicate that this package is a perfect one as manufactured at present. The covers are frequently torn loose and there is a tendency for the fibre to soften slightly, presumably by absorbing moisture from the cheese. When this occurs the box is liable to be crushed when it has to stand the weight of a pile of five or six boxes.

Quite a percentage of the boxes were reported as torn with the hooks used in handling. They will not stand that sort of usage. The patent cheese truck as used for wooden boxes also breaks or tears the fibre band, but this can be, and has been in some warehouses, remedied by an alteration in the truck which prevents the tearing. As I have already said, the fibre box is probably not a perfect box, but I think it is capable of improvement, and even at present it would appear as though it arrives in good condition, if not better, on the average, than the ordinary wooden box.

I am rather hopeful that the fibre box, possibly with some improvements, will solve the box problem of the future, providing the cheese are all made of one diameter. In many cases the fibre boxes were too large for the cheese and the percentage of damaged boxes was much greater in such cases. This lack of management which results in cheese being shipped from the factories in boxes which are either too large in diameter or too long in length is inexcusable and it is coming to be recognized every day as a more serious defect. It is considered sufficient cause to reduce the grade of the cheese half. When there is a loss of one-half a cent a pound, or 43 cents per box, on account of these defects—that is, by fitting boxes in one respect or another—surely it is time to provide a remedy. If a cheesemaker has the ordering of the boxes it would be a much more reasonable charge to charge him with any loss arising out of such a defect as it is to charge him for inferior quality in the cheese itself.

When Writing Mention Farm & Dairy

Why Publish Campaign Funds

By W. C. Good.

THIS fact that contributions to "campaign funds" are kept secret has a sinister significance. Few object to having their contributions for patriotic purposes made public, especially if the contributions are large enough. But the larger the gifts to the sacred cause of "party" the greater the reluctance to let the public know anything about it. The fact is that most contributions to "campaign funds" are given and received more or less as bribes. They are intended to purchase special exemptions from some obligations or special privileges or considerations, and it is a reasonable conclusion that they accomplish their aim or the whole scheme have been discontinued. They are in fact, bribes to secure safety from prosecution in the carrying on of questionable undertakings. This is a strong statement, but it has been abundantly confirmed by recent exposures, showing how certain parties bought the special privilege of stealing from the public treasury by some contributions to the "party funds." In fact, the whole situation betrays the most astounding looseness of public morals among those concerned, and can have but one result.

The Steps to be Taken.

Now, what should be done? The first thing to do is to create a definite and overpowering public sentiment against the present practice of secrecy. Without this imperative demand nothing further can be done. Then comes with it the next step is comparatively easy. The next step is to devise ways and means, and to suggest definite legislative remedies. No one pretends that such legislation can be made perfect or that it will be wholly effective.

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AND
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Peterboro and Toronto.

47

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Swaps and exchanges of circulation of the paper, showing its distribution by counties and provinces, will be mailed free on request.

OUR GUARANTEE.

We guarantee that every advertiser in this issue is reliable. We are able to do this because in the advertising columns of Farm and Dairy and here are as carefully edited as the news columns, and hence we are not compelled to turn away all sorts of unscrupulous advertisers. Should any advertiser herein deal dishonestly with you or one of our paid-in-advance subscribers, we will get the amount due you. This transaction occurs within one month from date of this issue, that it is reported to us within a week of its occurrence, and we are free to do so. We also guarantee the cancellation of this contract that in writing to advertisers you state "I saw your advertisement in Farm and Dairy."

Please note that we do not charge extra to some of our subscribers who are our friends, through the medium of these columns; but we shall not attempt to adjust trifling disputes between subscribers and advertisers, nor shall we advertise, nor pay the debts of honest bankrupts.

The Rural Publishing Company, Ltd.
PETERBORO AND TORONTO

"Read not to contradict and to confute, nor to believe and take for granted, but to weigh and consider."—Bacon.

Daylight Saving

ANOTHER effort is to be made to thrust daylight saving upon us. Last year a so-called daylight saving bill was introduced in the House at Ottawa, but received practically no support. It will be introduced again this year and a vigorous campaign in its favor is being waged by the city press. From the city standpoint we are prepared to concede that the idea has its good points. Folks will find it easier to get up at six o'clock if their timepieces register seven. Likewise it will be easier to go to bed at ten o'clock when the timepiece is registering eleven. It means, for city folks, a longer evening of daylight and more time for outside recreation. It is an admirable and elaborate scheme, whereby some four millions of Canada's city dwellers hope to decide themselves into getting up early.

But how does it look from the farm viewpoint. We believe that the agricultural section of the Hamilton Board of Trade spoke for one hundred per cent. of the farmers of the land when it placed itself on record as being absolutely opposed to such legislation. For the farmer, a daylight saving bill would be a daylight wasting bill. In seed time the land is frequently frozen at six o'clock—seven o'clock by the proposed new time—while the soil is in admirable condition for working between five and six—six and seven by the new time. It is the same in harvest. The best part of the working day is late in the afternoon while the early morning hours cannot be spared for field work.

It has been suggested that farmers can disregard the measure even if it does pass. The farmer knows better. He is an employer of labor and this year even more than other years a large proportion of his help will be from the cities and composed of men who are accustomed to working by the clock. And when the factory whistle blows in the neighboring town there will be trouble if the farm hand must keep on working for another hour. When going to town to transact business too, the farm routine will be affected by the changed hours of business in the

city with consequent loss in productive efficiency.

Daylight saving will be a small convenience to the city dweller. It will be a severe blow to the productive efficiency of the farmer and his help. Whose interests are to be considered as of most importance by our legislatures? Their action in connection with the daylight saving measure will indicate to which section of the community they choose to cater. If the majority of Canadian farmers would drop a card to their member telling him just what they think of this so-called daylight saving, the bill will meet with the fate it deserves.

The Railway Rates Increase

A S announced in the daily press last week, the Dominion Cabinet has officially ratified the Railway Commission's order, granting a fifteen per cent. increase in freight and passenger rates to all Canadian companies, pending "further study" of the permanent solution of the "huge and complex" railway problem. The new rates become effective immediately and go out of operation one year after the conclusion of peace. Further amendments to the original order of the Board of Railway Commissioners, provide for special taxation of the Canadian Pacific Railway Company, which will bring back into the federal treasury the increased revenue that this company will derive as a result of the rate increases. In order to insure a correct accounting and to prevent any hide-away of revenues on the part of this company, the Government is providing for a thorough audit, and also for supervision of all expenditures on capital account.

These amendments to the original order will afford at least some consolation to the farmers organizations of Canada which alone presented a united front against railway rate increases when they were first proposed. Had it not been for the determined opposition of the organized farmers the order would, in all probability, have gone into effect months ago and that without any date set for its termination and no provision for diverting into the public treasury the extra and unnecessary revenues of the C.P.R. In this one instance alone our organizations have saved for the people of Canada many millions of dollars and have performed a public service of no mean importance. We will await with interest the results of the Cabinet's search for a "permanent solution" of this admittedly great and difficult problem. If they follow the expressed desires of almost all of the great democratic organizations in Canada, their solution will be along the lines of Nationalization of all Canadian railroads.

Canadian Cow Still Leads

A "Canadian Press Despatch" from Sacramento, California, which obtained wide circulation in Canadian newspapers last week, reads as follows:

"A world's record production of 918.6 pounds of milk was made in the seven days ended last night by Raphaela Johanna Aagie III, a registered Holstein, owned by the Napa State Hospital. The best previous record was 902.1 "pounds of milk in seven days, made by River-side Sadie DeKol Burke, owned in Woodland, California."

Wrong! Good as both of these records are—and it takes a good cow to make records such as these—neither of them can compare with that of the Canadian cow, May Echo Sylvia. In seven days, this great Canadian cow made 1,095.8 lbs. of milk, or almost one hundred pounds more than the average of her two nearest rivals. This production was attained in her seven-year-old form. As a six-year-old, May Echo Sylvia is credited with 879 pounds of milk in seven days, and as an eight-year-old with 952.2 pounds of milk. The average of her three consecutive records is, therefore, 912.3 pounds of milk or only 6.3 pounds short of the California record, a showing which places May Echo in a class by herself as a milk producer. We trust the Canadian press, in justice to Mr. Hardy and Canadian Holstein interests generally, will correct the mistake for which they are responsible.

The Federal Income Tax

UNDERR authority of the Dominion War Tax Act, the Dominion Finance Minister announces a new measure of direct federal taxation. The call upon the fortunes of the people of Canada is to take the form of a graduated tax on all incomes of \$1,500 and over enjoyed by all unmarried persons, or widows and widowers without dependent children, and of \$5,000 and over, enjoyed by all other persons, as well as by all corporations and joint stock companies. There will be a tax of four per cent on all incomes above the amount exempted and an additional tax on all incomes greater than \$6,000 varying from two to twenty-five per cent, according to the size of the income.

As announced on page 12 of this issue of Farm and Dairy, all farmers whose incomes were greater in 1917 than the amounts specified will be required to fill in and file forms with the District Inspectors of Taxation. In computing his gross income a farmer must include all revenues collected from the sale of farm produce of any kind whatsoever, interest on investments outside the farm and the value of all good and other necessities of his own production consumed by the taxpayer or his family. In computing the net or taxable income all monies expended in running the farm will be deducted from the gross income; this will include such items as the cost of hired labor, seed, fertilizer, feed purchased and small tools. An important item that the taxayer should not overlook is a proper allowance for depreciation on buildings, (except the dwelling house), and implements; business concerns usually place this at ten per cent. Rent for the use of land or interests on mortgages are, of course, deductible also. We advise Our Folks to read carefully the announcement on page 12 and, if liable, to file their forms with the District Inspectors as required.

