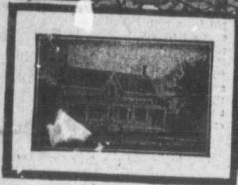


# FARM AND DAIRY & RURAL HOME



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BETTER FARMING  
AND CANADIAN  
COUNTRY LIFE



Toronto, Ont., January 24, 1918

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**130-Egg Incubator and Brooder for \$15.75**

If ordered together we send both machines for only \$15.75 and we pay freight charges to any R.R. station in Canada. We have branch warehouses in Winnipeg, Man. and Toronto, Ont. Orders shipped from nearest warehouse to your R.R. station. Hot water, double walls, dead air space between, double glass doors, copper tanks and boilers, anti-regulating. Nursery under egg tray.

shipped complete with thermometers, lamp, egg testers—ready to use when you get them. You can expect nothing less. Incubation starts in 24 hours. Incubator and brooder made of heavy galvanized iron and painted to corrode interior material! All in one unit, with other machines with others. Don't buy until you see it! Write for catalogue to see it! Remember our price of \$15.75 is for cash. If you want to buy on credit, we will accept the responsibility of fixing the price or dealing with the matter. Buttermen, too, have a grievance in oleomargarine. They dislike the cheese-men's remark: Mr. Stratton, "buttermen feel confident of being able to place the blame for this on the right man. The 'Food Control', and when you know how to do it, there was done over stir up anything but a feeling of cooperation with the said man." The president then traced the agitation for oleomargarine to its source, the big processors and observed in the manner in which the dairy interests were ignored by the Milk Com-

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### Western Dairymen Meet in Convention

Storms Delayed Trains and Reduced Attendance. Strong Stand Taken on Oleomargarine. Other War Time Problems Taken for Discussion

**THE** 61st Annual Convention of the Western Ontario Dairymen's Association met in the Grand Hotel at Stratford, Ont., on the 19th inst. with the weather as the trouble-maker. Railway traffic had been delayed for days, and even when the convention opened, many lines had not been cleared. This reduced attendance to small proportions from outside points, and bad country roads made a similar reduction in local attendance. There was, however, a fair attendance at all sessions, and the Association was enabled to express themselves on several war-time problems of interest to the dairy industry. A national aspect was given to the assembly by the presence of W. A. McKay, Dairy Instructor for Nova Scotia; Abe McKay, Winnipeg, and L. A. Gibson, Dairy Commissioner for Manitoba. The convention at Chatham, Ont., gave the international touch.

minite, of whom, only one member present represented the producers. Mr. Stratton, "to see it that the end of the war also ends the life of oleo in Canada. We feel sure that it is patriotic on that part that the dairy-men quiet, not wishing to embarrass the Government during the crisis of the war." His final words commended the start in butter grading, and stated that he had the opportunity to remedy the present wasteful and extravagant system of furnishing cream cans—the patron supply his own.

#### The Resolutions.

The thanks of the Association were tendered to the citizens of Stratford for their hospitality, to the numerous farmers who contributed to the price list of the dairy exhibition, to the speakers in attendance and to the press. The butter-grading service was endorsed and oleomargarine was dealt with in the following manner: "That this Association believes it to be in the best interests of both producer and consumer of dairy products, to immediately upon the conclusion of the war, rescind the present Federal Order-in-Council, which allows as a war measure only, the importation, manufacture and sale of oleomargarine in Canada and respectfully petition the Federal Minister of Agriculture to, through the Federal Government, again put into force the restrictions against oleomargarine as they appear in the Dairy Industry Act."

The question of cream cans is synthetically in the following resolution: "That this Association is in sympathy with any movement tending to

On the question of oleomargarine a strong ground was taken—that the restrictions be reimposed as soon as the war is over. The growing shortage of cream cans was taken as a good reason for asking patrons to own their own cans, in order that they may receive better care. The butter-grading system was endorsed again and again. The question of cheese prices, however, did not evoke the expected fire works, and definite action was not taken on it as at the previous convention. It had been hoped by many that steps would be taken to link up all of the Canadian dairymen's associations in a Dominion-wide organization, but this subject was not mentioned at all until the last hour of the concluding session, when Mr. McKay, of Nova Scotia, expressed his regret that some such move had not been considered.

"Whitleyites" at the W.O.D.A.

Every dairymen knows that with fair feed prices and fair labor costs, he can make more milk than he can on beef; the cow is worth three times as much as a milk producer as when turned into meat.

The French Government wishes to purchase one million cows for this continent as soon as the best prices of peace are made. This price will be obtained from these purchasers, who will ask for records of milk and fat production. The stage is being set for big business in which cow testing is to play a star role.

We have an Ontario law against a grade station; it is but a step now toward regulating such dairy farms. Our supreme engine are needed to-day. We cannot afford to fust and fritter with a 3,500 pound cow. Such owners appear adrift on an ocean of unbelief regarding true values.

A clear cut case of our record centres shows that extra feed, more clover and more meal, valued at \$600 given to 100 cows, produced over \$1670 worth more milk; an investment that paid 170 per cent.

The program was an "all-round" one covering almost every phase of the dairy farmer's activities, and from an educational standpoint, was one of the most valuable in the history of the Association. Many addresses were summarized here will be given in full in future issues of Farm and Dairy.

support the creameries in a change of business policy which will, under present conditions, discontinue the supplying of cream cans free of charge to cream shippers."

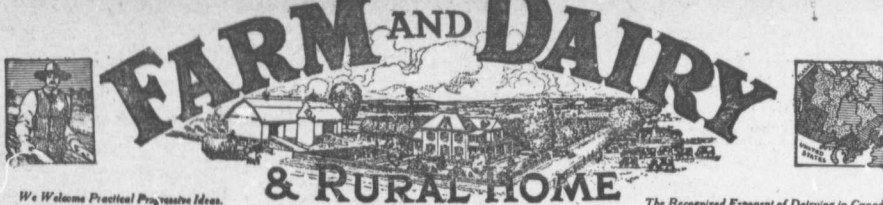
#### War-time Problems.

Some of the problems directly traceable to the war, were dealt with by Mr. J. A. Ruddick, Dominion Dairy Commissioner. Without penning as a substitute for a national council, about 75 per cent of the factories in the country would have closed. Even yet, however, the situation is serious. Even more difficult is it to get in sheets for milk cans and vats. An embargo has been placed on their export by the British Government, and all efforts to have it amended have failed. Manufacturers may get small relief in the United States. Mr. Ruddick suggested that wooden vats might be used. The main body of his address, however, was a defence of the sale of cheese through the Quebec Commission. He asserted that the price secured, 21 1/2 cents, was more than the British Government had intended to pay, and was more than they are now paying in New Zealand. He said: "One advantage of the method was that cheese was paid for on this side, and a cost of exchange, which would have amounted to 1 1/2 cents a pound, was saved. The price was 21 1/2 cents a pound, he thought, paid more than the market (Concluded on page 6.)"

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Trade increases the wealth and glory of a country; but its real strength and stamina are to be looked for among the cultivators of the land.—Lord Chelmsford

VOL. XXXVII

TORONTO, ONT., JANUARY 24, 1918

No. 4

# Suggestions on the Production of Butter and Cheese in 1918\*

We Need Better Cows—Cheaper Feed—More Labor—More Economical Use of By-Products and a Higher Price for Cheese

Prof. H. H. Dean, O. A. C., Guelph, Ont.

THE beginning of the year 1918 finds the world short on food and the people hungry as never before, because it is a peculiarity of humans that the shorter the supply of eatables in the cupboard, the more hungry we become. Particularly short is the supply of butter, more especially in Great Britain, where butter has been selling for as high as one dollar per pound during the past year. Fats of all kinds are scarce, milk-fat more than all others, because of the slaughter of cows and lack of labor to milk and care for dairy cattle. There is no substitute for milk-fat. The action that relies on vegetable and animal fats other than milk fat, especially for children, has taken the first serious step in physical and mental degeneration. However, I am to deal with practical suggestions on the production of butter and cheese for the coming season.

The first one is that old one of better cows, which is at the basis of all increased production of dairy products. In these times, farmers cannot afford to feed poor cows. While we may not be able to breed very many cows which produce 100 lbs. of milk or more in 24 hours and 20,000 lbs. milk in a year; or make four to five pounds of butter in a day and 1,000 lbs. in a year, the fact that we have a number of such cows, and stimulate breeders to greater efforts than ever to produce these phenomenal producers, thus increasing the world's supply of milk fat, without increasing the number of cows and at the same time we shall be conserving the supply of feed.

The organizations which are doing most to improve the dairy cattle of Ontario are the Records of Performance and the Record of Merit for purebred stock and the Caw Testing Association for the owner of common cows or unregistered stock. These, coupled with private records are making gradual though slow improvement in the milk cows of Canada.

## Cheaper Feed Essential.

The second suggestion which, like a good appetite, always remains with us, when in a healthful condition, is to secure more and cheaper feed for butter and cheese production. Cheap and abundant grass, softage, silage and root crops, with a reasonable quantity of grain and by-products, such as bran, oil cake and condensed meal are essential for increasing the production of butter and cheese. Liberal feeding of the right kind of feed is essential for increased production. Unfortunately the feed problem on many farms is acute. With the present price of grain and millfeeds the temptation is to lessen the quantity of these to a point below what is required for profitable production in winter time, as a certain amount of concentrated feed is essential along with roughage, to produce milk in large quantities. Large producers require about one pound of meal for three to five pounds of milk produced. The great importance of cheap feed is realized when we consider that approximately one-half the cost of producing milk is for feed.

## The Labor Problem.

The third practical suggestion relates to a very acute problem on dairy farms, at the present time, namely, the labor problem. No class of farmers have been hit so hard as have dairy farmers in the present condition of labor. Many have sold their herds of dairy cattle and gone into other lines of farming because of help shortage. This condition is likely to continue for some time. The remedies which have been suggested are, to buy more dairy machinery, such as tractors, milking machines and cream separators; utilize women help; import foreign labor; conscript labor; and grow more help on the farm.

\*An address before the recent Experimental Union Convention.

Not only is there a shortage of skilled labor on dairy farms, but the creameries and cheese factories of Ontario are like, to be short handed for 1918. This latter is fully as serious as the help problem on the dairy farms. Without our factory system of manufacturing butter and cheese, milk would be a drug on the market. While it is true that a considerable quantity of butter is still made on Ontario farms, and also some cheese, the quantity is lessening each year and likely to be markedly so from now on, as poor dairy butter will have to compete with ocomargarine and will have to be sold at imitation butter prices.

Labor demands may be summed up in six words—short hours, easy work, big pay.

## Cheese Prices Must Advance.

If we are to increase or even maintain our present cheese output, the price of cheese must advance over the prices allowed by the Cheese Commission of 1917, which was 21½ cents per pound for grade one cheese, at the port of Montreal. We have no hesitation in saying that there is no other near its food value as compared with the prices paid for meat and other protein carrying foods. The competition from milk condenseries is driving the cheese factors to the wall. Both patrons and manufacturers of cheese are having a serious time and something must be done to relieve the situation or our cheese trade, the result of over half a century of fostering care, will be out of existence in a few years. Some claim that the present condensed milk boom is only temporary. A leading American dairy journal recently said:—

## The Food Situation

THE food situation in the Allied countries of western Europe is graver than has been at any time since the beginning of the war. Information has been received by the Food Controller which shows that the utmost effort must be made to increase spring acreage and to secure a much larger production of bread grains in 1918 than was done in 1917. Mr. Hoover has already pointed out that if ships have to be sent to more distant countries to carry food stuffs to Europe, fewer ships will be available to carry soldiers and supplies from this continent, with a result that the continued participation of the United States and Canada in the war will be greatly hampered.

The situation has been thoroughly canvassed, and among those who have studied it, there is unanimous agreement that the only solution of the food problem is greater production in North America. In this connection it is especially important that the spring acreage sown in bread grains should be as large as it can possibly be made.

Every person who can possibly produce food must do so, no matter how small his or her contribution may be. Those who cannot produce food, can be considered as consumers. The utmost economy is imperative. The situation today is critical and the world is rapidly approaching that condition when price will not be the most important question, but when even the people of Canada may be glad to eat any food which they can obtain.

The successful prosecution of the war by the Allies will depend to a very large extent upon the extent of food production and food conservation this year by the people of North America.

"We have no food product to-day that is in such great demand for export as is condensed milk, and the manufacturers can afford to pay prices for it that will drive the creamery and the cheese factory, with which the condensery competes, out of business. . . . One creamery has put in a part of a condensing outfit, and is selling the condensed product in bulk to another condensery which is canning it."

If the condenseries are allowed to pay the high prices which have prevailed during the season of 1917, then cheese manufacturers must receive at least 26 cents a pound wholesale for number one quantities paid \$2.85 per 100 lbs. for milk testing 3.5 per cent. fat for the month of November, 1917, and \$3.50 per cwt. for four per cent. milk. Milk testing 3.5 per cent. fat will make about nine and one-half pounds of marketable cheese per 100 lbs., and four per cent. milk about 10 1/3 lbs. cheese per cwt. One hundred pounds of three and one-half per cent. milk made into cheese which sells for 25 cents per pound would be worth \$2.17½, which means that 17½ cents would have to be realized for the by-product whey which is practically impossible if fed to calves or pigs. There is also the cost of manufacturing which would amount to 19 cents at two cents per pound of cheese. We can readily see that the cheese patron and cheese manufacturer are badly handicapped when competing with condenseries under present arrangements. It is not too much to say that number one cheese should sell for as high a price per pound as does number one beef or bacon.

