

FARM AND DAIRY & RURAL HOME



DEVOTED TO
THE FARMING
AND CANADIAN
COUNTRY LIFE



Toronto, Ont., December 14, 1916

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THE YAWNING VASTITUDES.

ISSUED EACH WEEK.

Address all Correspondence to
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FARM AND DAIRY & RURAL HOME

We Welcome Practical Progressive Ideas

The Recognized Exponent of Dairying in Canada

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 Chatham

VOL. XXXV

TORONTO, ONT., DECEMBER 14, 1916

No. 49

A City Business Run by Farmers The Farmers' Dairy, of Toronto, and the Dairy Farmers Who Control It

By R. D. COLQUETTE, B.S.A.

OUT of the trouble that arose in the fall of 1908 between the milk producers supplying milk to Toronto and the dealers of that city, arose the Farmers' Dairy Company. The difficulty concerned the price which producers were to receive for their milk. It became so acute that the producers declared a strike, and for two days were successful in withholding about 75 per cent. of the city milk supply. The differences were also aired in court, charges and counter-charges of combinations in restraint of trade being made. From the contest the producers emerged victorious, but it left thoroughly grounded in their minds the idea that in order to keep the situation in hand and avoid a repetition of the trouble, radical changes in policy would have to be adopted by the association.

The Germ of a Big Idea.

The conviction gradually grew that the situation could best be met by the farmers undertaking to deliver milk direct to the consumer. Accordingly a committee was appointed by the Association, consisting of President Cornell, Secretary A. J. Reynolds and Mr. L. E. Anna. The records of the association show that their instructions were: "To get all obtainable information along the lines of an organization composed of farmers to produce and distribute to the citizens of Toronto pure and clean milk and cream at reasonable prices, and to report to the executive at their earliest convenience."

In those instructions lay the germ of one of the biggest, most sanitary and most up-to-date city dairy concerns on the continent. The committee, after careful investigation, recommended that a company be formed with a capitalization of \$60,000, consisting of 1,200 shares of \$50 each. The recommendation was adopted by the association, and a provisional directorate formed. The first aim of the directors was to secure subscriptions for sufficient stock to finance the proposed enterprise. This stock was sold provisionally upon the understanding that it was only to be paid in case the formation of the company proved practicable. It might have readily been sold to financiers or other interests outside of agriculture, but the milk producers were determined that this should be purely a farmers' company, owned and controlled by the producers of the milk which it handled. One of the provisions was that a man must be a producer of milk before he could become a stockholder, and in order to prevent the control of the proposed company from falling into the hands of a few, it was provided that no more than 10 shares could be taken by one holder. This insured a wide distribution of the stock amongst producers, a provision which has resulted in a marked addition of strength to the company.

It was not an easy matter to get farmers to subscribe their money for such a purpose. They re-

alized that it was a strange new venture for farmers to enter into a city business, one requiring the soundest of management and having for its competitors strongly entrenched business interests. Hard, pioneer work had to be done, and many of those who now ship their milk to the Farmers' Dairy Company, or who take its product in at the doors of their city home, will never know the magnitude of the difficulties that confronted the men in whose hands the organization of the enterprise had been intrusted. Among those that struggle who earned the enduring gratitude of

those who are now benefiting by the enterprise are Mr. J. G. Cornell, now vice-president of the company; A. J. Reynolds, secretary of the company, and also of the Toronto Milk Producers' Association, Mr. Jas. Crichton and Mr. W. C. Grubbe.

The Company Starts Business.

In due time the formation of the company was completed, and operations were commenced in a downtown plant. It was thought at the time that this plant was sufficiently large to accommodate the business for many years to come. Owing, however, to the appointment of new and more aggressive management some three years ago, the business soon outgrew the capacity of these narrow confines, and it was decided to build a dairy plant large enough to comfortably accommodate the business, and that would be the last word in sanitation and efficiency. In order to do this the capital was increased to \$200,000. In due time the new building was finished, and it has now about completed its second year in operation.

