

Conservation

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Electricity and Gas as Domestic Fuels

Figures Showing Comparative Cost which are of Interest to Every Householder

Electricity has not proved generally feasible for domestic heating, but, as a consequence of gradual improvements, it has become a keen competitor with other fuels for cooking. Its convenience and efficiency for this purpose are well known, but not many people are aware of its low cost as compared with other fuels.

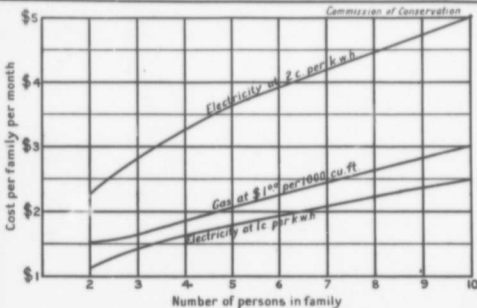
The above chart shows the monthly cost of electricity and of gas for cooking for a family of from 2 to 10 persons, the cost for electricity being figured on rates of 1c and 2c per kilowatt hour, and that for gas at \$1 per 1,000 cubic feet.

For instance, for a family of five, the monthly cost for cooking only would be \$1.80, using electricity at one cent per k.w.h., as compared with \$2.05 for gas at one dollar, but, on the other hand, if the cost of electricity is two cents per k.w.h., the monthly bill would be \$3.60.

The chart was compiled from figures given by the Hydro-Electric Power Commission of Ontario. The Commission operates a number of gas plants in addition to its extensive system of electric distribution and is thus in a position to collect authoritative information enabling a comparison of the cost of the two fuels for cooking purposes.—I.G.D.

Nearly \$300,000 Fire Loss in B. C. Forests

The fire season of 1917 was an unusually severe one in British Columbia. Reports made to the provincial Forest Branch show that, exclusive of the railway belt, a total of 986 fires occurred. In fighting these fires, the Forest Branch expended \$88,246. The total area burned over was 236,186 acres, of which only 2,825 acres was merchantable timber land; 16,226 acres contained valuable reproduction, and 159,886 acres were classified as cut-over, old burn not restocking, or unmerchantable mature timber. The total damage done is estimated at \$291,726. The staff of the Forest Branch has suffered severely through enlistment for overseas service.—C.L.



Electric Traction May Supersede Steam

Low Efficiency of Steam Locomotives and Coal Shortage may be Determining Factors

The electrification of steam railways would undoubtedly effect a great saving in coal. At present, the steam railways require about six pounds of coal to produce one horse-power hour. This is about three times the quantity which would be required to produce the same amount of power in a modern central steam power station. As the efficiency for the conversion of energy in the coal to mechanical power for steam locomotives is less than five per cent, therefore, if every pound of coal now utilized for steam traction were converted into power, even on a basis of 50 per cent efficiency, it would be used ten times more economically than when burned under present conditions on steam railways.

In a recent address before the American Institute of Electrical Engineers, President E. W. Rice showed that with electrified railways the coal shortage and the 'heatless days' of the past winter would probably not have occurred at all. The situation was not so much due to lack of production, as to the failure of the agencies of distribution, which would have been largely prevented if the railways of the country had been operated by electricity instead of steam.

It has been estimated that the substitution of electricity increases the available capacity of existing tracks fully 50 per cent. Again, 16

per cent of the capacity of our steam railways is taken up by the coal required for their own consumption, and in extremely cold weather, when coal is most needed, steam locomotives are at their lowest efficiency.

Electrical traction is an accomplished fact. No other sphere affords an opportunity for such a saving of fuel as the replacing of steam locomotives by electric. At the present time, the railways of Canada use, annually, approximately 9,000,000 tons of coal, or about 4,000,000 tons more than the total required for domestic heating.

Survey Water-powers of New Brunswick

Commission of Conservation Will Soon Begin. Coal Shortage Shows Need of Development

The Commission of Conservation will shortly undertake an investigation into the water-powers of New Brunswick that are capable of developing any considerable amounts of power. The recent coal shortage has awakened the province to the fact that its water-powers are not being adequately utilized and several Boards of Trade in the province are urging that the larger undeveloped powers be developed and that, as a basis for such action, a thorough investigation of water-power conditions be made. The suggestion has also been made that interned alien labour be used in the work of development.