The new slogan regarding prices to be paid for farm produce is, "Cost of Production, Plus a Fair Profit." Whether this is obtained by means of Government regulation or through cooperation and organization among farmers, makes little difference, but this principle carried into farm practice, means a new era in agriculture.

## Manufacturing the By-product.

While live stock would no doubt suffer considerably if there were neither skim-milk nor buttermilk for calves and pigs, the fact that from 12 to 15 pounds of edible food, highly protein in character, may be made from 300 pounds of these by-products whereas it requires from 25 to 30 pounds skim-milk or buttermilk to produce a pound of calves or pigs, we see that considerable human food is lost by feeding these to pigs instead of converting them directly into food for humans. Assuming that a pound of skim-milk cheese is equal in food value to a pound of gain in pigs, 100 lbs. of skim-milk or buttermilk converted into cheese would be three as economical in the production of human food as feeding hogs on these by-products and by many would be considered cleaner and pleasanter work. Whether or not the consuming public is of this opinion remains to be tested.

To sum up—in order to increase the production of butter and cheese for 1918, more cows and better cows are needed, more and cheaper feed, more labor on dairy farms and in factories, or its equivalent in machinery, higher prices for the cheese produced in 1918, than was paid in 1917, and the manufacture of larger quantities of dairy by-products into palatable, digestible, merchantable food products for direct human consumption, rather than, through the agency of animals by which latter process a large part of the energy value and protein compounds of skim-milk and buttermilk are lost.

The opposition to Chinese labor on the farms or in the factories of Ontario is overwhelmingly strong. This province is going to remain white. Toronto Globe.

## Fitting and Feeding for Test Work

Fitting is Important and a Good Start is Half the Battle—A. D. McDannell, Mgr. Dodge Farms, Conn.

THE man who is hoping to make large records must first of all have a cow with productive ability, capacity and dairy individuality. Feed, time and patience are essential, but above all is the ability to understand limb animals with their likes and dislikes. I think all feeders will agree that cows differ as much physically, and in disposition, as do people. If a cow is at all thin, as the good ones are likely to be, three months will not be too long for proper fitting for the seven-day test, yet some cows will get in much less time. It is sometimes difficult to dry up a cow so long before freshening, and lack of care at this time may cause undue troubles that will produce permanent effects.

The most important part of test work is in the fitting, and the essential thing here is proper feeding. Care must be taken that a cow does not get too much feed, for a cow once "off her feed" never quite comes back. Still she must be fed to full capacity. If the best results are to be obtained. The rest from feed which she gets while drying off, followed by a few days of light laxative feed and perhaps a few small doses of salts, will be beneficial. When they are dry, begin feeding a light ration of grain, consisting of equal parts of bran, ground oats, hominy and oil meal. Begin with 8 or 10 pounds daily, gradually increasing the amount till she is working at full capacity. Here is where the feeder must use his judgment. Watch her closely and do not wait till she refuses feed before cutting down on her grain. A look at her eye will tell the experienced feeder whether or not she is feeling right.

### Quarters for the Cow.

A roomy box stall with plenty of clean bedding, sunlight and fresh air, with water and salt always at hand, are all that are needed. Cleanliness and good advantages does not need much. If any, outdoor exercise. It is the general opinion that she will put on a softer fat without the exercise. Remember to water the cow. Just as too much grain reduces the milk flow, so will it interfere with the laying on of fat and, besides, it may overwork the digestive machinery and cause a setback in the normal and consistent improvement essential to success. As a rule, salts and tonics are unnecessary, and used indiscriminately are useless and even harmful. Powdered charcoal is often helpful, but not necessary. If a cow needs a tonic and can be kept going with its help, by all means give it. Epsom salts is always a safe prescription, and should be followed by a veterinarian's prescription for that special cow.

### The Last Month Before Freshening.

The last month before calving feed her four times daily. Before any signs of serious inflammation of the udder show, change her feed to a mixture of bran, oats and oil meal. Watch her more carefully than ever taking particular care to keep her appetite good. Keep her out of drafts at calving time and blanket her if the weather is at all cool. Let her have all the water she wants and as hot as she will drink it. Give her bran mash the first three days after calving, then a few of the bran, oats and oil meal mixture. She will tell you how much and how long to feed before changing to the ration to be fed during the test. Do not make this change too suddenly, and be guided by the condition of her udder, her appetite, amount of milk given and general condition.

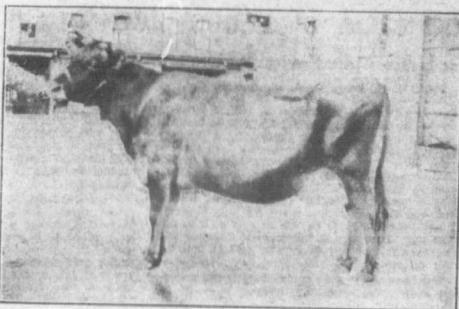
### For Yearly Work.

For semi-official work, give a cow considerable outdoor exercise while fitting and feed any good dairy ration, varying it, of course, as the individual demands it in the preliminary preparation. The idea is not to get so much soft fat as for a seven-day test, but to get the cow in a strong, vigorous and hearty condition as possible. Remember she has to run 305 or 365 days and not for seven only. The same treatment applies at calving time as for the seven-day test, except that a little more time can be taken in getting her on full feed. A big start is a help, but, like driving a race horse, a cow must not be pushed too fast at the beginning for there is danger of overdoing it and losing out later. The

cow on semi-official work will need her feed very carefully analyzed all through the year. And again: watch her.

### An Example of Overfeeding.

I could give several examples of overfeeding. One cow in particular was nearing the finish of her year's work. She was cleaning up 18 pounds of grain daily. The amount of milk varied from one pound to as much as 12 pounds a day, so I knew something was wrong. After trying different feeds with no good results, she was given the original feed and the amount reduced one-half pound daily, till she was getting only 14 pounds a day and giving more milk than when eating 18 pounds of grain. Feed was



Mabel of Edgeley, First in her Class at the Ontario Provincial Winter Fair. She is owned by J. H. Rogers & Sons, Ealing, Ont. During the three days of the test she produced 184.4 lbs. of milk, testing 4.8 per cent butter fat, and scored 239.241 points. She is a strong, deep bodied cow with a well balanced, capacious udder—the kind of Jersey from which one would expect Jarze production.

carefully increased to 16 pounds a day, when she gave 52 pounds of milk a day. She did not vary a pound a day for the rest of her year, and finished up giving 52 pounds a day.

If too much feed affects a milking cow this way, it seems reasonable that too much is also bad for a cow being fitted. Enough, cow, enough appetite. Finally, let me say to the young breeder: get at it. It pays—adddress delivered before Western Connecticut Holstein-Friesian breeders.

## Experience With Fertilizers

A Quebec Farmer Has Found Them Profitable

John W. Alexander, L'Assomption Co., Que.

MY first experience with commercial fertilizers dates back to the memorable year of 1914, when I was persuaded by a representative of the "German Polish Syndicate," of Toronto to try

an experiment with an artificial fertilizer. The company was to supply the amount of fertilizer needed free of cost, and I followed out directions to the letter. One acre of land was divided into three equal plots of a third of an acre each, and the three plots were to receive the same amount of manure, and also the same cultivation during the season. About 10 spreader loads of 40 bushels capacity were applied per acre.

Plot No. 1, no fertilizer applied.

Plot No. 2, complete fertilizer consisting of 120 lbs. acid phosphate, 40 lb. nitrate of soda, and 55 lbs. sulphate of potash.

Plot No. 3, acid phosphate and nitrate of soda in same proportions as No. 2, but no potash.

Although the season

was unfavorable, being very dry and hot, which affected the sprouting of potatoes, the results were surprising. Plot No. 1 yielded 54 bushels, most of which were unmarketable as they were small and scabby. Plot No. 2 yielded 75 bushels of fine large-sized tubers with very few small ones. Plot No. 3 yielded 57 bushels not much better than Plot No. 1.

This experiment showed me very conclusively that fertilizers pay if you use them in an intelligent way and that for potatoes it takes a fertilizer high in potash content.

In the same year I determined to discover how effective a cheaper grade would be for corn, and accordingly purchased a 2-5-2 fertilizer and applied 350 pounds per acre when planting the corn. This was put on with the fertilizer distributor attached to the corn planter and dropped right in the drill, but not touching the corn. A light dressing of manure had been put on the land and well worked into the soil.

The results were very satisfactory. Some few drills were not fertilized and they were noticeable all through the season, and when the corn was cut there were from 8 to 10 bundles less per drill than where the fertilizer had been applied. Although prices of fertilizer have advanced very much I always make it a point to have it on hand when corn planting time comes as I always find that it shows up on the yield and hastens growth; also you are fully assured of a good catch of clover when that field is seeded down.

I would advise every farmer to make a trial on his own farm and find out the grade best suited to his particular soil. Our soil varies from heavy clay to sandy loam and wherever I have used it the results have been satisfactory.

## Alfalfa Growing in Quebec

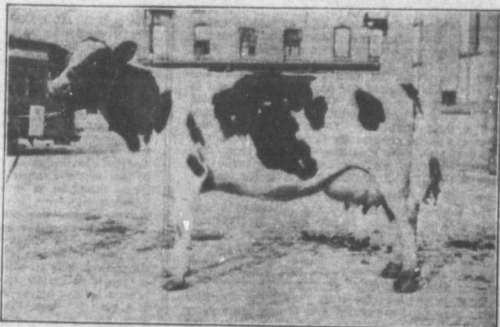
Success With the Grimm Variety

A GROUP of dairy cattle breeders of the Province of Quebec were discussing with an editor of Farm and Dairy the suitability of alfalfa to Quebec conditions at the time of the last Ormstown show. The general verdict seemed to be that alfalfa was not a suitable crop for Quebec farms. When the group had dispersed, a stranger who had overheard our discussion came forward and offered his experience with alfalfa. He proved to be K. McRae, manager of the big farm owned by L. J. Carte, south of Montreal.

"Two years ago this spring," said Mr. McRae, "we seeded a considerable acreage to Grimm alfalfa. It was sod land not properly prepared and we used barley as a nurse crop. Last year we cut two crops of alfalfa, running about four tons of hay to the acre and pastured the last crop with the calves. The crop came through this last winter in excellent condition, except where some grass had crept in. I am convinced that under our conditions at least, alfalfa can be grown successfully in Quebec."

"And how about the feeding of the hay?" Mr. McRae was asked.

"We fed it principally to the calves," said he. "Some of it we ran through the straw cutter, mixed with bran and fed to the chickens. Two brood sows also got liberal rations of alfalfa hay. In all cases it proved the best roughage on the farm. In fact, our calves got no grain at all, just alfalfa hay, corn ensilage and roots and they are well grown and thrifty. We think so much of the crop that we seeded down more this spring, but this time without a nurse crop."



She did the Best of any Pure Bred Holstein in Quebec.

Rosa Mercena DeKok, owned by H. C. Hanner, Norwich, Ont., was first in the Holstein cow class. Her production for the three days was 211.1 lbs. of milk and her score 252.814 points. For her breed she is not a large cow, but she is of good type and conformation.

Photo by an editor of Farm and Dairy.

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A Manitoba Method of Wintering Stock that Calls for a Minimum of Labor and Building Investment.  
—Photo Courtesy Immigration and Colonization Dept. of Manitoba.

## Some Practical Suggestions on the Production of Spring Wheat

The Importance of the Crop Itself—Selection of Seed and Dates of Seeding as Discussed by Dr. C. A. Zavitz at the Experimental Union Convention

WHEAT is used more extensively as human food than any other cereal. It is particularly rich in nutritive constituents and no other grain except rye contains a gluten which is capable of expanding and forming light porous bread. Wheat can be easily grown, economically transported and readily stored when necessary. Canada has a wonderful opportunity of doing a tremendous service at the present time in producing wheat for export.

The acreage of fall wheat in Ontario was considerably below the average in 1917 and owing to unfavorable weather conditions last autumn the area of winter wheat is about the same this year. It will be necessary, therefore, to depend upon the spring wheat for any increase in acreage. In 1917 there was an increase of spring wheat over the previous year of approximately 38,000 acres.

According to recent estimates the normal annual consumption of wheat in Ontario is about 13,000,000 bushels, and the production in 1917 was about 17,000,000 bushels. The amount of surplus wheat in Ontario in the past year was, therefore, approximately four million (4,000,000) bushels. It will be seen that by increasing the wheat production 25 per cent. the amount of wheat available for export is thus increased by fully 100 per cent. An average yield of winter wheat in Ontario in 1918 is expected to be sufficient to supply the people of Ontario under normal conditions. The amount of wheat available for export from this Province during the next year will, therefore, depend largely on: first, the economy on the part of the people in the use of winter wheat, and second, on the coming season's production of spring wheat. The importance of increasing the spring wheat crop of Ontario in 1918 seems evident. In order to bring this about I wish to emphasize four points, viz.: 1, increase in acreage; 2, sowing the best variety; 3, using seed of high quality, and 4, sowing at the right time on a suitable seed bed.

**Increase in Acreage.**  
The average annual number of acres of spring wheat for the six years, from 1883 to 1888, inclusive, was 626,104, and for the six years, from 1912 to 1917, inclusive, was 141,570. The average yield per acre per annum for the first period was 15.5 and for the last period 18.4 bushels. According to the reports of the Bureau of Industries the acreage of spring wheat in this province has decreased more or less gradually from 779,463 in 1885 to 182,967 in 1917. In connection with this it is interesting to note the average annual yields of spring wheat per acre for Ontario for the past thirty-six years when divided into periods of six years each, are as follows:—

Period of Six Years.	Average Bushels of Spring Wheat per acre per annum.
1882 — 1887	15.5
1888 — 1893	15.0
1894 — 1899	15.7
1900 — 1905	17.8
1906 — 1911	17.4
1912 — 1917	18.4

It will be seen that the highest average yield per acre was for the last six years. It may be a surprise to many of the farmers of the province who have had the impression that the production of spring wheat in Ontario has been a failure in recent years to know that the average annual yield per acre of spring wheat for the past three years has been greater than that of any three consecutive years from 1882 to 1914. Some of the highest yields in spring wheats during the past five years have been made in some of the counties of both eastern and western Ontario and in some of the districts in the northern part of the province. Under the circumstances it seems reasonable to conclude that the acreage of spring wheat in Ontario might be advantageously increased to a considerable extent.