Test Seed Corn

EARLY in the season, before the Dominion Government placed an embargo on the seed corn of South Western Ontario, a Kent county corn grower sold \$500 worth of seed to a farmers' club in an Eastern county. A month later the grower returned the money with the statement that as his corn had showed a germination test of less than forty per cent, he did not feel justified in delivering it. This same grower at the corn show at Chatham informed us that some of the finest looking corn on exhibition had germinated only sixteen per cent. Another grower estimated that much of the seed corn planted in the south western counties would germinate about forty per cent. Through the northern part of the United States, where Canadian ensilage growers go each year for a portion of their seed supply, conditions are similar to those prevailing in our own corn counties. In a few districts the seed corn is good, but over ninety per cent. of the corn area, practically all corn gathered for seed was injured by early frosts.

The seed which has been procured for the silage growers of Canada by the Dominion Government will come almost altogether from the Southern States. This corn will show a higher germination test than seed from the Northern States or Ontario, but even with it, however, we cannot afford to be too sure of ourselves. Should we happen on a fifty per cent. sample and then plant the regular amount of seed per acre, we would have only half a crop of corn. The safe policy this year will be to test every ear, if we are fortunate enough to get seed corn on the ear, and reject all ears that do not germinate four kernels out of six. If the corn is shelled, which practically all of it will be, take a representative sample for a germination test and plant in proportion. If we find that our seed corn germinates only fifty per cent instead of the usual ninety per cent, and we have been accustomed to seed at the rate of thirty pounds to the acre, then we can be assured of a full stand only by seeding at the rate of forty-five pounds to the acre this year. The man who takes a chance on the seed corn having the usual germinating power is risking crop failure this year more surely than ever before.

Letters

CHINESE EDITOR, Far East, headed the question, "Does a man want China to say that they are a real farmer for the money spent in Canada? Of my 640 acres are productive, because of conditions. Age is much to improve the wages you can obtain. An hour's labor a day is a life and such like to borrow money to live is the case with me. How to go on a government favor?"

If Chinese labor will give good service I think farmers could get them indefinitely, because of the beauty of Canada. Many Chinese are willing, they can milk cows, make butter, etc., which few can do.

As to "lowering," teaching Sun of Chinese in Winton made me think the

ADVERTISING

THIS talk is with the breeder of horses. It is a well-known fact though excellent stock is produced records are thought to be though able to talk about any subject, and particularly about the stock answering letters.

the lack of time. Within 24 hours of sending a letter, a response is also that the farmer has got out of practice, has got out of practice that, though able to speak, he just naturally makes mistakes, all, salesmanship is now with everyone. Then there is the way which others—to advertise sharp, persuasive advertising offers come to sell seed—descriptions and ads—which sell well as these, correspondingly many can be stated in the 24 hours, the person who has to do is to accept the goods.

In the case of the handle extensive correspondence entirely different. His business is to have a large quantity of stock, and may be changed frequently in suits. However, in the desire to have to have for weeks and months nothing for sale, nothing for more, after an ad, appears to be a few a few "typical" reader "Well, it's just right." Then even when a brings a sample for sale his response is

It is to avoid this. Dairy enables breeders to have stock and raising them to market in a year—often when they sell and are too busy quite often, and not wish for extensive contact, get the most from their stock when their special to offer something when their offering keep your ad, fresh and simple, and guaranteed, uninsured, and guaranteed, unless there is nothing to sell. It is quite effective. When compared with business Farm and Dairy.

C. G. McKELLIVRAY
Live Stock Department, F.



YOU and I are making that mysterious, solemn thing we call character, moment by moment.—Alexander McLaren.

The Heart of the Desert

(Continued from last week.)

KUT-LE'S eyes deepened. He turned and picked up his rifle.

"Bring your friend back to dinner, Achise," he said. "Our little holdout must end right here."

They reached the camp at noon and while the squaws made ready for breaking camp, Rhoda sat deep in thought. Before her were the burning sky and desert, with hawk and buzzard streaking the clear blue. Where had the old hatred gone? Kut-le's Whence came this new trust and understanding, this thrill at his touch? Kut-le, who had been watching her adoringly, rose and came to her side. The rampart hid the two from the others. Kut-le took one of Rhoda's hands in his firm fingers and laid his lips against her palm. Rhoda flushed and drew her hand away. But Kut-le again put his hand beneath her clef chin and lifted her face to his.

Just as the brown face all but touched hers a voice sounded from behind the rampart:

"Hello, you! Where's Kut-le?"

CHAPTER XV.

An Escape.

Rhoda sprang away from Kut-le and they both ran to the other side of the rampart. Billy Porter, worn and fatigued but still looking very well able to hold his own, stood staring into the cave where the squaws eyed him open-mouthed and Achise, his hand on his rifle, scowled at him aggressively. Porter's eye fell on Injin Tom.

"U-huh! You pison Plate, you! I just nacherally snagged your little gun, didn't I?"

"Billy!" cried Rhoda. "O Billy Porter!"

Porter jumped as if at a blow. Rhoda stood against the rock in her boyish clothes, her beautiful braid sweeping her shoulder, her face vivid.

"My God! Miss Rhoda!" cried Billy hoarsely, as he ran toward her with outstretched hands. "Why, you are well! What's happened to you?"

Here Kut-le stepped between the two.

"Hello, Mr. Porter," he said.

Billy stepped back and a look of loathing and anger took the place of the joy that had been in his eyes before. "You Apache devil!" he growled. "You ain't as smart as you thought you were!"

Rhoda ran forward and would have taken Porter's hand but Kut-le restrained her with his hand on her shoulder.

"Where did you come from, Billy?" cried Rhoda. "Where are the others?"

Billy's face cleared a little at the sound of the girl's voice.

"They are right handy, Miss Rhoda."

"I'll give you a few details, Rhoda," said Kut-le coolly. "You see he is without water and his mouth is black with thirst. He started to trail Injin Tom but got lost and stumbled on us." Rhoda gave a little cry of pity and

running into the cave she brought Billy a brimming cup of water.

"Is that true, Billy?" she asked. "Are the others near here?"

Billy nodded then drained the cup and held it out for more.

"They are just around the corner!" with a glance at Kut-le, who smiled skeptically.

"Oh!" exclaimed Rhoda. "What terrible trouble have I made you all?"

"You made me," said Porter. "Well that's good! Still the Apache devils don't seem to have heard of it. Just the same, he'll get his! If I shot him now, the other Injins would get me and God knows what would happen to you!"

"Whom do you call an Apache devil?" asked Kut-le. Rhoda never had seen him show such evident anger.

"You, by Judas!" replied Porter, looking into the young Indian's eyes.

For a strained moment the two eyed each other, hatred glaring at hatred, until Rhoda put a hand on Kut-le's arm. His face cleared at once.

"So that's my reputation now, is it?" he said lightly.

"That's your reputation!" sneered Billy. "Do you think that's all? Why, don't you realize that you can't live in your own country again? Don't you know that the whites will hunt you out like you was a rat? Don't you realize that the folks that believed in you and was fond of you has had to give up their faith in you? Don't you understand that you've lost all your white friends? But I suppose."

"That's what you think?" said Kut-le. "Say," said Billy, scowling, "you've got a nerve, cutting in as if this was a parlor conversation you had cut in on casual. Just keep out of this, will you!"

Rhoda flushed.

"Well, as long as he can hear everything, it's a good deal of a farce not to let him talk," she said.

"Farce!" exclaimed Billy. "Say, Miss Rhoda, you ain't stucking up for this Indian. Please are you?"

Rhoda looked at the calm eyes of the Indian, at the clean-cut intelligence of his face, and she resented Porter's words. She answered him softly but clearly.

"Kut-le did an awful and unforgivable thing in stealing me. No one knows that better than I do. But he has treated me with respect and he has given me back my health. I thank him for that and—*I do respect him.*"

Kut-le's eyes flashed with a deep light but he said nothing. Porter stared at the girl with his dropped.

"Good Lord!" he cried. "Respect him! Wouldn't that come and get you? Do you reason that you want to stay with that Injin?"

A look of sadness passed over Kut-le's face.

"Porter," he said very gently, "I counted on all of that before I did this thing. I thought that the sacrifice was worth while, and I still think so. I'm sorry, for your sake, that you stumbled on us here. We are going

to start on the trail shortly and I must send you out to be lost again. I'll let Achise help you in the job. As you say, I have sacrificed everything else in life; I can't afford to let anything spoil this now. You can rest for an hour. Eat and drink and fill your canteen. Take a good pack of meat and tortillas. You are welcome to it all."

The Indian spoke with such dignity, with such tragic sincerity, that Porter gave him a look of surprise and Rhoda felt hot tears in her eyes. Kut-le turned to the girl.

"You can see that I can't let you talk alone with Porter, but go ahead and say anything you want to in my hearing. Molly, you bring the white man some dinner and fix him some trail grub. Hurry up, now!"

He seated himself on the rampart and lit a cigarette. Porter sat down cross-legged, with his back against the rampart wall. He was discomfited. Kut-le had succeeded perfectly as to the circumstances of his finding the camp. He had no idea where his friend might have gone in the twenty-four hours since he had left them. When he stumbled on to Kut-le he had a sudden hope that the Indian might take him captive. The Indian's quiet reception of him non-perturbed him and roused his unwilling admiration.

Rhoda sat down beside Porter.

"How is John?" she asked.

"He is pretty good. He has lasted better than I thought he would."

"And Katherine and Jack?" Rhoda's voice trembled as she uttered the names. It was only with the utmost difficulty that she spoke coherently. All her nerves were on the alert for some unexpected action on the part of either Billy or the Indians.

"Jack's all right," said Billy. "We ain't seen Mrs. Jack since the day after you was took, but she's all to the good, of course, except she's been about crazy about you, like the rest of us."

"Oh, you poor, poor people!" moaned Rhoda.

Porter essayed a smile with his cracked lips.

"But, say, you do look elegant, Miss Rhoda. You ain't the same girl!"

Rhoda blushed through her tan.

"I forgot these," she said; "I've worn them so long."

"I ain't the clothes," said Billy. "And it ain't altogether your fine health, either. You don't know what it is! It's like the desert."

"That's what I tell her," said Kut-le.

"Say," said Billy, scowling, "you've got a nerve, cutting in as if this was a parlor conversation you had cut in on casual. Just keep out of this, will you!"