A Visit to the Farmers' Dairy.

It was on a Saturday afternoon not long ago that I visited the Farmers' Dairy. I had previously endeavored to see the management of one or two other city firms engaged in other lines of work, but had found their offices closed for the week. But such was not the case with the managers of the Farmers' Dairy. They were right on the job, busy, but with time to be courteous and to show visitors over the building. Plant Superintendent Coule, who was born and raised on a Durham county farm, and who knows the city milk business from the milk pail to the milk bottle, kindly showed me over the plant and explained the various processes by which the milk is prepared for city consumption. We began at once with the receiving room, where the milk cans come in from the drays in which they are hauled from the express cars, and followed the milk in its course until it was bottled and ready for distribution next morning.

Upon being unloaded from the drays, the cans pass along a conveyor consisting of rollers, through a partition to where they are inspected, sampled and emptied into a tank. The empty cans then pass on to the washing room, where they received four washings, two rinsings, two blasts of live steam, which effectually dispose of the germs that may be lingering in them, and, finally, three blasts of hot air. From this they come out clean, dry and sanitary, ready to be returned to the producer.

Encouraging Cleanliness on the Farm.

The milk from the tank into which the cans are emptied is immediately pumped to the highest part of the building, from whence it flows by gravity until it is finally bottled. The first thing done at this high point is to heat the milk to 120



Fchoes from the Fair.

I HAVE attended nine out of the last ten Winter Fairs held at Guelph, and the exhibit of breeding stock at this year's show is the best I have ever seen here. A particularly noticeable feature is the finish on the animals shown. It is a credit to the farmers of Ontario that, with feeding stuffs as high as they are, they have had the nerve to stay with the live stock game as they have done.—Hon. Duncan Marshall.

Recently I have been in communication with the general manager of one of our largest banks, and he has assured me that he has instructed the managers of all his branches to make loans to all responsible farmers who apply for them as a means of securing feeds for carrying their stock over winter.—Hon. F. L. McDiarmid.

There is an alarming tendency to reduce the number of farm animals from year to year. In some cases farmers are selling merely because others are doing it, and as a result when better seasons come, not a few will find themselves without what would be their most valuable asset. The depletion of our farm herds is the one cloud of importance on our agricultural horizon.—Prof. Geo. E. Day.

degrees Fahrenheit. At this temperature it filters readily through absorbent cotton, the medium by which any dirt it contains is extracted. "I see you do not use a clarifier," I remarked to Mr. Coule. "No," he replied, "our policy is to encourage our patrons to keep the dirt out of the milk at the farm. If the milk is kept clean there, we have no trouble with it here. In order to keep the patrons informed of the condition of their milk we make sediment tests of the samples, and if the dirt shows up badly, the patron is communicated with and an endeavor made to stop the contamination at its source. In this we usually meet with hearty cooperation on the part of the producer." Asked if he thought the sediment test a reliable indication of the sanitary condition of the milk, and if he thought that patrons could not, by straining milk through cheese cloth, disguise its unsanitary condition, he replied: "Not altogether. Show me two sediment tests, one of milk that has always been kept clean, and the other of dirty milk that has been strained through cloth, and I can tell the difference. A discoloration will be found on the absorbent cotton, caused by dirt which had passed through the comparatively coarse material which it would be necessary to use in straining it on the farm."

After passing through the filter the milk goes directly to the pasteurizers. Here it is heated rapidly to 144 degrees F., and held at that temperature for one-half hour. The use of three pasteurizers prevents the use of the holding method of pasteurization from interfering with the steady flow of milk through the plant. After being pasteurized the milk flows by gravity through a pipe to the cooling room situated on the floor beneath. This room is entirely enclosed with glass and is dust and germ proof. It is never entered except by an employee, and by him only seldom. This precaution is necessary because here the milk is exposed to the air. It is cooled by being exposed over pipes which are cooled by the ammonia system of refrigeration. At the top of the cooler the milk enters at the temperature of pasteurization. It flows off at the bottom only two degrees above the freezing point.