### Sowing the Best Variety.

According to the results of cooperative experiments and the experience of farmers throughout Ontario, good returns have been made by both the wild Goose and the Marquis varieties of spring wheat. The average yield in bushels per acre for the last five years has been 20.2 for the former and 19.0 for the latter. As the Marquis variety of spring wheat is not only a good yielder but is also a wheat of excellent quality for bread production it will likely be used extensively for seed purposes in the coming spring.

Not only is it important to sow a good variety of

spring wheat, but it is also exceedingly wise to use seed of the highest quality. In an experiment which was conducted for eight years in sowing different selections of seed of spring wheat some interesting results were obtained. The following shows the influence of one season's selection of seed repeated for eight years:—

Selections.	Weight per Measured Bushel (pounds)	Average Yield per Acre per Annum.	
		Tons of Straw.	Bushels of Grain by Weight.
Large plump seed	59.1	1.4	21.7
Small plump seed	58.3	1.3	18.0
Shrunken seed...	56.9	1.2	16.7

This shows that large, plump seed sown can increase over small, plump seed of about 20 per cent. and over shrunken seed of about 30 per cent. It is exceedingly important to use sound seed of strong vitality in order to get the highest returns.

**Sowing at the Right Time.**  
In an experiment conducted at the Ontario Agricultural College in each of five years, spring wheats were sown at six different dates in the spring, starting as early as the land was in a suitable condition for cultivation and allowing one week between each two dates of sowing. The experiment was conducted in duplicate each year. The average results of the ten tests conducted in the five years are as follows:—

Seedings.	Weight per Measured Bushel (pounds)	Yield per Acre.	
		Straw (tons)	Grain (bus.)
First .....	60.1	1.2	21.0
Second .....	59.6	1.1	19.2
Third .....	59.0	1.0	18.4
Fourth .....	58.9	.9	15.0
Fifth .....	56.5	.6	8.4
Sixth .....	54.0	.8	6.7

It will be seen that for best results it is of great importance to sow spring wheat as early in the spring as the land is suitable for cultivation. According to the results of the experiment a delay of one week made a decrease in the yield of 2.7 bushels per acre or of fully 12 per cent.

By sowing at the right time on well prepared land the best seed obtainable of the Marquis wheat, the increase in production would be surprisingly great and the available amount for export might be easily increased many fold.

Reports concerning clover seed are not favorable in the main, says a bulletin of the Ontario Department of Agriculture. The crop at one time promised well for seed, but rains delayed cutting, and early frosts did so much injury to the heads that many fields were put to pasture.

### Bacon Production

By Prof. G. E. Day, Guelph, Ont.

AT the present time a strong plea is being made for increased bacon production. There are several reasons why hogs are especially important in times like these, and the following may be noted:—

- (1) Hogs multiply rapidly, and mature quickly, so that they offer the quickest means of increasing the world's supply of meat.
  - (2) Hogs produce more meat from a given amount of food than any other domestic animal.
  - (3) Hogs give a greater weight of dressed carcass in comparison to live weight than any other animal.
  - (4) The carcass of the hog contains more edible meat in proportion to bone than that of any other animal.
  - (5) Pork and bacon contain a large proportion of edible fat, which is vitally needed in the rations of soldiers.
  - (6) Bacon is perhaps the most compact form in which meat can be shipped.
- It will be seen, therefore, that the hog is bound to play a very important part in rationing our armies and those of our allies.

## Western Dairymen Meet in Convention

(Continued from page 2.)

**TOP DRESS**  
All Crops with  
**Nitrate of Soda**, no matter what other fertilizers you may have used—100 pounds per acre for seeded crops and 200 pounds per acre for the cultivated ones. The increase will yield large profits over cost.

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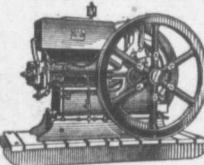
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justified, and the producer got all there was in it.

The price of condensed milk, Mr. Ruddick contended, was not due to the fixed price of cheese. The demand is so great that the condenseries would have gotten the milk no matter what the price of cheese. The world-wide market for the product, too, makes its control almost impossible. In the course of evolution certain cheese factories are bound to go out of business when near condenseries. It would be regrettable, however, if, after the war, the cheese factories were discontinued and the demand for milk at condenseries should fall off, and the speaker urged that cheese factories be supported. Another change due to the war is that while cheese has increased, and next year no colored cheese at all may be made in Canada.

Mr. Ruddick placed the exports of Canadian cheese this last year at \$37,644,850, or about 2,866,000 boxes of cheese. Taking home consumption into consideration, the make was probably about the same as in 1916, and exports showed a slight falling off.

Cheese Price Discussed.  
When Mr. Ruddick sat down the discussion started. Mr. Jas Donaldson, the chairman, as president of a large cheese factory, voiced his opinion that

Association should be willing to cooperate with the E.O.D.A. in placing the situation before the Minister of Agriculture.

#### The Rural Survey.

What are the factors that make for success or failure of the farm business? The answer is best given in the results of rural surveys, such as the one conducted in Peel County last fall. Mr. Archie Leitch, who conducted the survey, reviewed his work as at the Experimental Station, reported in Farm and Dairy last week. Results have now been compiled from 87 farms, as compared with 90 farms a year ago, with no change in general deductions. The labor income, what the farmer has left after paying five per cent on his investment, all running expenses, and a reasonable amount for labor done by the family, varies according to the size of the farm as follows:

Size of farm.	Number of farms.	Labor income.
Under 85 acres	32	\$ 408
86-100 "	15	811
101-150 "	14	1,074
151-200 "	1	1,611

On the whole, Mr. Leitch believes that the small and large farms would average about the same in quality of live stock, and yields per acre; size,

### The Dairy Industry in Western Ontario

Some Gleanings from Chief Instructor Hems' Report.

15,000 patrons (716 less than 1916) supplied milk to 140 cheese factories. Percent fat in milk was 3.26 per cent, (3.8 per cent. in 1916). The price received in 1917 is the highest on record, an average of over 21 cents a pound.

With the exception of a couple of weeks in July the quality of the cheese was well maintained.

Ten more cheese factories paid by test than in 1916. Inspectors tested 2,857 samples of patrons' milk at cheese factories. Of these 2,118 tested 10 per cent. or under, and only 119 four per cent. or over. 102 samples tested as low as 2.6 per cent.

#### THE CREAMERY REPORT.

Butter prices were the highest on record; estimates, however, indicate a decrease in the output of about 12 per cent. compared with 1916. Quality was well maintained, but some butter developed flavors in storage. 38,982 patrons supplied cream (28 per cent. fat) to 127 creameries and 38 cream buying stations.

The average moisture in butter was 14.75 per cent.; 67 samples from 29 creameries tested about 12 per cent. moisture. Thirty-two creameries (7 more than last year) pasteurized. Eight creameries great cream for churning, and one paid for cream by grade.

"The point has been established that a grading plan is practicable in Western Ontario conditions, provided the service is supported by the creamerymen and dealers of the province.  
"It is likely that a class for 'special' scoring 94 points or over will be adopted for next season in connection with the grading system, but a provision will be made for this grade that the cream must be pasteurized."

there was much room for improvement in the present situation. A factory owner, Mr. Frank Hoyes, stated that it was his understanding that condensed milk and milk powder were purchased by the Allied Governments' buying commission at New York and if our Government can do anything through them to regulate prices it should do so. Mr. Thos. Ballantyne, of Stratford, felt that the dissatisfaction was not so much with the price of cheese as with the difference in price, and perhaps this could be regulated. Mr. Ruddick explained that central buying is a recent development, and even if our Government were bidding against each other for condensed milk.

Prof. Dean thought the question to be asked was whether the Western Association join with the Eastern Association in sending a delegation to Ottawa to urge an increase in the price of cheese. Mr. Ruddick stated emphatically that a number of delegations would influence the price one iota. He said he knew just what the situation was, "Don't worry about the price," was his counsel. "Your interests will always be in every possible way." He suggested that with the situation as serious as it is we don't know whether we can sell our cheese at all or not. There is not even a cheese commission appointed for this year. "No resolution resulted from the discussion, but the opinion was expressed and applauded, that the

therefore, was the controlling factor in the labor income. The advantages of size were summarized as more capital invested productively, and more acres worked per horse and per man.

#### A Talk on Crop Production.

Prof. C. A. Zavitz, of Guelph, enumerated five points in which progress can be made in crop production: Better seed, better cultivation, underdrainage, more fertility and a better planned rotation of crops. The first can be accomplished without any extra expenditure of labor. Multiplicity of varieties is a weakness. The speaker stated that as many as 60 different varieties of potatoes have been mentioned and might extensively grown in different districts. In the township of Caradoc, where one variety, the Dooly, is specialized in, potatoes of uniform quality are shipped in car-load lots. Sixteen to 18 varieties of oats are grown extensively, but the tide is toward O.A.C. No. 72, even as it has already gone to O.A.C. No. 21 barley. For the bean crop, Prof. Zavitz made a special appeal. Ontario is right in the "bean belt," the demand is certain to keep up and prices will be high.

In the matter of crop rotation, the Professor advised such an arrangement of crops that each would be a preparation for the crop to follow. For instance, corn prepares the soil especially for green manure, and the use of oats will be avoided for fear of injuring the stand of clover, and add

plowed down is ideal for corn again. A good word was spoken for the mixed grain crop: a bushel' each of oats and barley by weight is still the heaviest yielder. A man who asked about the addition of a little wheat, but was assured that a reduction in total yield would surely result. Finally each farmer was urged to select a few good ranged roots from which to grow his own manure seed next year.

#### The Premier Speaks.

Premier Borden was the principal speaker Wednesday evening. As acting Minister of Agriculture, he devoted the most of his address to a review of the work of that department.—"Butter and good marketing and educational work. He appealed for greater sympathy between different classes of the community, and expressed his regret that efforts of town people to aid in production had not always been kindly received. Speaking of the farm labor problem, the Premier promised more returned soldiers for farm work and said that his class will operate the 130 Government tractors. He reiterated the suggestion that Chinese coolies be imported with these words: "I do not believe that they would do effective work or that they would be desirable."

An appeal for greater production concluded the Premier's address. "Farmers hold the line in the trenches," said he. "Failure in the second line, means disaster in the front line as well."

#### Butter Grading Endorsed.

"I can see nothing anything more satisfactory to a creamery owner," said Mr. W. Waddell, of Kerwood, after Mr. Scott had given his report. "I can't have every churning and butter secured by a capable, efficient and disinterested man, appointed for this purpose. . . . It provides a medium for the sale of butter as between buyer and seller. The owner can sell his butter and ship it forward in confidence that he will get a square deal, which he otherwise sometimes doubts." In one case Mr. Waddell shipped 85 boxes of butter. The buyer insisted on classing it as second grade and reducing the price a cent a pound. Fortunately the butter had been scored by Mr. Scott as No. 1, and payment was made accordingly. In the grading system, he said, results in more careful factory work, and will in time lead to some kind of a cream grading system, as in the factory owner. Mr. Waddell strongly advised all to come in on the grading system.

#### After Waddell.

Speaking of the grading system from the standpoint of the dealer, Mr. J. W. Steinhoff, of Toronto, said that the work had resulted in decided benefit to the creamery interests. He regretted that he could not do otherwise, and urged the quality of Western Ontario butter. He suggested that creamerymen should go further and sell their butter on grade rather than try to get on a price for all that he thought, had been rather liberal in his grading. In some instances, when butter was held, it did not score up to the grade assigned it. A weekly auction sale graded butter Toronto was suggested, similar to the auction sales of Quebec butter in Montreal.

#### Rennet Substitutes.

Pepsin, used as a substitute for rennet extract, had resulted in good cheese, but an excessive loss of fat in the whey. Mr. Geo. Barr, Dairy Branch, Ottawa, has been conducting experiments at the station, and this loss cannot be avoided. His results, as told to the convention, indicate that "setting the milk at a temperature slightly under 86 degrees, with a sufficient amount of pepsin, will allow the milk ready to cut in less than 30 minutes gave practically as good results in the whey as when rennet extract was used." But Mr. Barr added, "It was not surprising to observe a greater skill on the part of the cheesemaker to make cheese successfully with pepsin than with rennet extract." Experiments were also conducted at Flinch with "Acetolase," and it was found that the addition of two ounces of

"Actinolase before each quantity to cut in minutes; do not cut in the full pepsin, not affect coagulants. Barr felt of safety, lated the on the g not a sig

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The finan line of 1917. Cash on Mem bers for Donative for Sale of dead Advertising gran Miscellaneous

Tota Cash paid for butter \$50.00 petition Pro-Sternochei rector's Post

Printing, \$107.50 July-1917. Periodicals for Cost of reports Purchase of Office and sup. June 1917. express charge; Mail fees in Andrews' Pr

"Actoids" per 1,000 lbs. of milk just before setting and then using the usual quantity of peppin, time from setting to cutting was lessened six or seven minutes; or the peppin may be reduced one ounce, and the curd will set in the same time as "Actoids" did full peppin ben use. "Actoids" did not affect fat in the whey, and should coagulants become very scarce, Mr. Barr felt that it could be used with safety. In concluding his congratulatory remarks to the cheese-makers of all Canada on the good cheese made this season, he noted a single complaint coming from the other side.