Seeds are scarce this year and will be scarcer next. Grow your own.

Relaxation of Game Laws Inadvisable

Work of Years Would be Undone and Food Supply Would Not Be Materially Increased

The scarcity of food has resulted in various government organizations, directly concerned, being flooded with suggestions for the relaxation of game laws, and the Commission of Conservation has taken some pains to ascertain just what effect such a course would have. The conclusion reached is that it would have no appreciable effect in relieving the shortage of meat and would result in the very serious depletion, and in some cases the total extinction, of valuable game species. Many well-intentioned persons in making such suggestions overlook the fact that wild game, once it is depleted to a certain point, will, even under natural conditions, continue to decrease until extinct and can never, as in the case of domestic animals, be restored.

Dr. C. Gordon Hewitt, Dominion Entomologist, in referring to such proposals, said in part: "While these suggestions are undoubtedly made with the best of intentions, they would, if put into practice, undoubtedly result in consequences of a most serious nature which are not realized by those unacquainted with the present status of our wild life and with the progress of game legislation and its enforcement. The chief cause of depletion has been either the absence of game laws or laxity in their enforcement. The struggle to prevent extermination has been very uphill work, but, owing to the attitude of the real sportsmen, as opposed to the market hunters and 'game hogs,' and of the public generally, steady progress has been made.

"To relax these efforts at the present time would more than undo the results of the hard work and effort of years and would be catering to those individuals who have been the greatest enemies to game conservation, men who are entirely selfish in their point of view and who have very little interest in the welfare of the country as a whole. In the West, this class is largely made up of foreigners. To all these persons who violate the game laws

(Continued on page 14)

Saving the Forests of Ontario from Fire

Effective Measures Now in Force to Save the Remnant of the Woodlands of the Banner Province

Great strides towards effective forest fire protection were made in Ontario last year, under the Provincial Forestry Branch, notwithstanding that the transfer of authority over this work was not made until a relatively late date. About 1,100 men were engaged in this important work, including fire rangers, inspectors and head office supervision. The organization is to be further extended during the coming season, and the supervision will be stricter. Increasingly efficient results may be expected from year to year, as the men become better trained and incompetents are weeded out.

A total of 1,110 fires were reported, of which 68 per cent occurred before July 1. Of the fires attributable to railways, 60 per cent occurred along the National Transcontinental. Settlers clearing land were charged with 91 fires, and neglected camp fires with 154.

The total area burned over was 384,164 acres, of which 19 per cent was timber land, 39 per cent cut-over land, 20 per cent young forest growth, and 21 per cent barren. The total amount of timber damaged was estimated at about 15 million feet, in addition to 91,246 cords, mostly pulpwood, and 781,685 ties.

Material progress has been made in the construction of permanent improvements, such as lookout towers, trails, telephones and portages. A beginning has also been made in securing the disposal of logging slash where this constitutes a danger to life and personal property, as is frequently the case in the clay belt. Some 3,500 permits were issued for the burning of settlers' clearing slashes. This means a very great reduction in the danger of fire escaping and causing damage, to say nothing of loss of life.

Ontario has now definitely taken its place alongside the other governmental agencies throughout Canada that are adopting up-to-date methods of organization and policy for the reduction of the enormous forest fire losses which have proved so costly in the past.—C.L.

PROPAGATING WHITEFISH

The State fish department of Michigan each spawning season catches a large number of whitefish to supply their several hatcheries with spawn. It has been found that this is a better way of propagating the fish than to let them spawn naturally, for the reason that carp and other 'cannibal fish' eat the spawn in the natural haunts, while, in the hatcheries, the spawn is, of course, protected until the young fish are large enough to protect themselves.—*The Fish-ing Gazette*.

U. S. Food Board Upholds Game Laws

Says Letting Down the Bars Would Destroy Valuable National Asset

The United States Food Administration has carefully considered increasing the food supply by relaxing the game laws and has decided against such a course. In a statement recently issued it refers to the strenuous efforts made by the various States to husband and increase the game supply, to the action of Congress in concluding a Migratory Birds Treaty with Canada to further the same purpose, and states that "it has reached the conclusion that the maximum supply can best be obtained by constantly increasing the breeding reserve of game under present and even more progressive laws directed toward that end. . . . Any effort to weaken the present laws or in any way relax them in one locality would immediately lead to a demand for such relaxation of laws in all other localities insuring a rapid breakdown of the whole legal structure of present game protection erected after efforts extending over numerous years.