From the cooling room the milk is piped to the bottling plant on the first floor. Here specialized machinery takes the place of human hands. The bottles are filled, sealed, each one is carefully inspected, and they are then placed in a crate all ready for handing into the delivery rigs. They then pass along a conveyor to the cold storage room where they are held at a temperature of 40 degrees until next morning when they are distributed to the worthy citizens of Toronto who are fortunate enough to be able to secure their milk from this source. Upon their return the empty bottles are washed, sterilized with live steam and dried with hot air in much the same way as the milk cans.

Handling the Surplus—When There is One.

The supply of milk varies. Just now it is impossible to secure enough to satisfy the demands of the customers. Sometimes, however, the supply is greater than is required for city consumption, and special arrangements have been made for handling the surplus milk and thus accommodating the patrons. What is not needed for the city trade is separated and butter is made and sold. Formerly the skim milk was turned into the sewer, but the present manager, Mr. R. D. Hughes, conceived the idea of turning it into money. Upon his recommendation a casein plant, costing \$850, was

(Continued on page 9.)

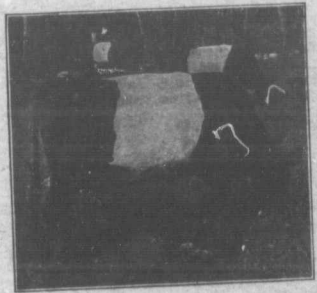


A Flourishing Field of Alsike in New Ontario. A modern dwelling, with a shaded lawn, also graces the Farm of Alex. Skene, in the Rainy River District.

A Silo in the Barn

It Requires Abundance of Barn Room

It is usually recommended that silos be built outside the barn, but there are conditions under which it is permissible, or even desirable, to build them inside. Such conditions exist on the farm of Mr. A. T. Stainton, Durham Co., Ont. While looking through his stable recently, I noticed the base of his silo in one corner and enquired why it was that he had built an inside



Dutch Silted Cattle—Seldom Seen in Canada.

silo. "My principal reason," he said, "was that I had lots of barn room, both above and below. Where the barn room is limited I would not advise building the silo inside, but there are certain advantages in having it located there, which should not be overlooked when one is not crowded. The first of these is that it can be more cheaply constructed inside than out. My silo is 12 x 39 feet, and cost me only about \$75 in cash outlay. It is built, as you see, of two by four inch scantlings, lined with two thicknesses of half-inch planks six inches wide, and is on a cement foundation. I now have it filled for the third time, and it is still in perfect condition. When not exposed to the weather, the lumber does not dry out and the joints keep tight. It will last much longer than an outside silo, or rather, it is not necessary to take permanence into consideration when building beneath the shelter of the barn roof. No silo roof is required, and there is less freezing, because the silo is at least partially surrounded by straw or hay. There is

the additional advantage that the chute comes down nearer the centre of the stable, and the silage is therefore much handier for feeding."

Mr. Stainton, who is of a mechanical turn of mind, turned his gift in this direction to good advantage last fall at silo filling time. He has two gasoline engines, one five h. p., the other, which runs the milking machine, one and one-half h. p. The big one was not strong enough to run both the ensilage cutter and the carrier, so he conceived the idea of bringing up the small engine from the stable beneath and running the carriers with it, the power of the larger engine being therefore utilized in running the ensilage cutter alone. The scheme worked to perfection, for he filled 23 feet of the silo in one day. This experience brought out another advantage in favor of the inside silo under certain conditions. Since the barn floor is nine or ten feet above the base of the silo, a shorter carrier is needed, and the little engine had no difficulty in running a sufficient length of carrier to reach the top.

The advantage of having a silo filling outfit was brought out on Mr. Stainton's farm this fall, as it has also been in numerous other instances where the full silo capacity is required to accommodate the corn crop. The silo was refilled after the corn had settled. Several loads of corn were therefore disposed of which would otherwise have been left in the stook or stood upon the barn floor. At the same time, what would otherwise have been lost space in the silo was fully utilized.—R. D. C.