Mr. Fredrickson, manager of Hansen's Laboratories, Little Falls, N. Y., told the meeting that supplies of potash would be plenty secured, and that there would be very scarce, but the situation is better than at any time since the war began. Before the war 50,000 rennets were saved in America. Last year there were 1,500,000 rennets saved, but only 100,000 in Canada. He urged that all milk-fed rennets in Canada be carefully saved.

Why Prices Advance.

Prof. Dean was asked to explain advancing prices for dairy products, and in doing so he said he felt that he was attempting to "unscure the inscrutable." Some of the factors mentioned were advancing labor costs, higher prices for cows, equipment and feed. In the latter instance, the speaker stated his belief that the farmer is justified in selling his cows if he can't get market prices for the grain and fodder he feeds them. Other factors are higher interest rates on loans, expensive factory operations and more stringent regulations of boards of health. "And even yet," said Prof. Dean, "milk is a cheap food. Other dairy products are cheap. It is the duty of this association to help educate the public to an appreciation of these facts." This address will be published in full in a later issue of Farm and Dairy.

The Dairy Herd's Competition.

The herd's competition reached a very low ebb this year; there was only one entry in each class. In the cheese patrons' section Purley Bros., Lambeth, entered 16 grade cows that produced an average of 4,912 lbs. of milk per cow in the factory season. In the creamery section Allan C. Halman, of New Dundee, entered 16 grade Holstein and Shorthorn cows with an average output of 123 lbs. of fat per cow.

Election of Officers.

President, Jas. Donaldson, Atwood; 1st Vice-Pres., Frank Boyes, Dorchester; 2nd Vice-Pres., W. G. Medd, Woodham; 3rd Vice-Pres., Jno. Scott, Inverkip; Executive Committee, W. H. Stratten and others. All of the old directors were re-elected.

Financial Statement.

The financial statement for the Province of Ontario for the year ending Dec. 31st, 1917, is as follows:

Receipts	
Cash on hand from 1916	\$ 469.84
Members fees	11.00
Legislative Grant	2,000.00
Money received from prosecutions	547.50
Donation for special prize	50.00
Sale of dairy exhibits	2,934.16
Advertising in communication program	155.00
Miscellaneous	3.45
<b>Total</b>	<b>\$6,470.95</b>
Expenditures	
Cash paid for—cheese and butter \$113.00, Canadian Salt Co. \$50.00, Dairy Herd Competition \$10.00	\$ 173.00
Printing Convention	472.00
Steno-graphers salary	134.70
Directors expenses	335.50
Postage and telegrams	99.81
Printing, \$262.25; advertising, \$107.65	569.87
Judges fees and expenses	45.50
Prosecutors salary and expenses	273.75
Periodicals for members	223.50
Cost of reporting	80.00
Purchase of dairy exhibits	2,923.73
Office rent, light, cleaning and sundries	224.54
Office rent \$129.00; office furniture \$95.54	224.54
Telephone	171.45
Express and cold storage charges	154.00
Half fines paid to factories	373.76
And Other Fees	15.00

Repaid to members	1.00
Legal Fee	5.00
<b>Total</b>	<b>\$6,133.83</b>
<b>Balance</b>	<b>\$332.15</b>
	\$6,465.98

The Dairy Exhibit.

A fuller report of the cheese and butter exhibit will be given in Farm and Dairy next week, up to date of publishing the print line had not been made public. The sale of exhibits resulted as follows: 65 large cheese, at 21½¢; 16 flats, at 21¾¢; 9 stilltons, at 24¾¢; 12 boxes, winter creamery butter, at 45¢; 14 boxes, October butter, at 45¢; 240 lbs. print butter, 46½¢, and 40 1-lb. boxes September butter, at 46¢.

United States Price Fixing

THE United States Food Administration has announced that the price of bran to the wholesaler will be 38 per cent. of the cost of wheat at the mill. If the price of a bushel of wheat to the miller is \$2.20, the bran will be sold at about \$27.45 to the dealer. The purpose of this action of the Food Administration is to bring some immediate relief to dairy farmers in particular, and it is hoped that the reduction in the price of bran will cause other feeds to be cheaper. The price of cottonseed meal has

also been fixed by the Food Administration, at \$47.50 a ton (f.o.b. shipping point, in lots of 30 tons and more.

This is on the basis of a protein content of 36 per cent. For each per cent. of protein added the price will be increased \$1 a ton. When the price was fixed, meal of standard quality was selling at \$49.50 shipping point, and the reduction is, therefore, two dollars on the ton.

A representative of the American Poultry Association, who recently went to Washington in connection with the high price of poultry feed, quotes W. F. Priede, chairman of the poultry section of the Food Administration as saying: "We now anticipate that poultry feeds will drop in price to a point from 40 to 50 per cent. lower than during late summer and early fall of 1917." The report of the interview states that the full effect of actions that have been taken should be felt shortly after Jan. 1st. United States poultrymen are probably disconcerting this report considerably.

A Short Course in Poultry Husbandry will be held at Macdonald College for the four days, Feb. 19-22. All phases of poultry feeding, housing, marketing and even the cropping of the poultry farm will be covered, with as great a degree of thoroughness as

the time allows. In addition to the college staff, such leading authorities on poultry subjects will be present as F. C. Elford, Dominion Poultry Husbandman; W. A. Brown of the Dominion Department of Agriculture, and P. E. Aird, Secretary of the Montreal Poultry Association. It is a comprehensive program covering the essential phases of the poultry industry, and it is free for one who care to take it in.

Which Corn Yields Best?

Variety.	Tons. Tons.	
	Husked	Whole
	Ears per Acre	Crop per Acre
Wisconsin No. 7	3.4	13.0
Compton's Early	3.4	12.5
Golden Glow	3.3	12.2
Longfellow	3.2	11.8
White Cap Yellow		
Dent	3.1	11.7
Balley	2.8	11.1
Sater's North Dakota		
Kota	3.2	10.7

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The farmer nowadays realizes that he is under a terrific handicap in his efforts to make money, if he has to be constantly sinking profits in repairs. Only by using Concrete can he have buildings that do not call for repairs and painting. Only with Concrete for his building material can he have his farm fire-proof, waterproof, watertight, repair proof, vermin

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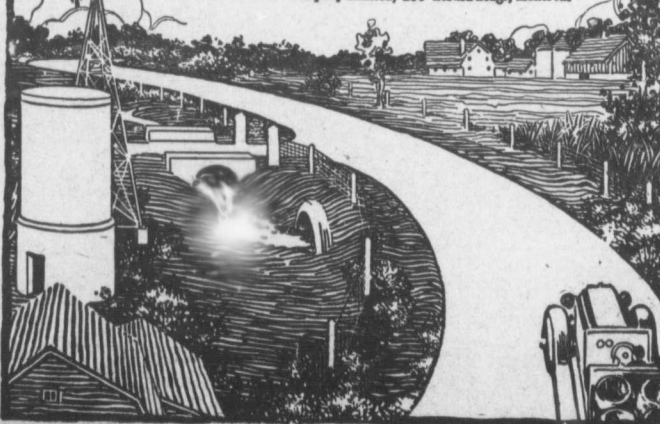
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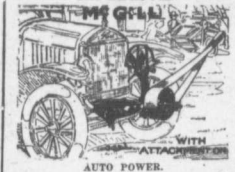
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**WANTED: A qualified man to operate a condensed milk plant. Must have experience. Apply G. A. Gillespie, Peterboro, Ont.**

**LADIES WANTED to do plain and light sewing at home, whole or spare hours; good pay; work sent by distance; charges prepaid, send stamp for particulars. National Manufacturing Co., Montreal.**

**WANTED—Cheesemaker for Ridge Tree Factory—married man preferred. Free house supplied; maker to furnish supplies and state at what price per hundredweight will make for. Make list season 26 tons. Applications received by the Secretary, Wm. H. Trick, Thorford, Ont.**

## FEEDING CORNER

## A Holstein Milking Record

OUR Holstein cows are milking from 30 to 55 lbs. of milk daily. We have lots of cows in the north who are feeding clover hay and at present are feeding mixed hay, mostly timothy. We would you suggest a balanced ration for feeding with both the clover and the timothy. We are near a good town and can get all the best feeds except brewers' grains, at standard prices.—A. J. W. York Co.

A balanced ration for a dairy herd such as described above could be made up as follows:—Corn ensilage, 30-35 pounds; timothy or clover, 8-10 pounds; and a grain mixture composed of bran, two parts; distillers' grains; gluten feed or ground oats, two parts; oil cake, one part; cottonseed meal, one part. Feed at the rate of one pound for every 2 1/2 pounds of milk produced in the case of the heavy milking cows, and at the rate of one pound to every 5 or 6 pounds of milk produced in the case of the cows well on in their lactation period. The above grain mixture is recommended when feeding clover hay. The bran portion of the mixture is increased slightly when feeding on timothy hay.—G. W. M.

## Feeding Cows Well on in Lactation

WE have several cows well on in their milking periods and giving 10 to 15 lbs. of milk a day or less. They are grade Jerseys and have been given them a little grain to keep them up in their milk but we doubt if the extra milk pays for them. Is there any advantage in continuing this grain feed outside of the increased milk? If a discontinued now, how long before freshening should I start to feed them again? What feeds are best before calving?—B. M. Sherbrooke Co., Que.

It is usually considered profitable to feed meal to good laying cows until they are practically dry. That which is not returned to you by way of the milk is laid up in fat on the cow's back and means increased production during the next lactation period, especially during the first few months of it. A pound of meal a day during the dry period is considered to be worth as much as two or three pounds of meal after freshening. Would advise feeding at the rate of one pound of grain for every five to six pounds of milk produced until about to dry them off, then remove grain from ration until dried off. A grain mixture consisting of two parts bran, two parts ground oats, corn or barley, and one part oil cake meal fed at the rate of four to five pounds a day for every thin cow, and at the rate of one to two pounds per day for cows in good flesh, should put the dry cows in good condition for calving.—G. W. M.

## The Colt's First Winter

A T sale this month I bought a couple of last spring's colts. A Clyde breeding, good growth and make. Any of the range. They are out every day. We have lots of good mixed hay and are feeding them a few oats or grain. How much grain would you advise to keep them growing well?—"Joe," Glenora, Ont.

The colt should receive plenty of exercise and be given a ration composed of good mixed hay (timothy and clover), together with from three to five pounds per day of a grain mixture composed of two parts oats and one part bran. If it is possible to add two or four pounds of roots (carrots, mangels or turnips) per day to the above ration would help it considerably. Give salt regularly, preferably in the form of rock salt, where they can help themselves.—G. W. M.

## Peanut Meal and Soja Bean Meal

IN town the other day I bought a copy of the Country Gentleman. In it I read of experiments at Iowa Experimental Station, peanut and soja bean meal are spoken of very highly as

plig feed. What is their value in this country?—Subscriber, Middlesex Co., Ont.  
Peanut meal and Soja bean meal are little used in Canada and at the present time are possibly off the market. Where procurable in the United States they are considered good hog feeds, particularly the soja bean meal. Peanut meal, a by-product of peanut oil manufacture, is high in digestible protein, 40 to 42 per cent. Tests at the Experimental Farm at Ottawa, where peanut meal was fed with shorts and ground barley, and compared with rations containing cottonseed meal, linseed meal, corn, distillers' grains, etc., indicated that the by-product in question had a low feeding value for pigs which in this case seemed due more to lack of palatability.—G. B. H.

## POULTRY



## Some Competition Statistics

THE Sixth International Egg Laying Contest, conducted by the British Columbia Department of Agriculture, has now been completed. Notes on the progress of this competition have appeared from time to time in Farm and Dairy and we can now give a summary of results. The following particulars will be of special interest:

No. of birds	240
No. of eggs laid	35,360
Value of eggs laid	\$1,516.63
Cost of feed	\$811.05
Profit over cost of feeding	\$695.58
Average price of eggs per dozen	.41
Highest price received	.50
Lowest price received	.30
Average cost per dozen	.1921
Average No. of eggs per bird	159.8
Average cost of food per bird	\$2.54
Profit over cost of feed per bird	\$2.91

A comparison may be drawn be-

## MRS. DARGAVEL DEAD.

It is with regret we learn of the death of Mrs. Dargavel, wife of Mr. J. R. Dargavel, M.L.A., at her home at Elgin, on Sunday last. Mrs. Dargavel is well known to a large circle of friends and to the readers of Farm and Dairy, who regret to hear of her loss and extend their sympathy to him in his bereavement.

Between results in the fourth contest of 12 months' duration, held in 1914-15, and the sixth contest in 1916-17. There were 240 birds in each contest.

Fourth Sixth Contest.	
No. of eggs laid	39,757 38,380
Cost of feed	\$527.38 \$611.05
Profit over cost of feeding	—
Average price of eggs	\$549.37 \$699.58
Average price of eggs	32.5 .41
Cost to produce dozen eggs	15.9 19.1

## Good Profit in Eggs

THAT eggs give the largest return for the money of any foods on the Canadian market to-day was the statement of Mr. Lewis N. Clark, of Port Hope, prominent utility fowl breeder, speaking before the Ottawa Poultry Association. He showed decidedly the general complaint of eggs being high-priced to-day that they only cost 14 per cent more than in the corresponding month before the war. Feed, however, had gone up 226 per cent, and the cost of labor 215 per cent. Eggs at 75 cents a dozen gave far more nourishment than two pounds of beef at the same price. What was vital for carrying on the egg business was that more eggs per hen

should be produced. While it cost 26 cents monthly for feed for each hen to-day, more than doubling the cost eight years ago, an egg-laying return of only 14 per cent, "which meant that fourteen hens out of every hundred should lay an egg a day, was necessary to meet ordinary expenses of the small poultry-keeper, if the eggs were sold at 75 cents a dozen.