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Kut-le grinned.

"Maybe Miss Tuttle will fix up something for you, so you can eat without worrying."

"Well, she won't, you know! She ain't no squaw!"

"Oh, but," cried Rhoda, "you don't know how proud I am of my skill! I can run the camp just as well as the squaws." Then, as Porter scowled at



Ready for Action on the "Firing" Line.

These boys are evidently ready to commence operations on the wood pile. The snap was taken on the farm of Mr. and Mrs. Webster, Victoria, Ont. The boy with the rifle is Master Webster, and the one with the saw is a town boy, who was "doing his bit" on the farm last summer, and enjoys it too.

Kut-le, "He didn't make me! I wanted to, so as to be able to take care of myself when I escaped. When you and I get away from him," she looked at the silent Indian with an expression of daring that brought a glint of amusement to his eyes. "I'll be able to live off the trail better than you!" "Get!" exclaimed Porter admiringly.

"Of course, in one way it's no credit to me at all," Rhoda went on, stirring the rabbit stew she was warming up. "Kut-le—" she paused. Of what use was it to try to explain what Kut-le had done for her?

She toasted fresh tortillas and poured the steaming dish to Porter. He tasted of the mess tentatively.

"Oh, Hen!" he exclaimed, and he set upon the dish as if half starved, while Rhoda watched him complacently.

Seems him apparently thus encouraged. Instantly Porter dropped the revolver and fired two rapid shots, one catching Achise in the leg, the other Injin Tom. Before he could get Kut-le the young Indian was upon him.

"Run, Rhoda, run!" yelled Porter, as he went down, under Kut-le.

Rhoda gave one glance at Injin Tom and Achise writhing with their wounds, at Porter's fingers tightening at Kut-le's throat, then she seized the canteen she had filled for Porter and started madly down the trail. The screaming squaws was no need to hear.

She ran swiftly, surely, down the rocky way, watching the trail with secondary sense, for every other was strained to catch the sounds from above. But she heard nothing but the screams of the squaws. The trail

(Continued on page 21.)



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March 21, 1918.

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FARM AND DAIRY

The Upward Look

Before and Now

"It is good for me that I have been afflicted that I might learn . . . They statutes." Ps. 119: 71.

She was the gayest and gladdest of the frivolous set of her college year. She was selfish, too. Never did it seem to occur to her to sacrifice herself for anyone else. Then the love of one of the noblest of the young men, also of her class, came into her life. Intending to become a missionary, he felt his nation's need first and went overseas. Then came the war, and he that he had been wounded and there was no hope. She at once set sail, but reached him three hours too late.

Now I see her often, one of the sweetest, most serious, self-sacrificing and cheerful of girls, for she is really grey. Grey is her favorite color with touches of pink. Now she is particularly bright for in any of Christ's work that requires especial tact and understanding.

When you look into her face and eyes, you see the suffering, the patience, the hope and the joy. For life to her now holds far more than ever imagined in those days before the greatest of joys and the greatest sorrows were hers. She was always beautiful, but never then as she has now. Most of joy could never have given to her countenance the strength, the depth, the pathos, the trust and the joy that she now has.

Can you think of a truly noble and great-souled person who has never been to the school of suffering? For the other hand, think of those who live merely to Christ and most for others. Has not sorrow been their portion as well as joy? Because our Heavenly Father also sends joy as well as the sorrow, which purifies and sanctifies and brings us very close to humanity and humanity's Christ.—T. H. N.

Items of Interest on Alberta Institutes

MRS. JEAN MULDREW, of the Controller's Office, told the delegates at the Women's Institute Convention, Toronto, something of the work of Women's Institutes in the West and particularly in Alberta, as her home is in Edmonton. In speaking of the school question in that province she said:

"I know some of the difficulties the teachers have to put up with and I know the effort the teachers make to overcome them. But they cannot do everything themselves. The solution is to put women on our school boards. In this connection I would advise the women of the East not to put our women on their school board. This mistake was made in one of our Western centres, with the result that she was swamped. Put in two women and keep them by them. Whenever any question on schools comes up in the West, we from the East have a tendency to tell them how well things are done in Ontario. Ontario has the best educational system. It is not so, however, to think that the Ontario system is perfect. It is a good thing to have a divine discontent."

"Out in the West we borrow ideas from the United States and they do likewise from us. One idea we borrowed from them was that home and school should be one and that there should be no distinct stage. Neither should the child be allowed to think that school life is beautiful and school life drudgery. The system which we have worked out is called 'School Credit for Home Work.' The teacher makes a bargain with the parents to keep track of the hours of work done by the child at home and marks are given by the parents for this work in a book kept for the purpose. The child is therefore taught that work at

home helps to build up character as well as work at school."

"The first Women's Institutes in Alberta were organized in 1913, and there are now from 180 to 200 branches with an enrollment of 8,000. Since Women's Institutes were organized we have also organized another women's association, the United Farm Women's Association, which came into existence in 1915. The difference between these organizations is that the latter deals largely with practical questions. After the franchise was given the women in Alberta in this organization went forward by leaps and bounds. Already Alberta has two women members of parliament.

"We are asking for better roads, good schools and medical inspection in the West. We are trying to overcome the menace of the mentally defective and must have a large building which will cost \$100,000. We will get it, too, though I don't know how."

The Spirit of Unselfishness

Mrs. Walter Pariby, Alix, Alta. SINCE the great war began we have been busy cheering one another with the thought that the world can never be the same when at last the struggle shall cease. People of platitude, how mighty hard it has been worked, and even yet it is not dead. What are we doing, you and I, to ensure that this stale platitude shall never be living truth?

Who are we to say that war shall cease, the world be cured by the quack medicine of a glorious internationalism? Today the world is bleeding to death in its efforts to create a false ideal of nations "in," but the only true internationalism, the only true internationalism, is a spirit of mutual sympathy and understanding among all the people—other words, the spirit of unselfishness which is the essence of the thing we call co-operation. Until we can bring about the birth of that new spirit among the nations, until we can grow it in our own homes, our own communities, our own Dominion, as well cry out to the tides to cease their flowing, as well try to stop the stars in their course as bid war to cease. Here is work for every individual woman of us, every group of organized women, work for the making of which you may never be bringing perhaps a little nearer that time when there shall be a new heaven and a new earth.—Extract from an address.

Watering of Plants

THE PERSON who is successful with house plants realizes that considerable importance is laid on the watering of the plants, as they may be as greatly injured by too much water as by too little. Plants should not be watered except when they require it and then the watering should be thorough. It is sometimes difficult to keep plants in good condition when they have to go without water for a few days. Some people fill the flower pot saucers full water. This is a very good plan, but it is better still to place the pot on two matches laid in the bottom of the saucer which is filled with water. The pot, thus lifted from the bottom of the saucer, gets a certain amount of air otherwise cut off from it.

To tell when a plant needs watering, try this method: Knock the side of the pot sharply with your knuckles. If the resulting sound is dull you may be sure that the soil has water in it. But if the sound is hollow, then you know that the soil is dry.

When possible, place the potted plants in a pan of water. The water should not rise over, of course, to the top of the pot. Now the water passes through the drainage hole to the soil. When the top surface of the soil is wet, remove the pots from the receptacle. Whatever method of water-

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ing you apply let it be a thorough one.

The fern ball and hanging baskets are hard things to water. This suggestion may help. Take a small can, make a pin hole opening in the bottom, and fill the can with water. Place it in the midst of the foliage in the top of the hanging basket or fern ball. The water slowly and constantly drips out of the hole in the can. If the foliage is dense, the can may be quite hidden from view.

COOK'S CORNER

The Potato, A Good Friend

DESPITE the increase in price since the war, potatoes are still one of the best of foods. One pound of roast beef costs 19 times as much as a pound of potatoes, and 20 per cent. of beef is bone. Three and a third pounds of potatoes supply 1,690 calories of energy, at a cost of less than 10 cents, while about 2,500 calories are required for full grown persons working indoors. That is to say, if all foods were as cheap as potatoes we could live on 25 cents a day. Healthy men have lived and worked for months on a diet of nothing else than potatoes, butter, and bacon. Potatoes are a good protein of the very best kind. They also contain mineral salts which neutralize harmful acids in the body. The food material in potatoes is 98 per cent. digestible.

Canadians have large supplies of potatoes, carrots, onions and turnips and by consuming these vegetables freely, they can economize with bread. More than 300 ways of cooking potatoes are known. They combine well with many flavors. They can be used to accomplish advances with meat and fish, in soups, croquettes, hash, chowders, meat pies, etc. One half a cup of mashed potatoes and two cups of flour make a bread mixture that helps the flour go farther.

Good cooks know the ways of using potatoes are various—boiled, steamed, lyonnaised, baked, chipped, fried, hashed brown, creamed, scalloped, stuffed, au gratin, and scores of combinations.

Canada has plenty of potatoes and, although the price is high compared to normal times, it is not high in comparison with other foods in war time.

Finishing Touches for Breakfast

NOTHING seems to fill the bill so nicely for breakfast in many of our homes as porridge and toast. They are easily prepared and something which we do not tire of easily. To really add a finishing touch to breakfast, however, we need fruit of some kind to eat with toast and it is sometimes difficult to vary this part of the meal. The best way to supply the house with fresh fruit is to have it made up, either as jam or marmalade, as either one is very palatable for breakfast. Jam or marmalade is also acceptable. Nowadays when we are urged so strongly to save sugar it is a good idea to make use of fruits for marmalade which will supply the sugar themselves. Here are several recipes which do not call for any sugar. If too tart, a small portion of sugar might be added, although it is claimed that they will be found sweet enough if directions are followed as given here:

Aple-Raisin Marmalade.

To one cup ground seeded raisins add one cup chopped apples and one cup water. Cook until thickened. A little orange and lemon juice and grated rind may be added if liked.

Date-Prune Jam.

Wash one pound prunes, soak over

night; cook in same water and remove stones. Remove stones from one pound dates and cut in small pieces. Cook with prunes until mixture is thick. Add small amount of lemon juice.