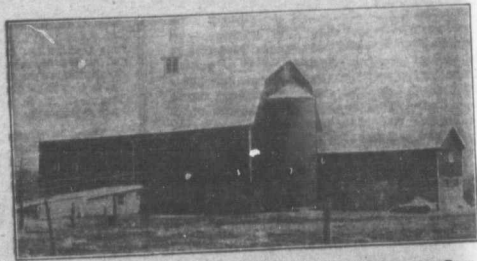
Winter Killing of Alfalfa

(Hoard's Dairyman.)

WE notice a good deal of complaint relative to the winter killing of alfalfa. This is a difficulty we have never had on the Hoard's Dairyman Farm since 1901. We attribute much of our exemption to the methods of procedure.

First, we aim to always plow our alfalfa land in the fall after first giving it a dressing of manure and 1,000 pounds of raw rock phosphate to the acre. Alfalfa needs a firm, well-settled soil, and it gets that on fall-plowed land. In the spring the land is thoroughly disked, but not deeply, and well harrowed. Then the alfalfa is sown early, say, in April or the first half of May, with three weeks of barley as a nurse crop. The result is that each alfalfa shoot gets a firm, deep root before freezing weather sets in. The barley stubble is cut as high as possible so as to help hold the snow.

Another thing, we never cut the young alfalfa or graze it, leaving it get all the growth it can before winter sets in. The manure and phosphate help feed the young plants so that they are well prepared to resist the cold weather. Try our method and see how it works. Don't forget the necessity of well-settled, firm soil, which you get by fall plowing.



A Neat, Well Proportioned Barn Adds to the Attractiveness of a Farm. This modern structure is 1909 of Mr. C. V. Robbins, Lincoln Co., Ont.

Western Ontario Dairymen on Cream and Butter Grading*

What Has Been Accomplished

Frank Hens, Chief Dairy Instructor.

ANY of you who have been following the progress of the conventions of the Western Ontario Dairymen's Association, will no doubt have noticed that they have been gradually leading up to this question of cream and butter grading. Several addresses on these subjects have been given by well known men, including Mr. C. Marker, of Alberta, and by Prof. J. W. Mitchell, then of Manitoba. The instructors have been talking about grading, but previous to two years ago, cream and butter grading was not a matter of general interest. Buttermakers were not thinking of it. During the last two years, however, they have been thinking about it, and they require that some way shall be found by which they will be reimbursed for their skill and pains if they make a good quality of butter. Patrons are also becoming interested. For some years, therefore, conditions have been gradually shaping themselves to a point where we must work out a plan by which to proceed. Now with prices so high one can sell almost any kind of butter, but after the war the demand will fall off and grading will be more necessary, so that it is necessary that in the meantime we secure all the information available, so that we will be able to meet any conditions that may arise in the butter market.

Standard Grades Drafted.

In order to get at the condition of the butter of Western Ontario as it reaches the market, Mr. Putnam and I met some of the dealers of Toronto last April with a view to getting their cooperation in investigating the butter as it came to their warehouses. They gladly consented to assist us, and I wish here to express our appreciation of that assistance. A set of standards for the different grades of butter was drafted, based on the score cards as commonly adopted at our leading fairs. First grade butter would be such as scored 90 points with a minimum for flavor of 39 points. Second grade butter was required to score 87 points with a minimum of 37 for flavor; while third grade would score not less than 82 points. All butter scoring below this would be known as off-grade or culls.

For carrying on our work arrangements were made by which representatives of the dairymen would have access to the butter in the storage rooms of the warehouse men in Toronto. To conduct the investigation we were fortunate in being able to secure the services of Mr. J. H. Scott. During the summer and fall months he has been engaged in the work, and has been in a position to familiarize himself with the quality of the butter as it reached the market. In pursuing this work it was our purpose, not to turn things topsy-turvy by sudden radical changes, but to gather information so that the dairymen of Western Ontario might proceed gradually and safely in endeavoring to improve the quality of their butter.