He advised poultry men and amateurs to consult the Poultry Division of the Department of Agriculture. Mr. and Mrs. Clark also told of his experiments at Port Hope with an electric light installation in the poultry houses which automatically switched on light at five o'clock in the morning and at five sunset, so that the hen's day was lengthened by several hours, making her more active and resulting in a great increase in the production of eggs. "Whereas it used to be a bit of a gamble, I know now with the electric light I can make a profit from every hen," he said and several of the members of the Ottawa Poultry Association, who have also had good results from electric light in the hen houses.

Owing to the scarcity of wheat, Mr. Clark said the feed problem was likely to be greater until the end of the war, but he believed in the meantime, his poultrymen would feed what to fowls while it was so needed by the Allied armies and populations in Europe.—Canadian Food Bulletin.

## Poultry Pointers

I AM strongly opposed to the use of cayenne pepper. I know from past experience that it gives disease and kindred troubles as a normal result when this strong spice is used; but if that condition is placed in a preparation of spices, there no doubt is a medicinal value in it. Condition powder, a well-known self-respecting of such ingredients as work on the blood, which in turn purify the system, and nip in the bud any disease germs that may be starting. Furthermore, a reliable powder will strengthen the organs, which must make egg production more easy and natural. Of course, there must be a judicious use of all stimulating preparations—just enough to gain the point desired. It is not in the use, but the abuse that condition powder or any stimulant like corn, buckwheat or barley get, that makes them dangerous to fowl life.—M. K. Boyer.

C. H. Weycock says that 100 pullets, hatched at one time, and raised together, were placed in one house, and when one laid she was taken out. This was continued until there were fifty in each house. A critical examination showed that nearly all that were laying were of a certain type—while those that were unproductive were of another type—a longer legged, ungainly, slim-bodied hen, that spends her time looking for something to get scared at. A record of the two flocks showed a difference of twenty per cent in the number of eggs laid. No. 1 kept laying until nearly denuded of feathers, and after moulting, began laying before No. 2 did. A short-legged, deep-bodied, heavy-boned, well-developed, large combed hen, with a quiet disposition, has capacity to consume large quantities of food, and return eggs instead of noise and flutter.

It is not what we get in the market so much as what the thing costs, that determines our profit. The poultry business is not destined to make men wealthy. It is a steady occupation for the man who is not afraid to work, and it pays good wages to all such.

There is a little secret which makes some men richer, and some poorer, and others hardly make a sale. It is the manner in which the goods are marketed. First, the condition in which the goods are sent to the stalls. Second, the reputation of the goods have. Third, the time marketed.

Mr. J. factorie fartherth Wilkinson

The Some A

THE addition of weather abundant ception some loc years, labor is of its effect dairy price. There cream d create in ing stati wish to wisdom of (a) p (b) e another a and cons Your a of 319.

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Introdu is is any what industry measure of There is, eventually create in in this co create.





Instructor Buro and the Cornwall Silverware. Mr. J. Buro, of the Cornwall Syndicate, carried off the silver as the instructor whose factories got the greatest number of prizes at the Perth cheese exhibition. The cup farthest from Mr. Buro went to Charles Wilkins, Photo taken specially for Farm and Dairy.

## The W.O.D.A. Directors Make Their Report

Some Association News and Some Straight Statements on the Oleomargarine and Cheese Price Situation

**T**HE season just closed was favorable for milk production and no prolonged period of dry, warm weather prevailed. Pastures were abundant, fodder crops, with the exception of corn were equal to, and in some localities better than in former years. The price of cows, feed and labor is high with a serious shortage of the latter. This situation has had its effect upon the total production of dairy products.

There was very little export of cream during the past year. An increase in the number of cream buying stations is noticed. We again wish to express our doubts of the wisdom of this movement on account of (a) probable effect on butter quality, (b) economic grounds, as it places another middleman between producer and consumer.

Your association has a membership of 319.

A special officer was again employed to deal with cases of milk deterioration. 24 cases were reported (19 less than the previous year) and fines from \$10.00 to \$50.00 were imposed.

The butter "grading service" inaugurated by the Department of Agriculture has met with general approval and we respectfully suggest that this work be continued, in conjunction with the regular dairy inspection work.

The Act to regulate the manufacture of Dairy products provides for the registration, after inspection, of cream buying stations and also for the issuing of testing permits to the operators.

### Importance of Dairy Exhibitions.

We wish to express our appreciation of the increased number of entries by the cheesemakers and buttermakers of Western Ontario for the three chief fall exhibitions (Toronto, London and Ottawa), and to congratulate all those who won prizes. In this connection we wish to especially mention the Silverdale Creamery and the Black Creek Cheese Factory. Mr. Jno. R. Almont and Mr. Wm. Morse, were successful in securing the highest score for butter and cheese, respectively, exhibited at the Canadian National Exhibition, Toronto. We respectfully urge the cheesemakers and buttermakers of Western Ontario to make still further efforts to exhibit their products at these exhibitions, as well as at the Winter Dairy Exhibition.

### Introduction of Oleomargarine.

It is impossible at this time to state what may be the effect upon the dairy industry of the introduction as a war measure of oleomargarine into Canada. There is, however, a fear that it will eventually result in not only a decrease in the total production of fats in this country, but will also have a

detrimental effect upon the local butter markets.

The export trade may, during the war, be extensive enough to stimulate the creamery industry to maintain near the present output, but when changed conditions arise after the war, the situation will require very careful consideration if the industry is to be prevented from receiving permanent injury, and consumers also from being placed in a more difficult position than would be the case were oleomargarine not allowed. It is also feared that to properly enforce the regulations so as to prevent the fraudulent sale of substitutes for genuine butter will be difficult if not impossible.

### The Price of Cheese.

The price received for cheese during the past season, although high compared with previous years, was less than the price paid for market milk and its products. The price of milk, an extensive demand for which, latter products has developed during the war. Most of the milk in the cheese sections was, therefore, diverted during the last months into other channels, thus decreasing the usual production of fall cheese.

Under existing financial and abnormal shipping conditions it was no doubt in the best interests of the cheese trade that some special arrangement was made through the former Federal Government for the Cheese Commission to purchase Canadian cheese. Dairymen take a broad gauge view of the situation and they have, generally, no desire to question the advisability of this change in business methods. They realize that conditions demanded some such action in order that the cheese trade might continue with the least degree of inconvenience to producers.

It is, however, pointed out that some further consideration of the situation seems necessary for the coming season, to allow the various manufactured dairy products to be placed upon a more equal basis. The majority of the milk produced in Canada is manufactured into cheese and butter, the prices of which are controlled, the former through the price fixed by the British Board of Trade and the latter indirectly by the introduction of oleomargarine. The price of the milk which goes into direct consumption or is manufactured into other forms of milk products is apparently uncontrolled, or if so, the limit allowed is greater compared with that received for cheese and butter.

If the price paid for milk not intended to be manufactured into cheese and butter is necessary for the producers to make a profit above the cost of production, it may become difficult with the present labor short-

age to fully maintain cheese and butter production unless some levelling of prices takes place, especially when there is evidently no control of the expenditure required to cover the cost of milk production and also the cost of manufacturing, that is to say, the cost of stock feed in the first instance and the cost of supplies in the latter.

### Long Period of High Prices.

Authorities state that there is a world shortage of approximately 30 million hogs and also a very heavy shortage of beef animals. There will be after the war a wide demand for Canadian live stock at remunerative prices, and while the war lasts the demand will be tremendous. Indications point to a long period of high prices for meat and dairy products. Dairy cows are of equal importance to wheat growing. Should the dairy herds be reduced it will take far longer to restore them than to restore the supply of wheat. Shortly after the end of the war the demand for wheat will be lessened but the demand for live stock must, in view of the existing shortage, continue for years.

Factory cheese and butter-making is conducive to live stock raising. The valuable by-products of whey, skim-milk and butter-milk are among the cheapest and best foods for young stock and of immense importance in the economic production of hogs and beef. The cheese and butter industry, which is now passing through a critical stage of development, should, therefore, receive every encouragement, not only for the reasons mentioned, but also that there may be no curtailment of the output of highly concentrated human foods.

Security of experienced factory assistants and farm help will further handicap the industry during the coming season.

This is the fourth report of your Directors since this great world war began. No one may say how long it may last but perhaps before another report is due, allied victory will be complete. Then will come peace and the readjustment period. May we prepare so far as it is humanly possible to meet these changed conditions and in the meantime let us put forth every effort (along with the great army of dairymen of the country to the south of us, who have joined hands with the other allied nations in this great fight for democracy) to increase the milk output, special food supplies of the world, dairy products, beef and bacon.

### Nova Scotia Dairymen Meet

**T**HE 5th annual convention of the Dairymen's Association of Nova Scotia was held at the College of Agriculture at Truro on the 16th and 17th inst. Delegates were present from practically all of the cheese factories and creameries in the Province. The report on dairying showed that in the year 1,760,871 lbs. of butter were

manufactured at a value of \$706,889.25, an increase of 175,000 lbs. over 1916.

Addresses of much interest to dairymen were delivered by Prof. Trueman of the Agricultural College; D. J. Cameron of the Cold Storage Division, Ottawa; J. D. McKenna, of the Maritime Farmer, Sussex, and others. The most interesting features of the convention this year were the summer butter competition and the winter dairy exhibition.

The Scotsburn Creamery Company of Scotsburn, carried off the trophy for highest scoring butter in the summer competition. Their September butter scored 95.93; October, 95.8. The Pictou County Dairy Co., was a close second with a score for August butter of 95.7. In the whole summer competition the Scotsburn Creamery led with an average score of 95.56 and Pictou company followed with 95.34.

Winter dairy exhibition brought out the Acadia Dairy Co. as the leader in high average scores. Prizes in the creamery butter classes were awarded first, Acadia Dairy Co., Wolfville, with 95.36 scores; second, Scotsburn Creamery Co., score 94.83; third, Brookville Creamery, Brookville, score 94.43.

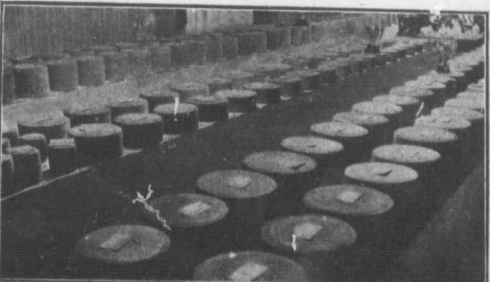
### Officers Elected.

Officers were elected for the current year as follows: President, A. M. Wheaton, Wolfville; Vice-President, Harold Fallover, Stellarton; Secretary, W. A. MacKay, Truro; Directors, J. D. McKenzie, Bridgewater, H. M. Aitken, River Hebert; John C. Chisholm, Lower Shor River.

Resolutions were passed asking the Department to urge the Agricultural Societies to keep records of the progeny of the bulls where a grant is given; that the Short Course, as started last year, be continued and that, when consistent with the times, a new up-to-date dairy building be erected at the College of Agriculture. A resolution of regret was passed on the death of C. W. Macdonald, Dairy Superintendent for the Province of New Brunswick.

### Sixteen Cows and a Machine

**"W**e have been milking 16 cows this past season, and I don't know how we would ever have gotten the work done without our milking machine," says B. C. Tucker, co-President of the United Farmers' Executive Company, Ltd., and a dairy farmer in Hastings county. "We installed our milking machine last March. When in full flow our cows are making 700 lbs. of milk a day. I did all of the milking myself with two units, stripped the cows, and the work was done in an hour and a quarter. My preference is for the single unit. The cows do not then have to be pained. Even in using the single units we do not wait for slow quarters. We prefer milk with the machine as long as the milk is flowing freely, and then finish by hand."



The Ontario Cheese Exhibit.

"The finest lot of fine cheese I've ever seen," was the verdict of Dr. J. W. Robertson, of Perth. The finish was especially good—Photo taken specially for Farm and Dairy.

# Farm and Dairy

AND  
Rural Home

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"Read not to contradict and to confuse, nor to believe and take for granted, but to weigh in consideration."  
Bacon.

## Let Wool Growers Beware

**A** CONVENTION of sheep raisers will be held in Toronto, February 5th to 7th, at which wool growers from every province will meet to discuss questions pertaining to the development of the sheep breeding industry in Canada. This convention comes at an opportune time. For the last two years the sheep industry has been booming. For the first time in 15 or 20 years, Canadian wool growers, with the freedom of the United States market and the stimulus of war demands, have been enjoying prices which cover cost of production and allow a fair profit to the producer. Co-operative marketing on a provincial basis has also played an important part in the increased returns. Even at present prices, however, a wool producer cannot be classed as a profiteer. If he allows himself fair wages for his labor and pays for feed and pasture, the interest realized on his capital investment will not be as great, even this year as industrial corporations have been accustomed to expect even in normal years.