Prune-Apricot Butter.

Wash one pound prunes and one-half pound apricots; soak over night; stew until very soft in same water; rub through colander. Return to sauce pan and cook slowly until thick like apple butter, being careful that it does not burn. Do not add sugar.

Cooked dried fruit such as apricots, pears, raisins or prunes may be used in combination with ground raisins also in any proportion desired and three fruits such as apricots, apples and raisins may also be combined.

Catsup added to some of these marmalades makes a small fruit relish to serve with cold meat.

A jam which does not require any sugar is made by stoning two pounds of dates and putting them into a preserving pan with one and a half pints of water, one ounce preserved ginger and one pint lemon juice. Simmer for half and hour. (Lemon juice and rind may be added if liked.) This makes four and a half pounds of delicious, nutritious and cheap jam.

Other Folks' Clothes

With the Household Editor.

WHO in our childhood days wore clothes which had been made over from an old dress of mother's which was out of style, or probably a suit of father's which was too badly worn for further use by him. Mother would rip them up, clean and press the material and by and by we would have a dress or probably a coat which would look "almost as good as new."

It is still a common practice for children in the home to wear "other folks' clothes," and it is a practice which no mother needs object to, especially in these days of thrift. How many children there are, however, who object most strenuously to wearing clothes which are not absolutely new. Why is this? We believe the difficulty lies due to the fact that these clothes have not been made to measure, becoming to the children.

An absolute essential in making over clothes for the kiddies is to see that they are attractive and becoming. For instance, a new bit of lace or ribbon added to the costume will make a wonderful difference in the appearance. At other times instead of using one material for the whole dress, two pieces of good material, a piece of blue chenille and a piece of checkered material such as gingham would make up very nicely. We should make a special point too of having these made-over clothes fit very neatly, as this improves the appearance to a large extent. If clothes of the older children are cut down for the younger ones, special attention should be given to having the skirt just the right length for the waist line properly adjusted. A nice touch, such as a fresh rose, will transform such a dress and please the wearer.

None of us should scorn the idea of making over cast-off clothing for the children, especially in wartime, but we should be very careful in seeing that such clothes present an attractive appearance. Just one more suggestion: Make it a point to get each child a new dress or some new article of clothing occasionally. It will please them greatly, for children are quite as fond of new clothes as are the grownups. By doing this we will not often hear some such remark as "I just hate wearing other folks' clothes."

"I have never met," he said, "more than two really lovely women."

"Ah!" she said, looking up insistently into his face, "who was the other?"

(Continued)
Twisted violent.
She sped about
tress, then stopped
on her heavy coat.

A man was riding
of the trail. The
girl seemed
him. With the
drooping hair, her
red face, the pained
throat and the eyes
closed by the
one button missed
the beautiful buckskins.
E. buckskins, E.
time to come up
John DeWitt had
garn face went
shoulders heaved
"John! Dean!
Ridder put her
stretched, shaking
"Rhoda! Sweet!
DeWitt gasped.
him.

CHAP
Adrift in
Rhoda put her
stretched, shaking
"Rhoda! Sweet!
DeWitt gasped.
him.

For an instant
in his hearing chest.
had a feeling it
denied had stopped
it was only for
paused. Her face
exclamation.

"Come!" she ex
"Take my arm
carry you?" exclam
"Huh!" sniffling
keep up with me,

DeWitt, despite
stopped and stared
mouthed. Then a
super health she
line of face and b
"You are well,
Rhoda, I never tho
wants."

Rhoda squealed
"I am so strong
Hurry!"

"Where are the
DeWitt, running
"What were those
"Billy Porter foun
shot Alchide and
Kutdele were w
Then Rhoda he
ought to go back an
Dad pulled her
"Leave you until
Why, Billy! Hurry
me if I thought of
over there, a three
Witt pointed to
we swing around to
dians won't see us."

Hand in hand the
swinging trot. The
pursuit was on them
merged their first jo
left them panic-stricken
minutes they ran with
hat, well well out
heat of the desert, the
they no longer g
rapid walk. Still
the pursuit.

"Was Porter hurt?"
"Not when I left."

"I wonder what his
John. "He left the
to trail Injun Tom. V
him as quick as we
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Rhoda looked up at

"You are very ti
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"And you!" cried t
down at the girl with
tremendous stride. "Wh
come to see me?"

"I never dreamt th
be health like this!"
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FARM AND DAIRY

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The Heart of the Desert

(Continued from page 18.)

twisted violently near the desert floor. She sped about one last jutting buttress, then stopped abruptly, one hand on her heaving breast.

A man was running toward the foot of the trail. He, too, stopped abruptly. The girl seemed a marvel of beauty to him. With the curly hair beneath the drooping "Ku-tee," the tanned, flushed face, the parted scarlet lips, the same fair skin that she had last seen at the Newman ranch. John had the look of a man who has passed through the fire of tragedy. She gripped his burned fingers with both her slender hands.

"O John! Dear John, DeWitt!" cried Rhoda. "Turn back with me quick! I am running away while Mr. Porter holds Ku-tee!"

DeWitt held out his shaking hands to her, unbelieving rapture growing in his eyes.

CHAPTER XVI.

Adrift in the Desert.

Rhoda put her hands into the outstretched, shaking palms.

"Rhoda! Sweetheart! Sweetheart!" DeWitt gasped. Then his voice failed him.

For an instant Rhoda leaned against his heaving chest. She felt as if after months of living in a dream she suddenly had stepped back into life. But it was only for the instant that she paused. Her face was blazing with excitement.

"Come!" she cried. "Come!"

"Take my arm! Or had I better carry you?" exclaimed DeWitt.

"Huh!" sniffed Rhoda. "Just try to keep up with me, that's all!"

DeWitt, despite the need for haste, stopped and stared at the girl, open-mouthed. Then as he realized what superb health she showed in every line of face and body, he cried:

"You are well! You are well! O Rhoda! I never thought to see you this way!"

Rhoda squeezed his fingers joyfully. "I am so strong! Hurry, John! Hurry!"

"Where are the Indians?" panted DeWitt, running along beside her. "What were those shots?"

"Billy Porter found our camp. He shot Alchise and Injun Tom and he and Ku-tee were wrestling as I ran." Then Rhoda hesitated. "Perhaps you ought to go back and help Billy!"

DeWitt pulled her ahead. "Leave you until I get you to safety; why, Billy himself would half murder me if I thought of it! Our camp is over there, a three hours' trip." DeWitt pointed to a distant peak. "If we swing around to the left, the Indians won't see us!"

Hand in hand the two settled to a swinging trot. The dreadful fear of pursuit was on them both. It submerged their first joy of meeting, and left them panic-stricken. For many minutes they ran without speaking. At last, when well out into the burning heat of the desert, they could keep up no longer and dropped to a rapid walk. Still there came no sound of pursuit.

"Was Porter hurt?" panted John. "Not when I left," answered Rhoda. "I wonder what his plan is?" said John. "He left the camp yesterday to trail Injun Tom. We'll go back for him as quick as I can get you to camp."

Rhoda looked up at DeWitt anxiously.

"You are very tired and worn, John," she said.

"And you!" cried the man, looking down at the girl with the swinging, tireless stride. "What miracle has come to you?"

"I never dreamed that there could be health like this! —" She stopped, with head to one side. "Do you bear anything? What do you suppose:

they are doing to each other? Oh, I hope neither of them will get killed!"

"I hope — They have all promised to let me deal with Ku-tee!" said DeWitt grimly, pausing to listen intently. But no sound came across the burning sands.

Rhoda started at DeWitt's words. Suddenly her early sense of the appalling nature of her experience returned to her. She looked with new eyes at DeWitt's face. It was not the same face that she had last seen at the Newman ranch. John had the look of a man who has passed through the fire of tragedy. She gripped his burned fingers with both her slender hands.

"O John!" she cried, "I wasn't worth it! Let's get to the camp quickly, so that you can rest! It would take a lifetime of devotion to make up for that look in your face!"

John's quiet manner left him.

"It was a devilish thing for him to do!" he said fiercely. "Heaven help

him when I get him!" Then before Rhoda could speak he smiled grimly.

"This pace is fearful. If you kept it up you will have a sunstroke, Rhoda. And at that, you're standing it better than I am!"

They slowed their pace. DeWitt was breathing hard as the burning lava dust bit into his throat.

"I haven't minded the physical discomfort," he went on, "it's the mental torture that's been torturing me. We've pushed hot on your trail hour after hour, day in and day out. When they made me rest, I could only lie and listen to you sob for help until — O my love! My love!"

His voice broke and Rhoda laid her chin against his arm for a moment. "I know! O John dear, I know!" she whispered.

They trudged on in silence for a time, both listening for the sound of pursuit. Then DeWitt spoke, as if he forced himself to ask for an answer that he dreaded.

"Rhoda, did they torture you much?"

"No! There was no torture except that of fearful hardships. At first you know how weak and sick I was, John; at first I just lived in an agony of fear — sort of nightmare of exhaustion and frenzy. Then at Chira I began to get strong and as my health came, the weaker I became —oh, I can't put it into words! Ku-tee was —" Rhoda paused, wondering at the reluctance with which she spoke the young Indian's name. "You missed us so narrowly so many times!"

"The Indian had the devil's own luck and we always blundered," said DeWitt. "I have had the feeling lately that my bones would be bleaching on the banks of Hades before you ever were heard of. Rhoda, if I can get you safely to New York again I'll shoot the first man who says 'desert to me!'"

(Continued next week.)



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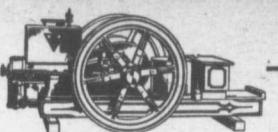
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Distributors for Manitoba



The Makers' Corner

Butter and Cheese Makers are invited to send contributions to this department, to ask questions on matters relating to cheese making, and to suggest subjects for discussion.

New Plan for Cow Testing

THE Dairy Record Centres, of which 35 have been in operation in Canada, are to be abandoned. The D.R.C. has proposed to enlisted the services of cheesemakers and buttermakers or other qualified persons to do the testing at the rate of 10 cents per test, the milk testers to provide their own equipment. This remuneration we believe will be sufficient to induce many cheesemakers and buttermakers to get their patrons interested in the work of keeping herd records.