"Once the perfected laws were relaxed to the point where game could be killed more freely, notwithstanding the fact that numerous gunners have gone to war, the game would be quickly destroyed by largely increased numbers of local gunners using modern methods of transportation and high-powered fire-arms. The present game supply of the country should be considered in exactly the same way as that of domestic stock and fowls, the breeding reserve of which should be increased to insure increased supplies for food. . . . Since an attempted relaxation of laws would tend toward a rapid destruction of game, no emergency has as yet arisen sufficiently acute to warrant the Food Administration advocating the destruction or impairment of game which forms a valuable national asset."

Relaxation of Game Laws

(Continued from page 13)

on all occasions, food conservation has no meaning and any relaxation of the game laws would simply legalize their destructive tendencies to the detriment of the rights of game and the rights of those who are accustomed to observe the law. "The amount of wild meat that would be obtained would be comparatively small, but the destruction involved in obtaining it would affect, in the most serious manner possible, the future of our game animals. In cases of absolute want or necessity it is always possible for the provincial game officers to make special arrangements under permit."

Factors in Production

5. Tillage to Save Seed

Corn, clover seed and some of the cereal grains are very scarce and high in price this year. On this account it would seem wise to prepare the soil well to receive the seed. If soil conditions are made favourable, less seed is required. Small seeds, such as clover and grass seeds, will give a higher percentage of germination if sown in carefully prepared soil which will permit of the soil grains packing in closely around the small seed, so as to convey the moisture necessary for germination. Any of the farm seeds, in fact, will germinate better in finely pulverized soil than in rough, coarse clods. Use the proper implements at the right time to most effectively fine the land. After the seed is in the ground nothing can be done that will wholly make up for a lack of cultivation before sowing the crop. While early seeding has given uniformly better results for a long period of years in experiments conducted at the Ontario Agricultural College and is thoroughly desirable, it is not wise to sow expensive seed on land not properly prepared. Good preparation of the soil must be combined with good seed and early seeding if maximum results are to be secured. Maximum yields are needed this year more than ever before in order that we may feed the Allies 'over there' and Canadians in Canada.—F.C.N.

VALUE OF GRAIN SCREENINGS

Three years ago the Seed Branch of the Department of Agriculture, at Ottawa, published a bulletin on the feed value of grain screenings, which included the results of feeding tests undertaken by the Experimental Farms Branch. Owing to the growing scarcity of feeds, the elevator operators have paid more and more attention to these screenings with a view to preventing the waste of any small or broken grains or weed seeds that might be used for feed. As a result, the lower grades of screenings are now composed almost entirely of very small weed seeds, which are very difficult to grind properly and are not relished by stock unless mixed with other feeds. At the present time, the Feeds Division of the Live Stock Branch is making a further careful study of the question with a view to obtaining the maximum benefit from this important by-product of the farm and the grain elevator. The results will be looked for with interest. The bulletin entitled "Grain Screenings," already referred to, may be obtained from the Publications Branch, Department of Agriculture, Ottawa.

Another Industry May Start in Canada

Manufacture of Safety Lamp Glasses Possible—Bureau of Standards Necessary

Previous to the war, the miner's safety lamp glasses used in Canada were imported from Germany and Austria. They are made from a special kind of glass having a high resistance against breakage from a blow, or sudden change of temperature. The material used in safety lamps must necessarily be of a high quality as a defective lamp may be the means of causing a mine explosion. The United States was also dependent on enemy countries for supplies of safety lamps and lamp parts, but, through the cooperation of the Bureau of Standards and the Bureau of Mines, these are now being manufactured in that country.

The price of safety lamp glasses has increased from \$6.50 per 100, before the war, to nearly \$10 f.o.b. New York. The demand for them in Canada is increasing year by year, and the present requirements are in the neighbourhood of 50,000 glasses per annum. There are a number of glass manufacturers in Canada and the production of these glasses would not only prove to be an additional source of profit to the manufacturer, but would also make Canada independent of foreign sources of supply.