But the textile manufacturers are not satisfied to share their profits with the producer of the wool. Although their business is flourishing as never before and enjoying profits such as the wool producer never makes, they are now redoubling their efforts to have an embargo placed on Canadian wool, in order that they may buy at their own price. A leading Canadian daily makes the following comment in its news section: "In Canada the cry becomes more insistent that an embargo on the exportation of Canadian wool is imperative and is coming." The Toronto Globe speaking editorially admits the injustices suffered by wool growers in the past, but concludes with the following comment:

"But, despite all this, the Canadian sheep-raiser now sees the necessity of making all personal interest for the sake of a more vigorous prosecution of the war. He intends to place his case in the hands of the Federal Government and rely on the representation of the Hon. Mr. Crear in bringing about a condition of affairs that will hit him harder

all the assistance possible to the textile industries without committing him to price regulations that will hurt this very important Canadian industry. Some months ago The Globe suggested that the Government might commandeer this year's Canadian wool clip, and all other clips during the continuance of the war, leaving the wool-growers free to sell their wools wherever they like after the war. That suggestion will provide a reasonable way out of the present difficulty."

It may be that this lack of understanding between producers and manufacturers may be due to a failure to appreciate each others' difficulties. It may be that the proposed conference between producers and manufacturers at the time of the Toronto gathering, will bring the opposing interests closer together. In any case, however, the placing of restrictions on the wool market would be an injustice that would endanger the future of the wool growing industry. It would be class legislation designed to add to the profits of the manufacturer at the expense of the producer. Textile manufacturers can keep the wool clip in Canada by paying a competitive price for it. This they do not intend to do, however, if they can influence the Government to impose an embargo which will leave the wool producer at their mercy. Apparently, if we may judge from their actions, when an embargo was imposed two years ago, they are quite willing to sacrifice the Canadian wool growing industry for their own immediate personal gain. Wool growers will do well to rally strongly in opposition to the influences which are being exerted in high places to curb their freedom of trade.

## Chinese Labor

**D**O the farmers of Canada want Chinese labor? Already it has been suggested by an official high in authority in one of our Provincial Departments of Agriculture, that 100,000 Chinese coolies be brought to this country in bond to help on the farms during the war, and then be returned to their own land.

Surely this is the counsel of despair! It is very easy to talk of holding Chinese coolies in bond, and then returning them whence they came when the war is over. To collect 100,000 of them from the Orient would, in itself, be no small task. To keep them in China once they had a taste of Canadian wages, and that at a war-time level, would be impossible. These coolies would carry home to China stories of great opportunities in America and thousands upon thousands of them would soon be coming back, head tax or no head tax. They would come back, too, when our own boys would have returned from the trenches and white labor would be abundant. They would come to compete with returned soldiers for jobs. No farmers are willing to work long and hard before they support a measure that would add another race problem to our already long list of national difficulties. We will have to look elsewhere for the source of the suggestion that Chinese labor be imported.

And we will not have far to look. Already one of the cordage companies in the town of Welland, Ont., has 400 Chinese laborers in its employ. Other manufacturers, not all we are glad to say, would welcome an opportunity to get cheap labor of a similar variety. Present gain would count for more with them than the maintenance of the Western standard of living on which rests our very civilization itself. Canada must be a white man's country and Canadian farmers will have nothing to do with making it otherwise. He who advises otherwise does not bespeak the sentiment of Ontario's farmers.

## The Rural Survey

**R**ETURNS are now available for 49 farms of the 113 covered by the rural survey in Caledon Township, Peel Co., Ont. As summarized by Mr. Leitch, who had the work in charge, the results hold out little encouragement to those whose ideal for rural Canada, is a land of small or family sized farms. Almost one-third of the farms surveyed were of 35 acres or less. The owners of these farms had a labor income of only \$332, or less than the

standard rate of wages for laborers in the same township. With farms of 36 to 100 acres, the labor income increased to \$314 and from then on by gradual stages to \$1,890 for the man with a farm of 151 to 130 acres and \$1,685 on farms of 131 to 240 acres. In the first class was one farm that returned a labor income of over \$1,600. This was one of the best farms in Ontario of its size with good land, good crops, good stock and good management. But when individuals in this class drew such satisfactory returns, some must have worked for almost nothing to bring the average labor income down to \$392. Even on farms of 100 to 130 acres, the labor wage was no better than the wages of good mechanics working shorter hours and with no financial investment or responsibility whatever.

One thing this survey has proved beyond the shadow of a doubt—the farmer is not a profiteer. Another thing it makes equally sure—that rural depopulation has had an economic basis. Last year was the most prosperous one that Caledon Township farmers have ever experienced. They enjoyed the unusual combination of good crops and good prices. In normal years, however, as Mr. Leitch was careful to emphasize, the farmers who worked 85 acres or less, must have given their labor for nothing and in the other classes the incomes would be substantially less. Even with war prices, farming is not proportionately prosperous with city industries as is proven by the steady drain of farm labor to munition factories. Recent figures show that the decrease in township population in the last year in Ontario has been 30,000, the largest decrease in any single year since the rural exodus started some forty years ago. This is accounted for in part by rural enlistment, but the attraction of high wages in city factories has probably been a greater factor. Our farmers' organizations and all real farm leaders have long been aware of the economic disabilities under which the industry has labored. The Caledon survey is another conclusive argument for the correctness of their deductions.

## A Valuable Convention

**T**HE annual convention of the Ontario Agricultural and Experimental Union, reported in Farm and Dairy last week, was attended by 150 to 200 students of the Agricultural College, and perhaps 30 farmers. The students could not have spent their time more profitably. The regrettable feature was the small attendance of farmers. At no convention of an agricultural flavor in Canada are problems of soil tillage and crop production discussed in so thorough-going a manner as at the annual meeting of the Experimental Union. This year, too, all other phases of the farming industry came up for some consideration, and there was much of profit for everyone in attendance, no matter in what line of farming he happened to be interested.

The Experimental Union was primarily intended as an organization of ex-students of the Ontario Agricultural College, who would cooperate in testing the comparative value of varieties of farm crops, the worth of which had already been proven in the Experimental Department of the College. The first year there were but twelve experimenters. Since then the work has grown, until last year 4,299 Ontario farmers cooperated in the work of the union. Its activities have been broadened out to include experiments with fertilizers, methods of weed eradication, and incidentally the union has become one of the greatest agencies for the distribution of desirable strains of seed grain that we have in Canada. At the annual convention each year the results of the season's work are discussed and many problems of farm management come up for thorough discussion. A full report of this year's proceedings will soon be available for the public. For next year's convention we bespeak a larger attendance of practical farmers. They will find it to be two days well spent.

Life is a series of surprises, and would not be worth taking or keeping, if it were not. God designs to isolate us every day, and hide from us the past and the future.—Emerson.

## In Union There is Strength

### Fair Weather Cooperators

By L. H. Blatchford.

YOU all know the men who think their local club and the central are fine fellows when he happens to strike the market right. He buys feed a dollar or so cheaper than he can get it locally, and perhaps gets a little better price for something he has to sell. But some day it is his misfortune to miss the market. He makes a great fuss, refuses to take his goods, or wants central to give him a rebate. What are they there for if it isn't to give him goods for less money than he can get them locally?

I believe the locals would have less difficulty in transacting their business if they would sell at retail prices and divide the profits according to the business done. They would not antagonize the local dealers to the same extent, neither would they show their disdain to him the same. He is anxious to know what your goods cost you, and there is usually some one who will tell him what a bargain he got. The dealers are often willing to cut a little lower for a time if by doing so they can create a dissatisfaction among the club men, for there are of-

ten men who cannot see beyond the immediate five cents. If members paid the retail price they would know exactly how much cooperative dealing was worth to them. If each of you got a cheque at the end of the year for say five or ten dollars you would feel it was easy money, wouldn't you? But where you save a few cents on a ton of feed, and buy a few tons at intervals, and take your profit at the time, you do not realize the saving. Then you have to figure on possible losses, and expenses, and securities to be paid. By selling at retail prices you have something to work on. This method appeals to me as the most feasible. Some clubs have adopted it and find it works quite satisfactorily.

### The Rights of Farmers' Clubs

Gordon Waldron, Solicitor for the U.F.O.

THERE has been a good deal of anxiety about town bylaws imposing penalties for trading without a license. Generally speaking, the towns cannot molest the clubs for bringing goods into railway stations and distributing them among farmers of the neighboring municipalities. Taking orders in the towns and delivering to people in the towns may come within the prohibitions of those bylaws.

There has also been anxiety about the penalties for non-registration of

### Ad Talk—Bare Facts

Advertising is an investment rather than an expenditure. This has been proven by thousands of business men in all walks of life.

Experience is a better guide than theory. This fact is obvious.

Years of consistent concentration on the economic problems of the dairy live stock situation in Canada has placed us in a position to render a unique service to Canadian breeders of live stock.

Satisfactory live stock advertising can be created best by men who have a special knowledge of Canadian live stock conditions. Such men are found on the staff of Farm and Dairy.

The agricultural and live stock market differs to such an extent from the city market that only farm raised and farm trained minds are sufficiently conversant with the various problems involved to meet the farmer on common ground.

If you wish to buy or sell dairy live stock, or if you wish to place your product, no matter what it may be, in rural districts, we can do for you what we have already done, and are still doing, for scores of other satisfied advertisers.

Any advertising campaign having as its objective the farmers of Canada, more particularly the breeders of dairy stock, can best be conducted through the Farm and Dairy.

FARM AND DAIRY is a publication which gives remarkable results with live stock advertisers.

There could be no more opportune time than the present for entering upon a strong advertising campaign. More particularly in this as with regard to breeders having live stock for sale. This is the time of year that the farmer has some money to spend. It is the time when he usually decides to buy pure-bred stock. You can help him decide, and at the same time benefit yourself. Put a half page ad. in our Christmas and Breeders' Number. It will reach the right man, at the right time, and in the right way. Try our yearly contract plan commencing with the Christmas Number. You will never regret such a move. All copy for Dec. 6th must be in by Dec. 1st. Phone or send your copy to night.

C. G. McKILLICAN,  
Live Stock Department—Farm & Dairy  
Peterboro.

### POTATOES SHOULD BE MARKETED.

"POTATOES should be going freely to market now," said Dr. J. W. Robertson, speaking before the E. O. D. A. Convention recently. "We must eat more potatoes. They are plentiful this year, although they are, by many persons, being held back from market for higher prices. If this hoarding of potatoes continues they will slump to \$1 a bag in the spring, for then they will have to be thrown on the market. So farmers should market potatoes now if they do not want them on their hands next spring."

Partnerships under the Partnership Registration Act. There is no just cause of anxiety. Generally speaking, as I have said, the clubs are not partnerships, but it is possible that occasionally they engage in strictly partnership transactions. I have not only to trading, manufacturing and mining partnerships. If by any chance liability should arise, the Government dare not, I should think, in view of your numbers and influence, hesitate to remit the penalties.

The object of our western farmers in going into business is not primarily to make a profit for our shareholders but to give service. Our aim is not to get the most possible out of the people we do business with, but to promote their interests and reduce in the cost of doing business. After this, in the most accomplished our desire is to be in a position to return any profits realized to the people from whom they are made.—H. W. Wood, President United Farmers of Alberta, Calgary.

The Cooperative Supply Company of the Alberta Farmers' Cooperative Elevator Company. Limited, last year did a business of \$1,300,000, which was about double the business of the year before.

## RIGHT NOW IS THE TIME When You Need a Silo and right now is the time to arrange for its erection



RIGHT now if you had a silo you would not only be getting 25% more milk, but you would be spending a great deal less for feed. With cream and milk at present prices, you must appreciate your need of a good silo more than ever, because there never was a time when good cows, properly fed, would return to their owner as great a profit as they do today.

Right now is the time when an Ideal Green Feed Silo, filled with rich, juicy, milk-producing silage, would save your worrying about feeding so much high-priced grain and would be putting more milk in the pail every day.

Right now is the time to prepare for bigger profits from your cows next winter. Our silo catalogue, which will gladly send on request, contains a great deal of valuable information about silage and explains why the Ideal Green Feed Silo is the best to buy.

Write today for this catalogue.

## THE DE LAVAL COMPANY, Ltd.

LARGEST MANUFACTURERS OF DAIRY SUPPLIES IN CANADA. Sole manufacturers in Canada of the famous De Laval Cream Separators and Ideal Green Feed Silos, Alpha Gas Engines, Alpha Churns and Butter-Workers. Catalogues of any of our lines mailed upon request.

MONTREAL PETERBORO WINNIPEG VANCOUVER



Made in Canada

## Cream Saving Machines

IF you are still setting your milk and skimming by hand, you are losing anywhere from one-fourth to one-third of your cream. If you are using a separator, and it is not one of the best, you are still losing an amount of cream that would surprise you if you knew it. Every farm loss or leak that can be stopped this year should be stopped. Buy a Primrose cream separator and stop the cream loss.



Don't imagine that cream left in the skim milk will fatten pigs and calves faster. It has been proved scores of times that stock thrives as fast on warm separator skim milk, when a little more or less replaces the fat. Cream in the skim milk is dead-loss cream!

Primrose separators get that cream. We can prove to you that they get it all, except about one drop in each gallon.

Besides that, they are well-known as simple, easy-running, easily-cleaned machines that last and do the same good work year after year. Buy a Primrose—it will pay back its cost in cream you may now be losing. See the local dealers who handle these separators, or, write us for catalogues.

## International Harvester Company of Canada, Ltd.

### BRANCH HOUSES

WEST—Brandon, Man., Calgary, Alta., Edmonton, Alta., Estevan, Sask., Lethbridge, Alta., N. Battleford, Sask., Regina, Sask., Saskatoon, Sask., Winnipeg, Man., Yorkton, Sask.

EAST—Hamilton, Ont., London, Ont., Montreal, Que., Ottawa, Ont., Quebec, Que., St. John, N. B.



## OUR FARM HOMES



OUR chain of life is forged with little rings; and little words and acts uplift the soul.—Egan.

### The Heart of the Desert

(Continued from last week.)