The cheese factories and creameries are natural centres for herd record work. The samples are conveniently collected on the milk or cream wagons and it is always easy to communicate with members who are patrons of a cheese factory or a creamery. An increase in the production of the herds in the district means not only greater returns to the farmers themselves, but a larger output for the creamery or cheese factory, thus ensuring a larger revenue for those who are dependent on it. In many localities an experienced man could do very good work by devoting his whole time to the business of testing milk, while at almost any cheese factory or creamery the wages of one assistant could easily be earned.

In order to carry on herd record work in any district under the new arrangement, it will only be necessary for the farmers to cooperate with some qualified milk tester by weighing and sampling each cow's milk night and morning, on three days every month, and by delivering the samples at the appointed place of testing.

The Department of Agriculture, through the Dairy and Cold Storage Commissioner's Branch, will:

(a) employ a supervisor in each province;

(b) pay 10 cents per test for all Babcock tests made and recorded on the sheet sent to Ottawa;

(c) make the necessary calculations and send every farmer a monthly statement of the milk and fat produced by each cow in the herd, also send each farmer a total production at the end of the season; and

(d) supply blank forms for recording weights and tests of milk, preservative tablets for the composite samples and sulphuric acid for testing. The routine as far as the farmers are concerned will be the same under the new plan as it has been heretofore and the same forms will be used.

How the Province Stands

THE following table shows the number of cheese handled by the Cheese Commission from June 1 to December 31, 1917, by provinces, with the percentage of different grades in each case.

Table I.—Classification of Cheeses.
Grades
(Percentages).

Province of	Bushels.	No. 1.	No. 2.	No. 3.
Ontario ...	1,087,569	92.39	.43	.38
Quebec	756,330	70.88	27.13	1.99
P.E.I.	17,483	90.85	9.00	.15
	1,861,237	84.22	14.85	.93

The standards on which the classification was made are practically the same as those which have been observed in the trade for many years. Roughly speaking grade No. 1 may be described as including all cheese of good commercial value, well boxed, and having no objectionable flavors. Cheese were considered No. 2 grade

CULTIVATE

For Greater Production

The better the cultivation, the better the growth.

Men right around you found the benefit of first-class cultivation last year. In the construction of the Peter Hamilton Cultivator, every need has been considered and every requirement provided for. The different groups of three rows of tines are adjustable, and the front teeth are attached to one tooth-frame, back row to another. All teeth cultivate to an even depth and thoroughly work up every inch of ground. The

PETER HAMILTON Cultivator

is a light draft implement, in spite of its superior strength. Teeth are strongly reinforced and will stand all the hard work they will get. Sections are made from extra heavy steel. See the Peter Hamilton Cultivator before buying.

Agents wanted
in open territory

The Peter Hamilton Co., Ltd.
PETERBOROUGH, ONT.



CURDALAC AND SPONGY PEPSIN

(STANDARDIZED)

The First and Original Peptic Coagulant.

It is an experiment.

Time-tried and demonstrated success in the manufacture of Canadian cheeses.

START-O-LAC

(LACTIC-ACID CULTURE)

A pure culture of selected and tested lactic-acid-producing bacteria for ripening milk and cream, and improving the quality and flavor of cheese, cottage cheese, butter and buttermilk.

GERMTOX

(NOT A POISON)

A scientifically prepared Germicide, Disinfectant and Deodorant.

The ideal sterilizer for all dairy utensils.

The above products are sold by all dealers in dairy equipment.

Write to us for descriptive booklets and any other desired information.

PARKE, DAVIS & CO.

WALKERVILLE, ONT.

MONTRÉAL, QUE.

Mention Farm & Dairy
When Writing

If there were off flavor, fruit acid, too many gassy, cracked, flinty or too many stones in the soil to place the crops. The 3 grade corns were badly off rancid, or very any cheese was No. 2 grade on degree.

The quantities of different districts are standing the matter of great interest.

Table II.—Ontario

District. Barrie, Western Ontario, 61,000 bushels; Northern Ontario, 1,000,000 bushels; Eastern Ontario, 7,000,000 bushels; in subdivision.

"Western Ontario" territory west of Sudbury.

"Northern Ontario," Sudbury, 1,000,000 bushels.

"Central Ontario," 1,000,000 bushels.

"Eastern Ontario," Frontenac and Hastings, 1,000,000 bushels.

The action of setting out in setting out between the prices of the various grades allows the monetary loss suffered from poor cheese.

2 the patrons receive less for their milk.

No. 1, and 10 cents.

cheese.

Greater Pro-

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A great product
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Second Street, Oakville, Ont. Constructed with "Tarvia-X" in 1915.

How Good Roads Reduce the Cost of Living---

GOOD roads are like oil in machinery; they reduce friction, resist wear. Without good roads a community rusts—sticks—stagnates.

With good roads, the wheels of industry spin and produce.

Good roads multiply the earning power and value of remote farms. They bring a new flood of produce to the freight-station. They increase the community's buying power and make for prosperity.

Bad roads add to the cost of every ton that drags its weary way over them, while good roads set the farm-wagon, automobile and motor-truck rolling smoothly to market.

Government statistics prove

that the people of backward countries often waste, in a few years, in excessive hauling costs, money enough to build a big system of modern roads.

Made in Canada
Tarvia
Preserves Roads Prevents Dust-

Built and maintained with Tarvia, modern roads are made automobile-proof, frost-proof and durable.

The cost of year-round Tarvia Roads are less costly than any other form of good-road construction.

They are a delight to owners of horse-drawn vehicles and motor-fraction.

A system of Tarvia Roads in your community will not only increase its prosperity and reduce the high cost of living. We have booklets about Tarvia which we would be glad to send you if you are interested.

The **Barrett** Company
LIMITED

MONTREAL TORONTO WINNIPEG VANCOUVER
ST. JOHN, N. B. HALIFAX, N.S. SYDNEY, N.S.

PEERLESS PERFECTION

For the Big Ranch, or the small farm, put up a fence that will last a lifetime, that does not serve only as a mere boundary line, but one that gives real fence service—one that is built strong enough to withstand the onslaught of stock as well as the ravages of all kinds of weather.

PEERLESS Perfection is one of the easiest fences to erect, because it stays "put". It can be erected over the most hilly and uneven ground without buckling, snapping or breaking, or run through streams without tension.

Every intersection is secured with the famous Peerless lock.

Animals can't break through if no man can break it.

It simply cannot be broken.

Just springs back in shape like a bed spring.

It's made of heavy-gauge steel galvanized wire, with all the corners taken out, and all the strength and toughness left in. Will not corrode or rust. Top and bottom wires are held in place by a unique device which holds them firmly in place. Requires less space than ordinary soft wire fence. Absolutely guaranteed.

Send for Literature and address a secret agent in your state or province who will also mail you a complete line of poultry and ornamental fencing. Agents nearly everywhere in the United States and Canada.

The **Bassell-Bixie Wire Fence Co., Ltd.**,
WINNIPEG, MAN. HAMILTON, ONT.

Direct Tax on Farmers

DESPATCH from Ottawa to the Toronto Globe forecasts direct federal taxes on the farming industry. It reads as follows:

"Plans for the taking of an agricultural census, which the Government contemplates in cooperation with the Provincial Departments of Agriculture, apparently have ultimately in view some measure of direct taxation on the farming community. So far all farmers are practically exempt from war taxation on incomes or other forms of direct Federal taxation. But, with the imperative need of increased revenues to meet the burdens of the war and its aftermath, the Government realizes that increased direct taxation falling on everything must come. As yet there is no adequate or detailed information concerning the financial condition of the farmer, his income, his assets or wealth. This secure this and as a basis on which to determine any further measure of direct taxation as suggested, the agricultural census is to be made. It will be in the form of questionnaires sent out to each farmer asking for data as to his revenues and expenditures, the value of his land, stock, buildings, etc., the net return on his investment after allowing a reasonable amount for the labor of himself and family. The information tending to show as accurately as possible the financial status and yearly income of each farmer."

"Details as to the method and time of taking the census are still to be settled, but it is probable it will be made in connection with the coming national registration next June."

Elsewhere in this issue of Farm and Dairy, farmers are requested to fill in forms to be provided, in connection with the new federal income tax order. If this despatch in the Globe be correct, still further direct taxation must be contemplated.

Items of Interest

Mr. P. P. Woodbridge, secretary-treasurer of the United Farmers of Alberta for nearly seven years, has, on account of ill health, been forced to give up his arduous task. His plans for the future are still indefinite, but his present intention is for a time at least to return to an outdoor life and in all probability for the immediate future he will reside in British Columbia.

Prizes of \$30, \$20, \$10, \$7 and \$5 are being awarded in each of four districts in Ontario by the Ontario Vegetable Growers' Association for the best gardens of three acres or more. An entry fee of one dollar is being charged which may be forwarded along with the application to the secretary of the association, Mr. J. Lockie Wilson, Toronto.

Not 25 per cent. of the available maple trees in Canada are being tapped. Statistics show that out of 55,000 farmers in Eastern Canada who produce maple sugar and syrup at all, only very few tap more than a quarter of the trees they have available on their farms. This 25 per cent. production is worth \$1,500,000 annually. This amount might easily be doubled. One man can take care of boiling the sap from 5,000 trees as easily as from 500.

Canadian fertilizer manufacturers have united in establishing a Soil and Crop Improvement Bureau with headquarters in the Temple Building, Toronto. This is a purely educational bureau, whose purpose it will be to disseminate reliable information on crop production and the use of fertilizers. The work is under the direction of Henry J. Bell, who has been in charge of similar work in the United States, formerly Professor of Agronomy at the University of Maine and Assistant Professor of Farm Crops at the Iowa State College. Prof. Bell is a native of Ontario and a graduate of the Ontario Agricultural College. "How to Increase Ontario

Niagara Soluble Sulphur

San Jose Scale, Oyster Shell, Pepper Mite, Flea, Leaf Curl, Apple Rootworm, and many other pests are easily and effectively controlled with Soluble Sulphur than Lime Sulphur.