In order to be of additional service to the makers, during November they were requested to score samples of their butter and to send them in to be scored by Mr. Scott. By this means he was enabled to compare his score with theirs and to form an idea as to the relative opinion of the maker, the grader and the dealer regarding the

grade into which the butter should go. To every creamery man whose product reaches Toronto, I would advise sending in 10 or 14-lb. boxes and get Mr. Scott's report. It will be of inestimable value to you in arriving at some idea of the condition in which your butter goes into storage.

Grading Cream by Sample.

It has been said that you cannot grade cream by sample in Western Ontario. In an endeavor to secure information on this point last summer the creamery instructors went out on the cream routes and graded samples of the cream as received at the farm. These samples were classed as No. 1 and No. 2. The cream which they scored came back in jacketed cans, except in one instance when a cream tank was used. The gathering was done under ordinary conditions. At the creamery the maker and the instructor again graded these samples without looking at the previous records. It will be seen from this that if they got the same grade at the factory as had been secured at the farm, they must be getting near to the solution of the question. It is gratifying to know that from 85 to 90 per cent. of the samples were graded the same at the farm and

be according to grade, they would pay on the whole higher prices. Time and time again retailers have told me that if they could be absolutely certain of the quality, they could pay one to two cents more a pound for butter of the highest grades, and in turn get it from the trade. Consumers are willing to pay the extra amount if the retailer can guarantee the product as first class in quality.

Under present conditions, the retailers are not sure of the quality of the butter they buy. In a shipment of very good butter there may be a box or two that is decidedly off flavor. In taking advantage of the best trade, it would be necessary to put on the date and the churning, so that it would be possible to cut out inferior churnings.

A City Dealer Who Wants the Best

J. A. McLean, Bowles Creamery, Toronto.

I DO not believe that there is any question, but that every maker wishes to turn out a good quality of butter, but in order to turn out a good product it is first necessary that he should have graded cream. As an illustration of the

benefits of grading in farm products, we might take the case of eggs this summer. As a result of introducing the system of paying for eggs on a "loss off" basis, there was an improvement of over 30 per cent. in the quality of the eggs received this year. From the standpoint of national economy it is also necessary that we do our utmost to conserve food products and that conservation cannot be conducted to the best advantage unless these products are graded and the good kept from the bad. Every man should be encouraged to stand behind his product. I believe the Department of Agriculture should instruct Mr. Scott to grade every sample of butter that comes to the Toronto market. The time is coming, and may it soon come, when every churning shall be scored before going into storage.

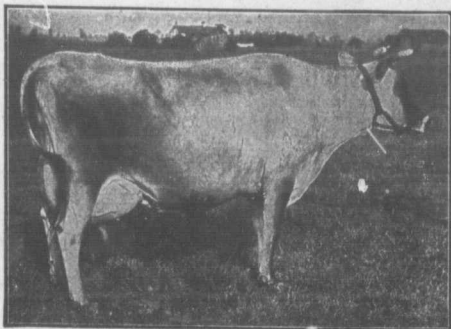
The spirit that should imbue every man should be that "the best product is the only thing." But it is useless of any creamery man endeavoring to turn out the best product, unless he receives at his factory good butter. This question therefore, of good butter, can only be solved by the adoption of some system of grading cream.

A Crying Need for Better Butter

Geo. Putnam, Director, of Dairy Branch, Toronto.

ONTARIO has long been looked upon as the banner dairy province, and she still holds that position regarding cheese. In the matter of butter, however, there is a crying need for the production of better butter, and we must attack the problem and solve it in some way or other. In doing this we must have the hearty cooperation of all concerned. It is not for me in outline at this time what the Department of Agriculture has in mind, but I might say that we are ready to do what is necessary to place the butter of the province on a better basis. In proceeding, however, it is necessary that the dairymen have some definite and effective plan worked out by which we may proceed.