Safety lamp glasses and many other imported products now used in Canada may, or may not, have been standardized in Germany, the United States and elsewhere. If it is intended to manufacture these products in Canada, it will be necessary, however, to provide some means for guaranteeing their standard of purity. The importance of this subject, and the increasing purchases made by the different departments of the government, demonstrate the value of a Canadian National Bureau of Standards similar to that in the United States.—W.J.D.

FOR FARMERS ONLY

A Handbook for Farmers is a very useful booklet that has just been issued by the Commission of Conservation. It treats of tillage, use of manures, seed selection, clover growing, the farm garden, weeds and insect pests, and other farm topics, in an informative as well as popular manner. The quantity is limited and the booklet will be supplied on request only to bona fide farmers.

Arrangements are being made by the Western representative of the Food Controller which are expected to insure a plentiful supply of fish for Saskatoon and Regina. Efforts will be made to make it possible for householders to purchase fish at 12½ cents a pound.

**Commission of Conservation
CANADA**

SEN CLIFFORD SIMON, K.C.M.G.
Chairman
JAMES WHITE
Assistant to Chairman and Deputy
Head

CONSERVATION is published the first of each month. Its object is the dissemination of information relative to the natural resources of Canada, their development and proper conservation, and the publication of timely articles on town-planning and public health.

The newspaper edition is printed on one side of the paper only, for convenience in clipping for reproduction.

OTTAWA, APRIL, 1918

FARM TO FAMILY

Two dollars and forty cents was the price paid for a bag of potatoes by a Kingston lady, according to a recent press report. One of the potatoes had a card attached signed by the farmer who grew them, which said: "I sold at \$1.00; what did you pay?" Here again we are faced with the ubiquitous middleman, concerning whose elimination much ink has been shed. Now there are middlemen and middlemen, which is to say that some middlemen are necessary and some are not, and the best way to find out whether a given middleman is necessary or not is to try to get along without him.

The farmer and the city householder are generally supposed to be the worst victims of the middleman and, if the victimizing can be lessened in this case, there should be some hope in others. Here is a suggestion looking toward the accomplishment of that end. Let the newspapers in the larger centres of population feature a "Farm to Family" section in their condensed want ad. page. This would carry advertisements of farmers who had produce to sell to the city consumer and also advertisements of the consumer who wanted to buy from the farmer. To get the movement started, a half-price rate might be offered and the new departure should be well advertised in the news columns of the paper.

The advertising manager having the courage to make this venture would gain considerable fame for his paper and would also prove conclusively whether the farmer and the consumer really do want to get rid of the middleman.—M.J.P.

Canada burns 30,000,000 tons of coal every year, of which 60 per cent comes from the United States. The consumption may be accounted for approximately as follows:—Manufacture of coke, 2,000,000 tons; railway locomotives, 9,000,000 tons; collieries, 1,000,000 tons; bunkering ships, 1,000,000 tons; domestic heating, 5,000,000 tons; industrial heating, 6,000,000 tons; and industrial power, 6,000,000 tons.

**HEAVY WASTE IN
LOBSTER CANNING**

The lobster industry as now conducted utilizes only 20 per cent of the raw material it handles, a Nova Scotia authority on lobster canning estimates. An average season's pack of 160,000 cases requires 25,500,000 lbs. of lobsters, of which only 6,500,000 lbs. go into the cans. The remainder is wasted, although it could be converted into a valuable by-product.

**Co-operative Fire
Prevention in Quebec**

What the Associations Are Accomplishing

Co-operative forest fire protection has proved remarkably successful in Quebec. Four associations are now in existence, patrolling an area of more than 44,000,000 acres of licensed and unlicensed Crown lands and Crown granted lands. About 80 per cent of the licensed Crown land is represented in the membership of these associations. A considerable additional area is included within the boundaries of the respective associations, the owners of which have not yet seen fit to acquire membership.

The season of 1917 saw relatively little damage by fire to the forests of Quebec, due, in part, to favourable weather conditions, but largely to the efficiency of the patrol system. Only 453 fires are reported, burning over 16,488 acres, of which only a small percentage was merchantable timber, mostly on privately-owned land. The total expenditures by the four associations for patrol, supervision, fire-fighting, and permanent improvements, was \$137,093.