Thousands of farmers in Canada and the United States have proven by actual use that Soluble Sulphur is a quick-acting insecticide combined with Calcium Arsenate. It makes the best insecticide.

Cotts Less Than Lime Sulphur

Soluble Sulphur saves many dollars per acre on the season's spray. A 500-pound bag of Soluble Sulphur is equivalent to a barrel of Lime Sulphur; making more spray, says freight on the latter. *No leakage—no loss.*

THE NIAGARA SPRAY GUN should be part of every spraying outfit. It makes the job more thoroughly.

Niagara Brand Spray Co. Limited
Burlington, Ont. 600 lbs. Lime Sulphur

FOR SALE AND WANT ADVERTISING

THREE CENTS A WORD, CASH WITH ORDER

WANTED—Co.-Assistant for Rockport Cheese Factory, for season, one with or without experience. Apply stating wages, Wm. Landon, Rockport, Ont.

WANTED—A cheese factory to manage for 1918, with supplies furnished; cheese making, creamery, etc.; also a whey butter maker; 20 seasons' experience. Hold certificate. Bert Coulter, 9 Crowley street, Kingston.

FOR SALE—Private, Barber, Cedar, Spruce, Pine, Oaks, Chestnut, Walnut, Maple, 100 ft. high, 10 ft. diameter, mailing size. Prepared. Dozen same variety, one dollar; five dollars flat rate, John Downham, Stratford, Ont.

FOR SALE—O. A. C. No. 72 Oats at \$1.25 per bus.; O. A. C. No. 21 Barley at \$1.75 per bus. Foregoing from registered owner. Apply to J. H. MISNER, Jarvis, Ontario.

DAIRY CONFERENCE

to be held in the Massey Hall, O. A. C., Guelph,

APRIL 4th AND 5th, 1918

The spring of the year is a good time to consider plans for greater efficiency in Dairying for the coming season.

Hon. Mr. Orrac (conditional), Dr. Creelman, Dr. L. McKay, Chas. G. Hart, Mr. C. J. Hart, Messrs. Stonehouse and Doherty, representing Milk Producers; J. McLean, (Milk Dealers); J. Hamilton (Milk Dealers and Ice Cream); G. A. Putnam, R. J. McLean, (Cheese Mfrs.); F. Herns, G. C. Publow, Mack Robertson, J. A. McPeters, (Cheesemakers); D. Macmillan, B. E. Macmillan.

The Presidents of the Eastern and Western Dairymen's Associations, Messrs. Longfellow and two of the session, and Mr. S. Young, President of the Ontario Dairymen's Association at the first session.

This meeting will represent every phase of Dairy Industry. On the second day there will be a special dairymen and dairy woman's meeting. Music at evening session.

For programs, apply to
M. H. DEAN, O.A.C., GUELPH,
ONT.

"Crop Yields," the first bulletin from this bureau is now ready for distribution.

March 21, 1918.

Spring Manager

A. A. McMillan, M.A. Spring approaches and ewes are getting ready to lamb. They will require feeding space. If they should be divided, are expected to lamb in the warmest and most sheltered part of the building, be taken that the flocks are level, as even the lamb are apt to get sick. The lamb should be provided with a number of individual pens, so that they can easily be construed. These are simple and are built along the side of the pen. The ewe is in the individual lambing pens being born, together and there is either of the lambs either from the mother. The ewe to mother one of

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Greater Canada are importance, on old soils adian yields except when ods produce pictured here

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Spring Management of Ewes

A. A. McMillan, Macdonald College.

Spring approaches, and the ewes are getting heavy. Lamb they will require more pen and feeding space. If the flock is large it should be divided, and ewes which are expected to lamb first removed to the warmest and most comfortable pen in the building. Care should also be taken that the floors of the pens are level, as ewes that are heavy in lamb are apt to get on their backs. The lambing pen should also be provided with equipment, so that a number of individual lambing pens can easily be constructed when required. These are usually made and are built along the warmest side of the pen. The ewe is much quieter in the individual lambing pen. In case of twins being born, both are kept together and there is no danger of either of the lambs getting strayed from the mother. The failure of a ewe to mother one of her lambs in-

variably results from one lamb getting strayed from its mother shortly after birth. In case the ewe receives special attention at lambing, this can be given in the separate pen without disturbing the rest of the flock. Good ventilation should be provided in the lambing pen as the ewes must, of necessity, be more closely confined.

It is important that the attendant be on hand at lambing time to see that everything is going well. Ewes should not be disturbed unless assistance is necessary. The most common causes of trouble at lambing are large lambs and malpresentations. In the first case the ewe may be assisted in giving birth to her lambs, and in the second case the attendant should make himself familiar with the various forms of malpresentation and the method of correcting same. Failure on the part of the attendant to lamb the ewe will necessitate the service of a veterinarian.

Enough Milk for Twins.
With proper feeding a ewe usually

has sufficient milk for two lambs. When three lambs are born, the third will do better if transferred to a ewe that has only one lamb or one that may have lost her lamb. If a ewe dies after giving birth to a lamb, or if she for some reason cannot raise her lamb, it should, if possible, be placed with another ewe rather than trying to raise it on the bottle. The change is most readily made shortly after the lambs are born. In some cases the change may be made without difficulty while in other cases the ewe obstinately refuses to mother a strange lamb. In such instances various methods are used to induce the ewe to adopt the lamb. When a lamb dries its skin may be removed and placed on the lamb that you wish the ewe to adopt, and usually no trouble is experienced. The ewe may also be closely penned or tied, the lambs being brought in once or regular intervals until the preference disappears. This may be assisted by milking some of her own milk on the head

of the strange lamb and by the application of strong smelling drugs to the nose of the ewe, such as alcohol, brandy, etc.

A few days after lambing the ewe may be gradually brought back to her full feeding allowance besides giving her all the green roots she will eat. A little oil cake may be added to the oat and bran ration, particularly if clover or alfalfa hays are not available. Mangels may be substituted for swedes as they are better milk producers. The ewe should be kept on a liberal and highly nitrogenous ration until they are turned to pasture. At ten days to two weeks of age the lambs will usually begin to nibble at grain, and they should be given all they will eat. A lamb creep provided with a trough will allow them to feed at their leisure. Crushed oats, bran and oilcake together with clover or alfalfa leaves provides a suitable ration for growing lambs.

The change from inside feeding to pasture should be made gradually.

Forty-nine bushels to the acre

Grown in Ontario

Greater crop yields in Canada are of world-wide importance. European yields on old soils far exceed Canadian yields on new soils—except when improved methods produce crops like that pictured here.



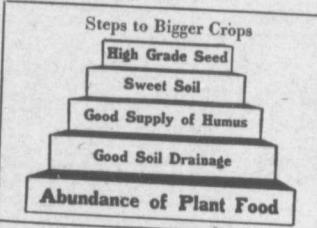
Announcement: The Canadian Fertilizer Association have established a Bureau which will encourage and assist Canadian farmers to achieve greater results in soil tillage, fertility maintenance and crop production. This Soil and Crop Improvement Bureau, under the direction of Henry G. Bell (a native of Ontario and a graduate of the Ontario Agricultural College, later Prof. of Agronomy University of Maine), co-operates with all organizations working for the improvement of Canadian Farming. Farmers are urged to take full advantage of this valuable information service which is free to all.

Fertilizer

If the labor problem limits areas under crop you can increase yields 50 to 75 per cent, by careful soil preparation, seed selection and judicious use of fertilizers, and thus use the labor to best effect.

Fertilizers carry exactly the same plant food constituents as are carried by manure, but in more concentrated form.

Dr. C. A. Zavitz reported in 1917, the following results. Complete fertilizer used with winter wheat gave an increase of 5.2 bushels per acre at a cost of 82 cents per bushel (pre-war prices) when applied in the autumn; and an increase of 8.3 bushels per acre at a cost of 51 cents per bushel when applied in the spring.



What to Do Now

Top-dress fall wheat with fertilizers. It is your last opportunity to increase 1918 fall wheat yields. Prepare to fertilize spring crops. Use fertilizers this spring and profit by high crop prices.

Greater Crop Yields

The splendid wheat yield pictured here was grown in Western Ontario last summer on well prepared soil enriched with 300 pounds of fertilizer

Manure

Manure spread thin yearly (4 or 5 tons per acre) pays better than manure applied in equal quantity at one application every four or five years.

8 tons manure (protected from rain and snow) strengthened by 320 lbs. acid phosphate to the acre increased wheat yields at Ohio Experimental Station 5.38 bushels per acre.

Similar fertilization increased corn yields 11.54 bushels per acre.

If you do not have enough manure to apply this quantity per acre, use complete fertilizers rather than acid phosphate.

Send postal card today for Bulletin, "How to Increase Ontario Crop Yields"

Soil and Crop Improvement Bureau

of the Canadian Fertilizer Association

1111 Temple Building, Toronto



Yes! Yes! We Will Wait 100 For the Self Selling, Satisfying Sale of Honest, Healthy, Handsome 100 HOLSTEINS

By Belleville Sold on April 3rd
Big Business Breeders

Whose past seven spring sacrifice sales are guarantees of faith, friendship, fraternity and Big Bargain Buying

Catalogue now ready to mail to you.

ADDRESS

F. R. MALLORY, Frankford, Ontario



KEITH & SONS
THE FARMER'S SEEDSMAN
SEEDS FIFTY-TWO YEARS SERVICE

1866

DECIDE WHAT TO PLANT NOW!

Seeds will be in greater demand this year than ever before. The big increase in seed and the Government's demand for increased production. Do not delay your order. Make your selections now from our new catalogue and get the best seed money can buy and pay no more than you would.

CORN.