Replacing a safety plug of a boiler with a bolt is inviting disaster. Always use a fusible plug so that if the water gets low it will melt. Otherwise someone else may tell what happened.



Sunbeam of Edgley, the winner of the Dairy Test at Guelph, 1916.

She is not only winner, but she raises the standard if points higher than ever before. She has type and producing ability. This ability is not confined to short term work, as she also holds the championship record for butter production in Canada.

at the factory, and this in cases where the samples had no special case.

In conducting this work we came across two striking propositions. We found that the average temperature of first grade cream when received was 65.3 degrees F., that of second grade cream 68.1 degrees F., and that of third grade cream 73 degrees F. There would seem, therefore, to be a relationship between the average temperature of the cream received and the temperature at which it has been held. Another striking thing was that the average test of the first grade was 30.01 per cent. of butter fat; of the second grade, 27.6 per cent. of butter fat, and of the third, 25.7 per cent. of butter, so that on the average the higher testing cream graded higher than lower testing cream.

Buyers Favor Butter Grading

J. H. Scott, Exeter.

FROM my contact with wholesalers and retailers of Toronto during the past season, I found that buyers were unanimously in favor of paying for butter according to quality. If it could be guaranteed to them that that quality of every box of butter which they received would

*Extracts from addresses at the Cheese and Creamery Meeting, Dairy School, O.A.C., Guelph, on Dec. 5, 1916.

A City Business Run by Farmers

(Continued from page 4.)
 This extracts the casein from the skim milk which is packed and sold in the form of flakes or powder. It is used, I was informed by Mr. Coule, for glossing paper and in the manufacture of such articles as buttons, knife handles, billiard balls. About three pounds of the material is secured from each can of milk, and as high as 18 cents a pound has been received for it.

A full re-rod is kept of the quality of each patron's milk, its butter fat content and its bacteriological analysis. The laboratory which is under the supervision of Mr. J. Jenkins, an O.A.C. graduate, is large, airy and well lighted. The sediment tests are classified as poor, fair, good and excellent, and the patrons are kept fully informed of the quality of the milk which they supply. Nor is this care regarding sanitation confined to the milk as it comes to every possibility of the milk being contaminated by the employees is rigidly guarded against. Each morning they don freshly laundered suits of spotless white. Even shower baths are provided in the basement of the building for them. Here also is found the two 50-h.p. boilers which supply steam for heating purposes. Coal is purchased a carload at a time. The refrigerating plant, composed of three compressors, has a capacity equal to 28 tons of ice every 24 hours. Compressors and all other machinery are operated by hydro-electric power.

The Stables.

For delivering the milk from the express cars to the plant, and from the plant to the consumers, about 100 horses are required, and these are stabled on the property. The barn is a magnificent structure of reinforced concrete; floors, walls, stalls and mangers all being composed of this material. The oat boxes and the doors of the mangers are of iron, and the building is as nearly airtight as a building containing feeding stuffs can be made. The blacksmithing and horseshoeing are done on the premises, and here also the delivery rigs are built and kept in repair. Special facilities are provided for attending to sick horses, for, after war, rapid driving on city pavements is about the hardest work a horse can be subjected to. One interesting feature is a foot bath, in which horses with sore feet are fed.

A Farmers' Company.

And all this plant, rivaling any industrial concern in the city in efficiency, is owned and administered by farmers. The interests to whom the milk producers surrounding Toronto formerly disposed of their product seemed at one time to deny them the right to say anything about the price of their milk. The answer was The Farmers' Dairy. It was not built for a selfish purpose, but, as is clearly set forth in the instructions given to the original investigating committee, its object is to produce and distribute clean milk and cream at reasonable prices to the citizens of Toronto. The interests of producer and consumer are alike safeguarded. Its influence extends to those who neither sell nor buy from it, for the company is now a controlling factor in the milk supply of that great city. To the producer it assures fair treatment and a fair price for his product. To the consumer it guarantees his money's worth. This is a sanitary and reliable article of food. It has prevented a repetition of the trouble out of which it grew. Its aim, emblazoned in gold letters on each side of its 100 delivery rigs, is to deliver "Pure Food Products of the Farm" at the consumer's door.