**Synopsis of Preceding Chapters.**—Rhoda Tuttle, a fragile girl, suffering with a supposedly incurable and more or less mysterious illness, while visiting a friend Mrs. Jack Newman, in the valley of the Pecos, for the benefit of her health, strayed out alone in the desert and was stung by a scorpion. She was in a helpless and fainting condition when a good looking young man, Charles Cartwell, who is Jack Newman's chief engineer, came along, dressed her wound and carried her home. She is afterward much chagrined to discover that her rescuer is an Indian—an educated, well dressed Indian, a graduate of Yale college—and race prejudice is strong in Rhoda. The Indian, called "Kut-le," is Jack's best friend and everywhere received by the best people on equal terms. Rhoda's fiancée, John Dewitt, and another visitor, Billy Porter, unite in a feeling of mixed admiration and distrust of the Indian while Rhoda seems more or less attracted. Kut-le is much interested and hearing that Rhoda steadfastly refuses to marry Dewitt on account of her ill health, determines to woo her back to health and win her for himself. Kut-le proposes to Rhoda and is refused. Then one night dressed as an Indian he steals her and runs away with her, with the intention of first teaching her the way back to health and then marrying her. He assures her that she is safe in his hands, but she tells him she hates him. She knows her friends will soon be on their trail. Another Indian and several squaws accompany Kut-le. He makes Rhoda wear a boy's suit of clothes. Rhoda endeavors to make her escape but Kut-le is ever on the alert.

MOLLY paused and grinned delightedly. "All right!" You come help poor Molly!"

With Cesca looking on sardonically, Molly poured fresh seeds on her rude metate and showed Rhoda the grinding roll that flattened and broke the little grains. Despite her weak fingers Rhoda took to the work easily. As she emptied out the first handful of meal, a curious sense of pleasure came to her. Scarcely before the metate she looked at the little pile of bruised seeds with the utmost satisfaction. Molly poured more seeds on the metate and Rhoda began again. She was hard at it when her cheeks flushed with interest, when Kut-le returned. Rhoda did not see the sudden look of pleasure in his eyes.

"You will tire yourself," he said. Rhoda did not answer, but poured another handful of seed on the metate. "You will begin to like the life," he went on, "by the time you are educated enough to leave us." He turned teasingly to Cesca. "You think the white squaw can cross the desert soon by herself?"

Cesca spat disdainfully. "No! White squaw no good! All time sit, sit, no work! Kut-lee hoop foot!"

"Oh, Cesca," cried Rhoda, "I'm too sick to work! And see this meal I've made! Isn't it good?"

Cesca glanced disdainfully at the little heap of meal Rhoda had bruised out so painfully.

"Huh!" she grunted. "Feed 'em to the horses. Injuns no eat 'em!"

Rhoda looked from the meal to her slender, tired Cesca. Her sister's contempt hurt her unaccountably, in her weakness her cleft chin quivered. She turned to Molly.

"Do you think it's so bad, Molly? That faithful friend grunted with

rage and aimed a vicious kick at Cesca. Then she put a protecting arm about Rhoda.

"It's heap fine! Cesca just old fool. You love Molly. Let Cesca go to hell!"

Kut-le had been watching the little scene with tender eyes. Now he stooped and lifted Rhoda to her feet, then he raised one of the delicate hands and touched it softly with his lips.

"Leave such work to the squaws, dear! You aren't built for it. Cesca, you old lubber, you make me tired! Go fix the turkeys!"

Cesca rose with dignity, flipped



A Home Fitted for Good Service for Years to Come.

This comfortable and commodious farm home is owned by Mr. C. S. Hurley, Prescott Co., Ont. As Mr. Hurley is one of the third generation to occupy this home, it is not new by any means, but its appearance is sufficient testimony that it will still do good service for many years. This house stands on the spot where the log cabin was built which was the first Hurley home.

away her cigarette and walked with a sniff over to the cooking-pot. Rhoda drew her hands from the young Indian's clasp and stretched to the edge of the camp. The hot pulse that the touch of Kut-le's lips sent through her body startled her.

"I hate him!" she said to herself. "I hate him! I hate him!"

The trail that night was unusually difficult and Rhoda had to be rested frequently. At each stop, Kut-le tried to talk to her but she maintained her silence. They paused at dawn in a pocket formed by the meeting of three divergent canons. Far, far above the desert as they were, still farther above them stretched the wonderful barren ridges, snow-capped and silent. As Rhoda stood waiting for the squaws to spread her blankets the peaks were litched suddenly by the rays of the still unseen sun. For one unspendable instant their snow crowns flashed a translucent scarlet that trembled, shimmered, then melted to a pink, then to a white so pure, so piercing that Rhoda trembled with sudden awe. Then as she looked, the sun rolled into view, blinding her eyes, and she turned to her waiting blankets.

She had slept for several hours when she was awakened by a soft tap on her shoulder. She opened her

eyes and would have risen but a voice whispered:

"Hush! Don't move!"

### CHAPTER VIII.

#### A Broadening Horizon.

Rhoda lay stiffly, her heart beating wildly. Kut-le and the squaws, each a muffled, blanketed figure, lay sleeping some distance away. Old Alchise stood on solitary guard at the edge of the camp with his back to her.

"Make as if you wanted to shift your blankets toward the cat's-claw bush behind you!" went on the whispered voice.

Obediently, Rhoda sat erect. Alchise turned slowly to light a cigarette out of the wind. Rhoda yawned, rose sleepily, looked under her blanket and shook her head triebly, then dragged her blankets toward the neighboring cat's-claw. Again she settled herself to sleep. Alchise turned back to his view of the desert.

"I'm behind the bush here," whispered the voice. "I'm a prospector. Saw you make camp. I don't know where any of the search parties are but if you can crawl round to me I'll guarantee to get you to 'em somehow. Slip out of your blankets and leave 'em rounded up as if you was still under 'em. Julck now and careful!"

Rhoda, her eyes never leaving Alchise's impassive back, drew herself silently and swiftly from her blankets and with a clever touch or two round-

him closely, Kut-le seated himself on his blanket beside Jim and offered him a cigarette, which was refused.

"I don't want no favors from you, Cartwell." His voice was surly. There was something more than his rough appearance that Rhoda disliked about the man but she didn't know just what it was. Kut-le's eyes narrowed, but he lighted his own cigarette without replying. "You're up to a rotten trick and you know it, Cartwell," went on Jim. "You take my advice and let me take the girl back to her friends and you make tracks down into Mexico as fast as the Lord'll let you."

Kut-le shifted the Navajo that hung over his naked shoulders. He gave a short laugh that Rhoda had never heard from him before.

"Let her go with you, Jim Provenso! You know as well as I do that she is safer with an Apache! Anything else?"

"Yes, this else!" Jim's voice rose angrily. "If ever we get a chance at you, we'll hank you sky high, see? This may go with Injuns but not with whites, you dirty pup!"

Suddenly Kut-le rose and, dropping his blanket, stood before the white man in his bronze perfection.

"Provenso, you aren't fit to look at a decent woman! Don't put on dog just because you belong to the white race. You're disreputable, and you know it. Don't sneak to Miss Tuttle again; you are too rotten!"

The prospector had risen and stood glaring at Kut-le.

"I'll kill you for that yet, you dirty Injun!" he shouted.

"Shoo!" sniffed the Indian. "You haven't the nerve to injure anything but a woman!"

Jim's face went purple.

"For two bits I'd knock your block off, right now!"

"There isn't a cent in the camp," Kut-le turned to Rhoda. "You get the point of the conversation, I hope?"

Rhoda's eyes were blazing. She had gotten the point, and yet—Jim was a white man! Anything white was better than an Indian.

"I'd take my chances with Mr. Provenso," she said, joyfully conscious that nothing could have hurt Kut-le more than this reply.

Kut-le's lip stiffened.

"Lunch is ready," he said. "None of your rub for mine," remarked Jim. "What are you going to do with me?"

"Alchise!" called Kut-le. "Eat something, then take this fellow out and lose him. Take the rest of the day to it. You know the next camp!"

Then he folded his arms across his chest and waited for Alchise to finish his meal. Jim stood in silent silence for a minute. Then he satiated himself on a nearby rock.

"No, you don't," he said. "If you get me out of here, you'll have to use force."

Kut-le shrugged his shoulders. "A gun at your back will move you!"

Rhoda was looking at the white man's face with a great longing. He was rough and ugly, but he was of her own breed. Suddenly the longing for her own that she was beginning to control surged to her lips.

"I can't bear this!" she cried. "I'm going mad, mad!"

All the camp turned startled faces toward the girl, and Rhoda recovered her self-possession. She ran to Kut-le and laid her hand on his arm, lifting a lathered, pleading face to his.

"O Kut-le! Kut-le!" in the tone that she had used to Cartwell. "Can't you see that it's no use? He is white, Kut-le! Let me go with him! Let me go back to my own people! O Kut-le, let me go!"

Kut-le looked down at the hand on his arm. Rhoda was too excited to notice that his whole body shook at this unwanted touch. His voice was

(Continued on page 15.)

"After flags, but a private of the 5th if we are and are the stirr-pommels in peace, bearing flags.

# The Upward Look

### Others May, You Cannot G. D. Watson.

**I**F God has called you to be really like Jesus He will draw you into a life of crucifixion and humility, and put upon you such demands of obedience, that you will not be able to follow other people, or measure yourself by other Christians, and in many ways He will seem to let other good people do things which He will not let you do.

Other Christians and ministers who seem very religious and useful, may push themselves, pull wires, and work schemes to carry out their plans, but you cannot do it; and if you attempt it, you will meet with such failure and rebuke from the Lord as to make you sorely penitent.

Others may boast of themselves, of their work, of their success, of their writings, but the Holy Spirit will not allow you to do any such thing, and if you begin it, He will lead you into some deep mortification that will make you despise yourself and all your good works.

Others may be allowed to succeed in making money, or may have a legacy left to them, but it is likely He will keep you poor because He wants you to have something far better than gold, namely, a helpless dependence on Him, that He may have the privilege of supplying your needs day by day out of an unseen treasury.

The Lord may let others be honored and put forward, and keep you hidden in obscurity, because He wants to produce some choice, fragrant fruit for His coming glory, which can only be produced in the shade. He may let others be great, but keep you small. He may let others do a work for Him and get the credit of it, but He will make you work all day long without knowing how much you are doing; and then to make your work still more precious. He may let others get the credit for the work which you have done, and thus make your reward ten times greater when Jesus comes.

The Holy Spirit will put a strict watch over you, with a jealous love, and will rebuke you for little words and feelings, or for wasting your time, among other Christians never seen or distressed over. So make up your mind that God is an infinite Sovereign, and has a right to do as He pleases with His own. He may not explain to you a thousand things which puzzle you, reason in His dealings with you, but if you absolutely sell yourself to be His love slave, He will wrap you up in His jealous love, and bestow upon you many blessings which come only to those who are in the inner circle.

Settle it forever, then, that you are to deal directly with the Holy Spirit, and that He is to have the privilege of tying your tongue, or chaining your hand, or closing your eyes, in ways that He does not seem to use with others. Now when you are so possessed with the Holy Spirit that you are, in your secret heart, pleased and delighted over this peculiar, personal, private, jealous guardianship and management of the Holy Spirit over your life, you will have found the vestibule of Heaven.

## Compensations

"After all, it is not they who carry flags, but they who look upon it from a private chamber, who have the fun of the procession," writes Stevenson. If we are set aside from active life, and are not able to make a figure in the stirring world, there are compensations. Let us possess our souls in peace, and cheerfully receive who are bearing the burdens, and waving the flag.

## Peanut Butter Very Nutritious

**T**HE peanut is an article of food which many of us do not use to the extent that we might. From comparisons of food values we find that peanuts contain one-quarter more protein and three and one-half times as much fat as their weight in refined beefsteak. We are continually being advised to conserve meat, so peanuts are surely a good substitute, occasionally at least.

Peanuts come to us in more than one combination. For instance, there is peanut butter. How many of us know how to make sandwiches properly with peanut butter? Very often the peanut butter is simply spread on the bread the way it comes in the jars, but this is not the best way to use it. It is a better plan to put some peanut butter in a bowl and combine it with twice as much cream, milk or water, and stirring until creamy and the consistency of mayonnaise. Then pour the flavor can be varied by adding a little shired cheese, chopped pickles or olives, hot catsup, orange marmalade, chopped dates and lemon juice, salad dressing, or lemon juice, with a little bit of salt as required.

We are told that peanut butter can also be used in soups, breads and cakes, as it serves both as shortening and thickening, and adds richness, color and flavor. It also makes good icing for cake, and if desired, a touch of chocolate may be added to darken and vary the flavor.

## Some Fuel Saving Hints

**T**HE fuel problem is one of the most difficult ones we have to face these days, especially those of us who have to depend for the most part on coal. Coal is one of the things which can hardly be purchased "for love or money." Up to last winter our main consideration in cold weather was to keep the house warm, but now we are confronted with the problem of keeping the house warm and at the same time burning the least possible amount of coal. Is there not a possibility that with a little careful study we might regulate our stoves and furnaces to a greater degree, and while keeping the house comfortably heated, we would not be burning excess fuel? Royce W. Parsons, editor of Coal Age, has compiled some rules regarding regulating heat, which he claims, if followed by all the people, would result in the saving of millions of tons of fuel. There may be some suggestions in these rules which would be helpful to some of our folks, and we mention them herewith:

Don't burn coal in an open grate, or in such a practice 75 per cent, or more of the heat goes up the chimney.

It isn't necessary to have every room heated. Most people would be healthier if they slept in cold bedrooms.

Examine furnace and see that there are no cracks at floor line to permit air leakage into the ashpit.