The regulation of settlers' clearing fires under the permit system has again proved highly successful. More than 5,000 burning permits were issued by the association rangers. Practically no damage was done by clearing fires set under permit. In a few cases, however, fires were set without permit, causing some damage. In a number of such cases, convicts were secured in the local courts. The settlers, as a rule, are co-operating heartily in reducing the fire loss, and the number of violations of the permit law is decreasing steadily from year to year.—C.L.

**WHAT THE PLOUGH
IS SUPPOSED TO DO**

Aside from crumbling the soil, the chief objects of ploughing are to destroy wild plants so that cultivated ones may take their place; and to bury trash, manure, stubble and potato vines. A plough that does not accomplish these things is faulty. All refuse should be completely covered so that it will not be brought to the surface by the harrow. To bury weeds, clover or other tall green manure crops, a chain should be used, one end attached to the plough beam, the other to the double tree, thus allowing the loop to pull the tall plants down into the furrow to be covered. The jointer or skim-coultter is little used in many districts. Many farmers do not even know what it is. When manure, stubble or grass is to be turned under, it is a very useful attachment. It skims a shallow furrow slice and deposits it in the bottom of the furrow, where it is covered by the main furrow slice and will rot more readily. When stubble or grass is ploughed without a jointer, there is likely to be a line of it between the furrows, which interferes with the harrow or begins to grow and cause trouble. This is a common sight, but could, and should, be overcome by the use of the jointer. The implement dealers of the country could perform a distinct service to agriculture by encouraging the general use of jointers on ploughs. There should be one on every farm.

It is well to have various types of ploughs for the various kinds of land to be ploughed. This costs more, but greater efficiency results. A sod plough will not do good work in soft stubble lands, nor will a stubble plough perform well in stiff sod.—From "Handbook for Farmers," published by the Commission of Conservation.

The Advisory Council for Scientific and Industrial Research of Great Britain has made special grants for the purpose of research into the questions of the use of better methods of heating and improvement in the ventilation of dwelling rooms, and of atmospheric pollution, the causes for producing it, its results on public health, buildings, etc., and the value of various means of counteracting it.

**Old Railway Ties
For Next Winter**

Investigation Shows Most Available Willing to Make Them Available

It is none too soon to take thought as to the means for keeping warm next winter. Lack of foresight in the matter of securing fuel caused much loss, suffering and inconvenience during the winter just passed, and it would be bordering on the criminal to repeat the blunder. From the nature of the situation, there can be no assurance of an adequate supply of coal coming from the United States. At the same time, the mines of Nova Scotia are facing a probable falling off in production for this year, coupled with a marked increase in consumption in the Maritime Provinces, Ontario and a portion of Quebec should, therefore, seek out every available substitute.

One possible substitute that is capable of more general utilization is worn-out railway ties. In many instances in the past, these old ties have been piled in heaps along the right-of-ways and burned. In the average year, the New York Central railroad destroys 1,750,000 old ties, an amount estimated to be the equivalent of 30,000 tons of coal. The N. Y. C. company has given instructions that all old ties be made available for fuel and it is obvious that the release of such an amount of wood will be a very important addition to the fuel supplies of the area traversed by their lines.

With a view to ascertaining what is being done with such materials in Canada, the Commission of Conservation recently communicated with the officials of a number of the leading Canadian railways. Replies from the Toronto, Hamilton and Buffalo, Quebec, Montreal and Southern, Quebec Central, Michigan Central, Grand Trunk Pacific, Grand Trunk, Dominion Atlantic, Canadian Pacific, Canadian Government and the Canadian Northern railways demonstrate that the former practice of burning ties on the right-of-ways has been stopped and that the employees of the companies and others living near the lines are allowed to remove old ties for fuel, under certain necessary restrictions.

Certain factors, such as the question of expense in collecting the ties and the scarcity of labour, must be taken into consideration in any attempt to extend the use of old ties for fuel. But a solution can be found for these and other kindred difficulties and the railways have indicated their willingness to co-operate to the fullest extent.—A.D.