On account of the severe shortage of seed corn this year, particularly for the big market, we will accept orders from Canada—we will accept orders NOW—for seed corn (varieties) of your own, or we will accept your order and send it to our receiving delivery

from United States War Board. This corn is of excellent quality and we quote the following varieties—

Red Cob 5.00 per bushel
Early Spring Charmer 5.00 per bushel

(Would do as a substitute for Wisconsin No. 7.)

Learned 5.00 per bushel
Learning Fodder 5.00 per bushel

Mammoth Southern 5.00 per bushel

Freight paid on all orders of \$25.00 or more.

and we will add 10¢ per bushel for shipping points.

We are in the market for 6-rowed and 2-rowed Barley, Marquis Wheat, Emmer Black Barley, Sweet Clover, Rye, Buckwheat, Oats, No. 1 White, Silver Hulled Buckwheat. Send samples.

We will pay railway freight to most parts of Ontario and Quebec on orders of \$25.00 or more.

Bags for Clover and Timothy, 4c extra. Bags for Grain Free.

GEO. KEITH & SONS
SEEDS

124 KING ST. E.
TORONTO

MAPLE GORE HOLSTEINS

Our 5-year-old Pauline cow has just completed a record of 614.4 lbs. milk, 2 months old, and 17.50 lbs. butter in 10 days. Her son, 2 months old, and grandson 3 months old, sired by the Alpena bull, whose dam and sire's dam, average over 30 lbs. butter in seven days; also another grandson, 5 months old, sired by the 30-lb. bull, KING STIGGS OF BURFORD, for sale at reasonable prices. These are choice and will please you.

ELSWORTH PLANT R. R. NO. 2 BURFORD, ONT.

Complete Dispersion Sale of Pure Bred Holsteins Monday, April 1st, at 1 p.m.

Owing to the scarcity of help I have decided to sell by Public Auction at my farm about three miles east of Brampton, my entire herd of Pure Bred Holsteins.

The offering consists of 35 cows and heifers, either fresh, or due to calve, some with R.O.M. and R.O.P. official records, others not tested.

ALSO THE HERD BULL, LA KEVEEW JOHANNA RATTLER, 25.53, whose dam is the highest producing daughter of LAKEVIEW RATTLER, 37.54 lbs. butter in 7 days, and also former Canadian Champion in the 8 mos. after calving division. This bull is 2 years old, a show animal, and second to none in Canada in point of type or breeding.

Brampton may be reached by either C.P.R. or G.T.R., and is only a half hour's ride from Toronto.

In corresponding address

B. F. SWEDELIUS. R. R. No. 4. Brampton, Ont.

Deal with Farm and Dairy Advertisers

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SIMPLY CAN'T
Filler makes it abso-
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BEANS—Rennie
BEET—Rennies
CABBAGE—Ren-

CARROT—Ren-

CORN—Rennie

CUCUMBER—Ren-

LETTUCE—Ren-

MUSK-MELON—

Lined

PARSLEY—Chi-

PEAS—Little Ma-

Improved

RADISH—Cooper

TOMATO—Bonne

TURNIP—Early

TURNIP—Golden

ONION SETS—V

Lavender Gem At-
Early Blooming Co
Giant Yellow Slip-
New Red Sunflow-
Rennie's XXX Ma-
Mastodon Pansy—

Rennie's XXX Sele-

When buying fr
dealer hasn't the

WILLIAM R
KING & MA
150 BROAD

HILL-CREST HOLSTEINS

The Union Stock Yards—Toronto—Thursday, March 28, 1918
You are cordially invited to attend.

This Sale will set the Price for yours—Make it a "Hummer."

THE WONDERFUL GILSON

SIMPLY CAN'T BE CLOGGED. The simple, scientific, carefully worked-out Piller makes it absolutely impossible to slow the throat of the blower. The Gilson is the lightest running blower cutter ever made. The Gilson has broken all records for high speed. Has been used and rapid work with light power. A 4-h.p. operates the small size Gilson. It is rightly called the

KING OF SILO FILLERS

because of its remarkable elevating power, absolute safety, durability, strength and weight—stands supreme. It has a convenient and quick knife adjustment; solid steel-bound cutting mechanism with the same power than ANY other ensilage cutter IN THE WORLD. Write to-day for catalogue and proof. Manufactured and guaranteed by—

GILSON MANUFACTURING CO. LTD. 507 York St., GUELPH, Ont.



12 MONTHS OLD SIRE

SUNNYBRAE SYLVIA—more black than white; straight lines; low down; heavy body. Price for quick sale \$100.
SUNNYBRAE VALENTINE RATTLER—10 months; ½ white; same style and price.

L. ROGERS "SUNNYBRAE" MANVERS, ONT.

RENNIE'S Big Crop SEEDS

FOOD production—that is the big call for 1918. Everyone must produce as much as possible—which means every available square yard under cultivation, and the widespread use of Rennie's seeds.

BEANS—Rennie's Stringless

	Pkt.	oz.	½ lb.	lb.	5 lbs.	25 lbs.
Green Pod	.10	.10	.55	2.00		
BEEF—Rennie's Spinach Beet	.10	.35	1.00			
CABBAGE—Lettuce						
CARROT—Rennie's Master Garden	.10	.75	2.25			
CORN—Rennie's Golden Bambo	.10	.40	1.20	3.50		
CUCUMBER—White Wonder	.10		.25	.65		
LETUCE—Rennie's Selected	.10	.30	.90	3.00		
MUSKMELON—Delicious Gold Lined	.05	.30	.90	2.75		
PARSLEY—Champion Moon Curled	.05	.40	1.20	3.50		
PEAS—Little Marvel	.05	.25	.75	2.25		
Improved Strategem	.10		.15	.45	2.00	
RADISH—Cooper's Sparkler	.10		.15	.45		
TOMATO—Bonny Best	.10	.60	1.75			
Early Detroit	.10	.60	1.75			
TURNIP—Golden Ball(Orange Jelley)	.05		.25	.75		
ONION SETS—Yellow Sets—Selected	.35	1.70	.25			

LOOK FOR THE STARS

Every item in the Rennie 1918 catalogue represents unexcelled value. Many of the items in star borders are simply wonderful.

FLOWER SEEDS

	Pkt.	Not Prepaid
Lavender Gem Aster		
Early Blooming Cosmos—Mixed		.15
Giant Yellow Tulip Poppy—California		.10
New Red Sunflower		.15
Rennie's XXX Massif—Flowering Hollyhock—Mixture		.25
Mastodon Pansy—Mixture		.20
Rennie's XXX Select Shirley Mixture—Single		.10

When buying from dealers, insist on Rennie's. If your dealer hasn't them, we will ship direct.

THE WILLIAM RENNIE COMPANY LIMITED
KING & MARKET STS. TORONTO
520 QUEEN INDUSTRIAL, WINNIPEG
VANCOUVER

CREAM WANTED

We again solicit the patronage of both old and new shippers for the coming season. Shippers will receive the same careful attention as in the past, and highest prices will be paid promptly for good churning cream.

WRITE US FOR PRICES AND PARTICULARS.

Valley Creamery of Ottawa, Ltd.
319 Sparks St., Ottawa, Ont.

CREAM WANTED

We supply cans. We pay all express charges. We remit daily. We guarantee highest market prices. For prompt service ship your cream to us. A card will bring you cans.

MUTUAL DAIRY AND CREAMERY COMPANY
N. Yankoo & Co.,
743 KING STREET WEST TORONTO, ONT.

NEPONSET ROOFS

NEPONSET PAROID ROOFING

NEPONSET TWIN SHINGLES

THRIFT and production are the farmer's watchwords this year. Paroid is a tremendous help to the thrifty farmer, because the price is right, it is easy to lay, will require no repairs, and will last for many, many years. To date, Paroid has a record of over 19 years' service.



NEPONSET Paroid ROOFING

If you are roofing, or repairing roofs this year give your building the protection of Paroid. For instance, burning cinders falling on a Paroid roof die out harmlessly.

Paroid makes an attractive roof, too, either in the gray finish, or with the red or green crushed slate surface.

Insist on the genuine Paroid. Look for the label as shown here.

Neponset Twin Shingles for all Residences
Sold by Hardware and Lumber Dealers

BIRD & SON - Head Office, Hamilton, Ont.
Warehouses:-

Montreal, Toronto, Winnipeg, Calgary, Edmonton, St. John
The Largest Manufacturers of Roofings, Wall Board
and Roofing Felts in Canada



AYRSHIRE SALE AT WOODSTOCK.

NO more admirers of Ayrshire cattle will have the opportunity of securing at unreserved auction their choice 50 head of Ayrshires under the hammer at Woodstock, March 27th. The Southern Counties Ayrshire Breeders' Club is putting on its sixth consignment sale on this date, and is offering 41 females and 10 young bulls. Many choice animals have been sold at former sales, but we believe the present consignment will be even more attractive. The heretofore offered by the very much alive breeders' club. A large proportion due to freshen the spring.

Messrs. MacVicar, Prince, Belmont, are consigning nine head of females, among them three grand dairy cows. This herd had at its peak several years ago Canada's greatest Ayrshire stock bulls. Garlaugh Prince Fortune was the world's champion Ayrshire, and his son, Garlaugh May Mischievous, the present world's champion Ayrshire, came from the same dam. Following Prince Fortune was the Advance of Walmer Lodge, whose sire was the record holder, and his dam, 303 lbs. of butter—and whose dam, 303 lbs. of butter—was Selwyn Prince Ideal, in addition to which she was the Canadian R.O.P. champion. What more could be asked for in Ayrshire breeding?

Mr. J. L. Stansell, Stratfordville, is putting in eight head, and it is needless to say that follows as a logical sequence that there will be some extra stuff in his lot. There are a few strange types of things sired by his famous herd sire, Selwyn Prince Ideal, in addition to a choice lot of young cows due to freshen about time of sale.

Mr. E. E. Stansell, Vienna, Ont., while one of the younger club members, is rapidly coming into the front as a breeder and discriminating buyer. He has put in nine head, among which will be found some extra stuff of this male. Three extra well-bred, very young bulls are included in this lot.