Under the management of Mr. R. D. Hughes, formerly a clerk in the office, but whose abilities, being recognized by a far-seeing directorate, secured his appointment to the office of general manager, and under the ad-

ministration of an executive composed entirely of dairy farmers, "the spotless dairy bathed in sunshine," as it is proudly called, promises still further developments. Recently, the cheese factory at Indian River, in Peterboro county, has been purchased and converted into a collecting station. Up-to-date machinery, including a pasteurizer, is being installed. Here milk will be collected, pasteurized and shipped, in case, to a central plant, and further facilities provided for securing the increasing supply of milk made necessary by the constantly expanding trade.

The Economics of Agriculture Discussed at Chicago

(Continued from Page 7.)

asked how farmers could reach the greatest benefit from the law. He replied:

"I would urge farmers to organize at once a national farm loan association. The Federal Farm Loan Board has just completed a tour of the country in order to determine the boundaries of the federal districts into which the United States is to be divided. There are to be twelve of these districts. In each district there is also to be located a Federal land bank. These land banks are to make loans to farmers on first mortgage of farm lands. But the loans can only be made at first through national farm loan associations, may form a local association. It is my judgment that the greatest benefit will come to those farmers from the operation of this act who belong to a national farm loan association. Replying to another question, he said:

"The farm loan associations and the Federal land banks which operate with them are run by farmers, and the dividends which may arise from the borrowings of these farmers all come back to them as stockholders in the Federal land banks through their associations. But in joint stock land banks, the dividends go to the stockholders, who are not farmers but money lenders. In the first case, the banks are run in the interest of borrowers; and in the second case, they are run in the interest of lenders."

A Jersey Cow Wins in Guelph Dairy Test

(Continued from Page 6.)


(241.9 points), Martin McDowell, Oxford Centre; Queen E. B. Payne, (240.7 points), and Nellie Payne, (240.6 points), M. H. Haley, Springfield.

Altogether 63 cows were under test, seven more than last year. Of these 17 were Holsteins, exhibited besides those already mentioned, by such well known breeders as Fred. W. Lee, Springfield; R. M. Holtby, Port Perry; T. W. McQueen, Tillsonburg; James Rattie, Burgessville; E. E. Hammer, Norwich; Geo. T. Castator, Weston; Robt. Shillington, Hatchley; and W. J. Bailey, Jarvis. Twenty-one Ayrshires were judged the test, owned by John McKee, Norwich; Wm. Stewart and Son, Campbellford; A. S. Turner and Son, Ryckman's Corners; E. B. Palmer and Son, Norwich; N. Dymond and Sons, Brantford; Harmon McPherson, Copetown; Jas. Beza and Son, St. Thomas; H. C. Hamill, Markham; and E. D. Hilliker, Burgessville. Fourteen Jerseys were entered. Besides the owners of the champion cow, Jersey breeders were represented by Ernest Craddock, Hagersville; D. A. Boyle, Woodstock and B. H. Bull and Son, Brampton. A Stevenson, Atwood, and S. W. Jackson, Woodstock, exhibited. Dairy sires were represented by E. D. Hilliker, W. J. Bailey, E. B. Palmer and Son, G. B. Ryan, Tillsonburg, had grades entered in the test.




ABSORBINE
 FROM MARKS' SCIENTIFIC OILS
 will reduce indurated, swollen Joints, Sprains, Bruises, Soft Bunches; Heals Boils, Puff Swellings, Quittor, Fistula, or any skin ailment with surprising quickness as it is a positive antiseptic and germicide. Pleasant to use; does not blister under bandage or remove a coat of hair, and you can work the horn. 25.00 per bottle, delivered. Bottle 7.50 free.

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 Absorbine and Absorbine, Jr., are made in Canada.