Human reconstruction is one of the major tasks imposed by participation in the war.

FOREST PROTECTION ASSOCIATIONS IN QUEBEC, SEASON OF 1917

Name of Association	Area patrolled	Amount expended	Number of fires	Acres burned	Settlers' permits issued
Ottawa River—					
Eastern division..	8,446,400	\$22,004	108	8,871	1,181
Western division..	12,521,120	42,753	28	607	...
St. Maurice.....	9,049,645	32,564	217	4,341	1,406
Laurentian.....	7,586,344	20,541	52	2,340	...
St. Lawrence—					
Western division..	2,672,989	6,883	5	9	700
Eastern division..	4,089,511	11,748	48	320	1,952
Totals.....	44,366,009	\$137,093	453	16,488	5,239

City Boys on the Farm

Conditions Under Which The Work Should Be Watched

The draining of the country of labour available for farm work has attracted attention to the potential value of the boy in his 'teens' as a means of overcoming the labour shortage. For the past two seasons, many of these boys have undertaken farm work during vacation, and many have, by special arrangement regarding examinations, gone on the farm early in May or June. They have thus accumulated considerable experience of farm work, and should be of great assistance this year.

Better organization methods are required, however, than has been the case in the past. The boys do not come under the class of farm labourers; they belong to good homes, and volunteer for farm work only to help in the important campaign for greater production. In too many instances they have brought back with them from their summer work recollections which do not act as an incentive to undergoing further experience of the same kind.

Some form of registration and inspection of conditions under which these boys are placed should be made. Comfortable quarters and good meals should be available. These are necessary to growing boys. The hours of work should be limited, rate of remuneration should be a definite and clear-cut arrangement and they should be encouraged to learn farm work. In other words, the boys should be permitted to see the bright side of life on the farm as well as that which may not be so attractive.

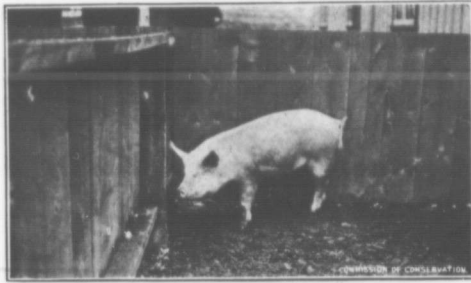
Canada is badly in need of men to cultivate her broad lands, and satisfactory experience on the farm during school life may induce many boys to follow the vocation of farming in later days.

MORE VARIETIES OF FISH SHOULD BE EATEN

The action of the Biological Board of Canada in publishing a series of pamphlets in a popular style, dealing with food fishes, is to be commended. The first of these pamphlets, entitled "The Canadian Plaice," was issued recently from the University of Toronto Press, and others in the series are to be published in the near future. Canada possesses a very varied fishery, but only a comparatively few species have been exploited and, in some instances, these have already been over-exploited.

DIED ON ACTIVE SERVICE

Private James Carroll, for some years a member of the staff of the Commission of Conservation, has been officially listed as "presumed to have died." Private Carroll enlisted with the Duchess of Connaught Irish Canadian Rangers and has been missing since August 15th, 1917.



NOW, BRING ON YOUR GARBAGE

Cut No. 170

Backyard Bacon

Have You a Little Pig in Your Backyard? If Not, Why Not?

An increase of 25 to 30 per cent in the number of hogs in 1918 as compared with 1917 may be confidently expected, the Dominion Live Stock Commissioner reports. This is a splendid response to the general appeal made to farmers to keep and breed extra sows, and to the conferences held during 1917 to further increase bacon production.

The farmers of Canada took this first step towards increased bacon production in the face of an acute feed situation. Many of them knew that they would not have enough feed to properly fatten all of their extra young pigs. These pigs must be fed and cared for, and many householders in Canada could help by keeping one or two pigs, which could be bought at weaning time, and fed during the summer, mainly on kitchen and garden refuse. In the autumn, the meat ration could be increased for the purpose of properly fattening the pigs for killing.