Endeavor to keep the entire fuel space of your range or furnace filled, heating, or cold slightly in the centre. Don't let the fuel burn waste. Break lumps to about egg size.

Feed the fire and shake the grate regularly intervals. Two or three times daily is generally sufficient. Shake down the ash before adding fresh coal and stop shaking the moment the first bright spot appears under the grate.

If the fire has burned very low and more heat is desired, open damper in the ashpit and add a small quantity of coal. In this particular case, do not shake the grate until this fresh coal is well ignited, then shake down the ashes and again add fuel. Don't leave feed door drafts open

and admit cold air over a glowing fuel bed at any time. Air for combustion should be drawn through the burning bed of coal, and, as a general rule, all checking of draft should be accomplished by closing the ashpit damper and opening the check damper in the smoke pipe. The check damper should never be opened until the ashpit damper is closed. The shut-off damper in the smoke pipe may be partly closed in case of an unusually strong draft or to check the fire in mild weather.

Before feeding a furnace see that the shut-off damper in the pipe is open, and close the check damper. This prevents the escape of dust.

Keep the ashpit empty. Remove ashes at least once daily, and be sure to sift all ashes to recover the good coal.

Clean fires frequently; with soft coal every other day is none too often to give the furnace a brushing down. One-eighth inch of ashes and soot on boiler surfaces retards heat transfer 25 per cent.

Careful sealing of a house by means of weather strips, double windows, etc., results in a material saving of fuel. Don't forget, however, that if the basement walls are airtight, provision must be made for an ample supply of air for combustion.

## The Old Reliable Remedy

**H**OW many people know just how to make a linseed poultice? Our grandmothers used to rely very largely on linseed in times of sickness when it was necessary to apply a poultice, but probably some of the present generation are not so familiar with making up this pain reliever. As linseed is generally considered one of the best materials to use for poultices, as it contains considerable oil and can therefore be used at a higher temperature than other substances without danger of blistering the skin, the following directions for making might well be saved for future reference:

Have for the adult, about one and one-half pints of water boiling furiously; into this sprinkle, slowly, stirring the water with a spoon while doing so, sufficient flaxseed to make the mixture just thick enough to be easily spread with a knife, but not so thin that it will spread by itself.

The mixture must not be allowed to stop boiling during the addition of the flaxseed and should be beaten lightly. Spread on to the muslin evenly about one-third of an inch thick.

Mustard is often added to flaxseed poultices in order to increase the counter-irritant property. The proportion of mustard to flaxseed is, for an adult, one to eight, and for a child, one to sixteen. Dissolve the mustard in tepid water and add it to the poultice after the flaxseed has been removed from the fire, and beat the poultice well so that it and the mustard will be thoroughly mixed.

A poultice should not be left on longer than one hour, as after that it is not even as warm as the body.

After removing the poultice, dry the surface of the skin and if it is very red, apply a little oil or vaseline.

## Pantry Battalion Regulations

**T**HE pan is mightier than the sword. Live economically and let live. A half loaf is better than most of us get. None but the brave deserve the best fare.

You cannot be a glutton and a patriot. Save food and save the world.

A foolish entertainer and her allowance are soon parted.

A soldier in need is a shame indeed. A potato saved is a battle gained. Learn to eat everything. All's fair in war—LIFE.

**IT PAYS TO ATTEND THE ELLIOTT Business College**  
Yonge and Charles Sts., Toronto.  
All products and services of our undergraduates of the past year have been under good business positions and still the demand is far beyond our supply. Write for Catalog. Enter at any time.  
W. J. ELLIOTT, Principal.

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or stuttering overcome positively. Our natural methods permanently restore natural speech. Graduate pupils everywhere. Free advice and literature.  
**THE ARNOTT INSTITUTE**  
KITCHENER, CANADA

**MAKE YOUR BIKE A MOTORCYCLE**  
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Careful sealing of a house by means of weather strips, double windows, etc., results in a material saving of fuel. Don't forget, however, that if the basement walls are airtight, provision must be made for an ample supply of air for combustion.

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Farm and Dairy is in an excellent position to champion the cause of the farmer in Canada, because it is owned and controlled exclusively by farmers.



## The Heart of the Desert

(Continued from page 12.)

caressing but his face remained inscrutable.

"Dear girl," he answered, "he is not your kind! He might originally have been of your color, but now he's You are safer here with me!"

Rhoda turned from him impatiently.

"It's quite useless," she said to Jim: "no pleading or threat will move him. But I do thank you—" her voice breaking a little. "Go back with Alchise and tell them to come for me quickly!"

Some responsive flash of sympathy came to Jim's bleared eyes.

Rhoda stood watching Alchise march shall him out of the camp. She moaned helplessly:

"O my people, my own people!" and Kut-le eyed her with unfathomable gaze.

As soon as lunch was finished, camp was broken. All the rest of the day and until toward midnight they wound up a wretched trail that circled the mountain ranges. For hours, Kut-le did not speak to Rhoda. These days of Rhoda's contempt were very hard on him. The old note in her voice, still thrilled him. At midnight as they watched the squaws unroll her blankets, he touched her shoulder.

"Dear," he said, in his rich voice, "it is in you to love me if only I am patient. And—God, but it's worth all the starvation in the meantime! Won't you say good-night to me, Rhoda?"

Rhoda looked at the stalwart figure in the firelight. The young eyes so tragic in their youth, the beautiful mouth, and in its firm curves, were strangely appealing. Just for an instant the horrors of the past weeks vanished.

"Good-night!" said Rhoda. Then she rolled herself in her blankets and slept. By the next morning, however, the old repulsion had returned and she made no response to Kut-le's overtures.

Day succeeded day now, until Rhoda lost all track of time. Endlessly they crossed desert and mountain ridges. Endlessly they circled through dusky canon and sun-baked arroyo. Always Rhoda looked forward to each new camping-place with excitement. Here, the rescuers might stumble upon them. Always she started at each unexpected shadow along the trail. Always she thrilled at a wisp of smoke-like cloud beyond the canon edge. Always she felt a quiver of certainty at sudden break of twigs or fall of stone. But the days passed and gradually hope changed to desperation.

The difficulties of the camp life would have been unbearable to her had not her paternal fortune and her intense pride come to her rescue. The estimate of her that Kut-le had so mercifully presented to her the first day of her abduction returned to her more and more clearly as the days wore on. At first she thought of them only with scorn. Then as her loneliness increased and she was forced back upon herself she grew to wonder what in her had given the Indian such an opinion. There was something in its piercing austerity that forced her to truthfulness with herself. Little by little she found herself trying to secure Kut-le's view of her.

Her liking for Moly grew. She spent long afternoons with the squaw, picking up desert lore.

"Do you like to work, Moly?" she asked the squaw one afternoon, as she sorted seed for Moly to raise.

"What else to do?" asked Moly, "Sit with hands folded on stomach, so? No! Still hands make crasy head. Now you work with your hands you no so crasy in head, huh?"

Rhoda thought for a moment. There was a lay in the ride. camp tasks

that she had assumed that she never had found in golf or automobiling. She nodded, then said wistfully:

"You think I'm no good at all, don't you, Moly?"

Moly shrugged her shoulders.

"Me not got papooses. You not got papooses. Moly and you no good!" Moly is heap strong. What good is that? When she die she no has given her strength to tribe, no done any good that will last. You are heap beautiful. What good is that? You no give your face to your tribe. What good are you? Moly and you might as well die to-morrow. Work, have papooses, die. That all squaws

are for. Great Spirit says so. Squaw's own heart says so."

Rhoda sat silently looking at the squaw's squat figure, the toll-scarred fingers, the good brown eyes out of which looked a woman's soul. Vaguely Rhoda caught a point of view that made her old ideals seem futile. She smoothed the Indian woman's hands.

"I sometimes think you are a bigger woman than I am, Moly," she said humbly.

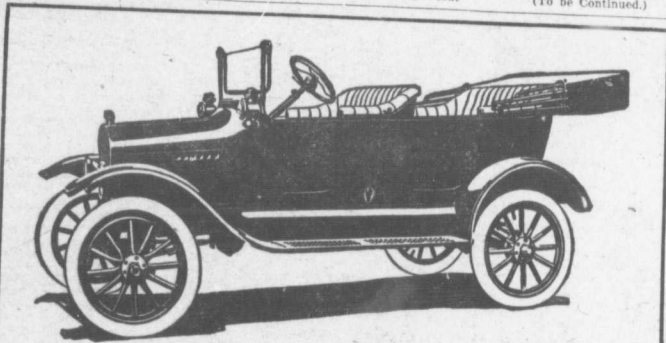
"You are heap good to look at." Moly spoke wistfully. "Moly heap lonely. You think that makes any difference to the Great Spirit?"

Rhoda's eyes widened a little. Did it make any difference? After all, what counted with the Great Spirit? She stared at the woman whose that

lifted mute peaks to the silent heavens. Always, always the questions and so vague the answers! Suddenly Rhoda knew that her beauty had counted greatly with her all her life, had given her her sense of superiority to the rest of the world. Rhoda squirmed. She hated this faculty of the Indians and the desert to make her seem small. She never had felt so with her own kind. Her own kind! Would she never again know the difference, the gentleness, the loving tenderness of her own people? Rhoda forgot Moly's wistful question.

"O Moly!" she cried. "I can't stand this! I want my own people! I want my own people!"

Moly's eyes filled with tears. (To Be Continued.)



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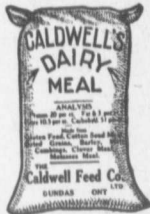
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## UNION BANK ASSETS NOW EXCEED \$143,400,000.

THE Union Bank of Canada not only maintained, but actually increased its recent rate of progress during the fiscal year of 1917, which closed on November 30, and for which the figures are now available. As being the first of the new general manager, Mr. H. B. Shaw, and the first year of operation of the Bank's New York Agency, established early in 1917, with an advisory committee, including such prominent financiers as Messrs. Stuyvesant Gil, Cornelius Vanderbilt and Gilbert T. Thorne, the past twelve-month has been a specially interesting one, and the shareholders and clients of the Bank have every reason to be satisfied with the result.

According to statement the assets of the bank for 1917 exceed \$80,663,065.70, but in 1917 the increase reached the remarkable figure of over \$143,400,000, which is 75 per cent. more than they were at the beginning of the year, as shown in the balance sheet of three years ago. There has, it is true, been a great tendency towards the increase of the volume of banking business in Canada, as in most other countries during this period, but the Union Bank of Canada has succeeded in capturing a fair proportion of this expanded business than the great majority of its competitors.

This growth in assets is produced by a general expansion in all classes of the Bank's dealings with the public. Both interest-bearing and non-interest-bearing deposits are leading features of the Bank's most striking feature of the liabilities is the volume of the bank's note circulation, which is approximately \$7,750,000 upon a paid-up capital of only \$2,000,000, more than two and a half times the capital. The "excess issue," or the amount of notes outstanding over and above the capital is more than covered by the deposit of gold and Dominion notes in the Central Gold Reserve. The liabilities to the public total about 135 millions, against which the bank holds a very strong reserve of cash and liquid assets amounting to 17 millions, or about 12 per cent., a slightly higher rate than last year's. Of these assets no less than 19 1/2 millions are in Dominion notes, and the balance of the amount of notes deposited in the Central Gold Reserve, and in addition to the services performed by the carrying of this large amount of Dominion obligations the Union Bank also the holder of \$5,361,000 of Dominion and Provincial securities, and of \$15,244,000 of Canadian municipal and non-Canadian public securities, the latter class consisting largely of U.S. Treasury bills. Thus the strength of the Union Bank is to no small extent employed for the direct support of the financial operations of the Empire. There is a moderate increase in current loans in Canada.

Profits, as might be expected, in view of this expanded business on an unchanged capital, show a decided increase, amounting to \$763,663.92. The dividend and bonus take \$460,000, leaving \$303,663.92 for taxes, donations, pension fund and the appropriation for Contingent Account. Of this remainder, \$75,000 is written off Bank Premiums Account, and the balance is added to profits, carried forward. This bank has throughout the war been able to maintain its dividend and bonus and pay off all depreciation charges out of current profits, but this is the first year that it has been possible to make a writing-off for bank premises. The great strength of the Union Bank in the West, where a large volume of currency is being employed in the financing of the 1917 crop, doubtless accounts for this remarkable showing, which indicates the strength and popularity of the bank and the profitable nature of its condition.

## THE ABERDEEN ANGUS.

FARM and Dairy begs to acknowledge the receipt of a copy of the revised edition of "Supremacy of Aberdeen Angus Cattle." This is the fourth edition of this excellent little booklet, which tells in picture and in print of the merits of this great breed. Readers who are interested in the breed may secure a copy on application to the Secretary, Chas. Gray, 817 Exchange Avenue, Chicago, Ill.

## AN ARBOGAST SALE.

ARBOGAST BROS., of Sobrinville, recently sold to N. B. MacArthur, of Thompsonford, a choice bred young bull sired by the \$2,000 bull, King Sleggs of Sobrinville. The two nearest dams of this young bull averages over 25 lbs. butter in 7 days with an average test of 4.4 per cent.

## MR. LANING'S OFFERING.

READERS will notice the advertisement of Mr. Robt. G. Laning, of Villa Nova, which appears in this issue. Mention is made of an advertisement in our columns, and we take this opportunity of introducing him to our readers. The young bull he offers is a bargain at the price quoted. He has a sister with a 25-lb. Jr. 4-year-old, and in looking over his pedigree, we notice such names as Madam Peach Paradise, Butter, 34.28, Can. record when made, Prince Pauline DeKol, 14 R. M. daughters, and 12 R. M. of W. sons, and Mercera 3rd, v. 7. 27.80 lbs. butter in 7 days.

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