Mr. John Morrison, Mount Elgin, is putting in two young bulls, possessing great utility barking and four-posters, one being Milkmaid 2nd, a five year-old heifer, an exceedingly useful appearing cow.

Mr. F. H. Harris, the president of the club, is consigning six females of very rich breeding, all of them are in calf to his noted herd sire, the handsome Lucky Master Swell, a son of R. R. Ness' famous champion, Masterpiece.

Mr. E. Burgess Parker, Norwich, is sending one bull and three females. The bull, a two year old, is a son of British Champion, while his dam is a half-sister to the Canadian champion R.O.P. cow, Lady Jane. She is reported to be a good producer. The seven-year-old heifer, Aagie's Beauty, in this lot, should arouse some spirited bidding at the sale. She qualified for a R.O.P. with nearly 12,000 lbs. milk and her last analysis showed a record equally as good. Messrs. E. B. Palmer, Son, Norwich, are putting in the noted cow, Snow King, the dam of the famous bull, Snow King. She will be fresh in milk for the sale.

Mr. R. J. A. Smith, Hatchley Sta., is sending in all females. The plan of this lot is undoubtedly the five-year-old cow, Jean Armour of Parkfield. She possesses the fashionable white color with good bones and great capacity. She is a granddaughter of Jean Armour on one side and Scottie on the other. She is a large, well-balanced udder, with large, well-placed teats. Messrs. Jas. Bogg & Son are putting in a young bull with good R.O.P. barking and a son of C. M. Howey, Burford, is also putting in a young bull, sired by a son of Mr. Wm. Springhill Cashier, while his dam comes from the noted Lady Jane family. He is a good bull fit to head a good herd.

The sale will be held in the Dr. Rudd

**50
HEAD**

**50
HEAD**

SIXTH CONSIGNMENT SALE

of

PURE BRED AYRSHIRE CATTLE

from the herds of

Southern Counties Ayrshire Breeders' Club

to be held at

THE DR. RUDD SALE STABLES, WOODSTOCK, ONT.

March 27th, 1918, at 1 p.m.

VIGOR AND PROFIT

**JOHN MCKEE,
Sec. and Sales Mgr.,
NORWICH, ONT.**

F. H. HARRIS,
President,
MOUNT ELGIN, ONT.

Write the Secretary
for a catalog.

JOHN MCKEE,
Sec. and Sales Mgr.,
NORWICH, ONT.

MOORE & DEAN,
Auctioneers.

sale stables, which are situated in the centre of the city. The sale room will be raised on the occasion, and everybody made comfortable. Write to John McKee, Secy.-Treas., Norwich, Ont., for a catalogue.

CHOICE AYRSHIRES

A high-class Ayrshire bull calf for \$25. (imp.) No. 3686. Also a pair of CEDARBROOK LILY GRACE (imp.) No. 3277. Large calf and 2 or 3 helper calves at \$15 each, from good dams, and bull sired by W.H. MILLING'S HEARTS (imp.) 3278. When the sale at Stoney's credit Farm, call or write to

J. B. CAIRNCROSS Box 124

A short distance East of McDonald College.

PEACH BLOW AYRSHIRES

Young Stock for sale, always on hand (both sexes), from high-testing heavy producers. Good adders and large teat a special feature on my herd. Three fine young Sire ready for service. Get particulars of them if you need a sire. R. T. BROWNLÉE, Peach Blow Farm, HEMMINGFORD, Que.

CHOICE YORKSHIRE HOGS AT RIGHT PRICES

Boars and sows, all ages, from best prize-winning stock—a few good hogs also, younger sows. White Leghorn hens for hatching—Barred Rock, 100 eggs. S. S. Brown Leghorn, Barred Rock, R. I. Reds, \$2 per 10; the pair, \$10. Paws and White I. R. Duck eggs, \$2 per 12. Chinese geese eggs, \$2 each.

T. A. KING

MILTON, ONTARIO.

TANGLEWYLD
AYRSHIRES

The Leading R. O. P. Herd
Large Cows, Large Tests, Large Red
cords, High Testers. Choice Young
Bulls and Bull Calves and a few Cows
for sale.

WOODSEY BROS., B. B. RR. 1, HOMFIELD, ONT.

SPRINGBANK AYRSHIRES

Bulls from one month to seven
months old for sale. All are bred
to color and type and from R.O.P.
dams. If you need a well-bred
bull write at once.

A. S. TURNER & SON,
Ryckman's Corners, Ontario.

JUST A WORD
about our offering to the
BIG AYRSHIRE SALE

At Woodstock, March 27, 1918

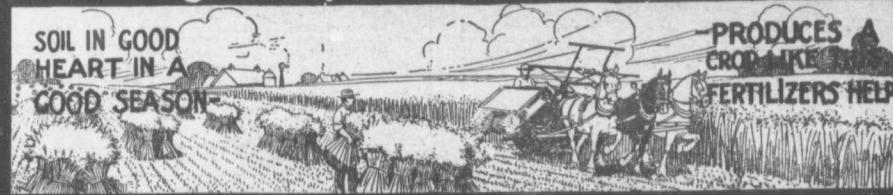
2 extra good bulls, old enough
for service; choice and
halves by SHILWOOD PRINCE
IDALIA, 5 young cows due to
freshen about sale, all splendid
individuals of gilt-edged breeding.
EVERYTHING FOR THE PERSONAL
GUARANTEES OF satisfaction,
REFUNDED, goes with
every animal we offer. Write for
catalog and look up our consign-
ment.

J. L. Stansell, Stratfordville, Ont

Every Farm should have
an Aysturture

MORE MILK
MORE BUTTER
MORE PROFIT
CANADIAN AYRSHIRE BREEDERS' ASSOCIATION
HUNTINGDON QUEBEC

Heavier yields per acre with larger profits-



It Pays to Feed the Soil

The soil is a vast reservoir of plant-food, but most of it is not immediately available for plants. Only to the extent that this supply is rendered available can profitable crops be grown. Good cultivation, and the action of plant and soil acids, increases the yield by increasing the amount of plant-food which the crops can obtain. Manures and fertilizers add to this amount.

Good cultivation and the use of fertilizers are particularly important this year. It is the will of the farmers of Ontario that every acre of land shall produce the maximum yield this coming season that circumstances permit.

Lime and Humus—the Winning Combination

If your land has been well cultivated and is well drained but the yields have not been satisfactory, it will pay you to study the lime and humus question carefully.

Why Lime is Essential

(1) It is a soil corrective; many soils have become acidic because the lime has been leached away. Crops will not thrive in an acid soil.

(2) It stimulates plant growth by acting on the compounds in the soil containing plant-food, making these more available for plant use.

(3) It acts upon the texture of heavy soils, making them less sticky and producing a better condition of tilth.

(4) It produces a condition of soil under which beneficial bacteria thrive best.

(5) It hastens decay of organic matter, thus liberating humus and nitrogen.

Sufficient lime for ordinary soils may be supplied by applying from 1 to 2 tons of ground limestone rock per acre or $\frac{1}{2}$ to 1 ton of burned lime per acre. Do not use freshly burned lime on light soils or on a growing crop.

Humus is Absolutely Necessary

(1) Humus is only another name for decayed vegetable matter in the soil.

(2) It is practically the sole source of nitrogen for the plant, other than that gathered by nitrogen-fixing bacteria, or whatever is added in a mineral fertilizer.

(3) It furnishes acids aid in bringing into solution the potash and phosphoric acid in the soil.

(4) It greatly increases the water holding capacity of the soil.

(5) It very much improves the physical condition of the soil.

Humus is Best Supplied

By (a) farm-yard manure, (b) ploughing down clover sod, (c) ploughing down green crops.

Farm-yard Manure supplies the most-needed fertilizer element—nitrogen, phosphorus and potash, as well as humus. Nitrogen is supplied in varying amounts, however, and are not always in the proportions required to ensure the biggest yields of different crops. That is why it is often best to use both farm-yard manure and commercial fertilizer.

Ploughing Down Clover Sod is a decidedly cheap way to supply humus. It usually pays best to take off but one crop and plough the sod. Then, too, bacteria which go with clover, gather nitrogen from the air and store it within the plant in its roots as well as in its stems and leaves. Thus this most costly of plant-foods (nitrogen) is thrown into the bargain as it were. It is one of the few chances to get something for nothing.

Green crops of any kind, ploughed under, assist in producing humus and in increasing necessary bacterial action.

Commercial Fertilizers Increase Crops

All of the foregoing practices are highly important, but they are not always sufficient to restore to the soil the food elements taken away by the crop. Commercial fertilizers used in conjunction with farm-yard manure will usually give best results. Nitrogen, Phosphoric Acid and Potash are the food elements supplied by these commercial fertilizers. It is always wise when purchasing these to insist upon an analysis showing the available quantities of these plant-food elements. Study the guaranteed com-

position that must be printed on each bag of fertilizer sold. Information will be sent upon request to the Department of Agriculture which will enable you to make a satisfactory comparison of different analysis.

What Does My Soil Need?

That is the question each man must ask himself in studying this fertilizer question. The needs of different soils vary according to the crops grown in the past, the manure previously applied and the character and origin of the soil.

First: Send a representative sample of your soil to the Department of Chemistry, Ontario Agricultural College, Guelph. Give information regarding subsoil drainage, the crops that have been grown and the crop you expect to grow this year—and what manure has been applied for the past three years. An examination will be made and as much information given you as possible.

Second: There is no doubt that commercial fertilizers have an important place in Ontario farming when used as a supplement to farm-yard manure in crop cultivation. In order that you may note the results of applications, always leave a strip through the field unfertilized so that the effect of the fertilizer may be observed.

For full particulars regarding any phase of the fertilizer question write the Office of the Commissioner of Agriculture, Parliament Buildings, Toronto. Send for Bulletin 225, on "Fertilizers" and Bulletin 238, "Lime and Its Uses in Agriculture."

Ontario Department of Agriculture

Parliament Bldgs., Toronto

SIR WM. H. HEARST
Minister of Agriculture

DR. G. C. CREELMAN,
Commissioner of Agriculture



-can be obtained when soil is properly fertilized