There are thousands of people around small towns, villages and settlements, at cross-roads and elsewhere, who could and should help in this matter. Do not allow kitchen refuse or garden weeds and waste to go unused. It is much less unsanitary to have a pig properly kept in a pen, away from the house, than to allow a dog the freedom of the house after he has been 'investigating' your neighbours' garbage. Here is an opportunity of service without sacrifice. It is past the time for doing our 'bit'—it is now time to do our 'best.' Get a place ready to keep a pig.—F.C.N.

GARDENS

Out of the garden and on to the table, without having to lie writhing in farmers' wagons from the day before or exposed for sale in shop windows! How much better our vegetables would taste, how much

more wholesome, and how many more would be eaten, if we had them growing in our backyard.

To cultivate a small patch is not a task—it is a pleasure, and the development of the crop is a study that is in itself interesting. Many who this year will cultivate that little piece of ground around their homes will be surprised at the amount of food which can be secured from a few square feet of land.

Canada needs your help in increasing the food supply. She needs men, she needs money, but what are men and money without food, and if, by the cultivation of only a small area, you can reduce the demand upon the general supply, it will be just that much a benefit to Canada.

Canadians eat too much meat. A greater use of vegetables would tend to better health for many. By growing vegetables, that they may be available during the summer months, many families will reduce their living expenses and be the healthier for the effort.

IS IT NOT CURIOUS?

A grade cow, eight years old, near Woodstock, Ont., that freshened last November, has given in eight months 13,092 pounds of milk, testing over 3.2 on the average, and having a spot cash value of \$288.57. She is still giving 34 pounds of milk a day, and is due in November again. Such a cow is a source of perennial pride to her owner, who weighs the milk from each cow he has, because he finds it pays.

But is it not curious that many dairymen never bother to weigh it, and so remain quite hazy as to each cow's performance? It is curious, too, that so many are content to bother with a herd not one of which has even a remote chance of giving one-half of what this fine cow gives in eight months.

Milk record forms will be gladly supplied free of charge by the Dairy Division, Ottawa, to any one enterprising enough to want to find out what each cow actually produces in return for all she eats. Make each cow pay. —C.F.W.

Sport with Knife and Fork

Or a New Way to Beat Germany

"Certain hotel proprietors from the Atlantic states, market hunters from Louisiana, and other devotees of sport with knife and fork, are advocating, as a food conservation measure, letting down the bars on the sale of game. Mr. Hoover, it is said, is being bombarded with patriotic telegrams from these gentry, telling him how to win the war by restoring Bobo white-on-toast and broiled mallard with-wild rice to the bill of fare of the poor starved gourmands who frequent their respective hostleries."

"A broiled mallard at \$3.00 per portion is truly a deadly weapon. It takes five shells at 5c each to kill him in the first place, together with the labour of the market hunter who ought to be sniping Germans or raising bombs. Then it takes ten pounds of ice and a snug corner in a freight car, a chef on a princely salary, and half a dozen flunkies to deliver his carcass f.o.b. the starving jaws of said gourmand for consumption. Finally, a pint of wine is necessary to make the poor fellow realize he is eating, a dollar exit fee to enable him to get away with his spoils, and not infrequently a doctor to tinker him into shape to starve along until the next meal. There is no denying the fact that said \$3.00 mallard might save a mess of terrapin or sweetbreads, or a lobster, or a fillet of beef for the French, and at the same time give highly profitable employment to many otherwise useful persons."

"It seems to us, however, that these double chained gentlemen who wish to avert starvation by marketing our slender stock of game have overlooked several other bets quite as good.

"Perhaps they have heard of cornmeal, or even oatmeal thereof. Well, if we are to eat our seedstock of game birds, how about the seed-corn our farmers are so unapologetically hoarding against the spring? And, for that matter, why not tear the lead roofs off of our public buildings and melt them into bullets? It might be possible for conservationists who have spent years of labour in saving for future Americans a little of our wild life to persuade these destructive patriots that their proposition is wrong, but it might be hard to convince them that it is also funny."

—The Pine Cone

CONSERVATION IN 1917

Conservation in 1917, the address delivered by Sir Clifford Sifton before the Ninth Annual Meeting of the Commission of Conservation, has been printed in pamphlet form and will be supplied on request. It is a comprehensive review of the progress made in the conservation of natural resources in 1917.

It is not so much money that Canada wants to prosecute the war as savings.