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 Many farmers are buying their seed now for spring. While it lasts, we can supply Seed Grain of 1915 crop at following prices:
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Our 1917 Specials
JANUARY 4TH
GOOD ROADS NUMBER

EVER since its inception, Farm and Dairy has been the advocate and staunch supporter of every reform that would confer a benefit on the farmer. It was Farm and Dairy that launched a campaign in the agricultural press that culminated in the introduction of rural mail deliveries in Canada. Many other reforms also stand to our credit.

Realizing the influence that good roads will have in the dairy industry, we have decided to publish on January 4th a

Special Good Roads Number

This will be a live issue, and will give a comprehensive survey of the whole situation. Such subjects as these will be treated:

"Where Are We At on the Good Roads Question?"
 "How Good Roads Affect Land Values."
 "The Country Road—Its Cost and Care."
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These are only a few of the subjects that will be discussed. As an advertising medium, it will be one of the strongest issues of the year. It will go to almost 24,000 of the best class of dairy homes in Canada. Have your strongest copy in it. Send it along now, and have the choice of position. Last forms close Friday, December 19. Reserve your space NOW.

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FARM and DAIRY, Peterboro, Ont.

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CIRCULATION STATEMENT.

The paid subscriptions to Farm and Dairy exceed 23,000. The actual circulation of each issue, including copies of the paper sent to subscribers who are slightly in arrears, and sample copies, varies from 24,000 to 25,000 copies. No subscriptions are accepted at less than the full subscription rate.

Sworn detailed statements of circulation of the paper, showing its distribution by counties and provinces, will be mailed free on request.

OUR GUARANTEE

We guarantee that every advertiser in this issue is reliable. We are able to do this because the advertising columns of Farm and Dairy are as carefully vetted as the reading columns, and because to protect our readers, we turn over all unscrupulous advertisers.

Should any advertiser herein deal dishonestly with you as one of our paid-in-advance subscribers, we will make good the amount of your loss, provided such transaction occurs within one month from date of this issue, that it is reported to us within a week of its occurrence, and that we find the facts to be as stated. It is a condition of this contract that in writing to advertisers you do not say "I saw your advertisement in Farm and Dairy."

Requests shall not be made by their trade at the expense of our subscribers, who are our friends, through the medium of these columns; but we shall not attempt to adjust trifling disputes between subscribers and honorable business men who advertise, nor pay the debts of honest bankrupts.

The Rural Publishing Company, Ltd PETERBORO AND TORONTO

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

Jeopardizing the Dairy Show

ONE of the most important things in favor of Canadian dairy produce on the markets of Great Britain is the confidence of importers and dealers, as well as of consumers, that it contains no imitation butter or filled cheese. This consideration, the value of which cannot be estimated, and which will become still more important after the war is over, exists because our exports have been kept free from bogus butter and cheese by the restrictions which certain ingredients are now moving heaven and earth to have abrogated. One of the first results of the raising of the restrictions on the oleomargarine trade would be that we would sacrifice that confidence in Canadian dairy products which has been established in the markets of the world by the prohibition of the use of any but butter fat in the manufacture of dairy products.

The Government of Canada will be well advised to take into full consideration and give proper weight to the views of the dairymen of both Eastern and Western Ontario, as they have found expression in resolutions passed unanimously at every meeting or convention in which dairy men have gathered together since the movement for the admission of margarine began. Of late a great deal has been said about the development of Canada's foreign trade after the war is over, and of the necessity of building up in foreign markets good will for the products of Canada's farms and factories. Here is a case in which that goodwill already exists. Is it to be sacrificed because a temporary shortage in butter has given the manufacturing and packing interests an opportunity for renewing their campaign for the admission and manufacture of margarine? Dairymen are fully conscious that the high cost of living is pressing heavily on the consumer, but they have reason to doubt the sincerity of some of those who are at present posing as the consumers' champions. They believe that the benefit

accruing to the consumer by the use of cheaper fats would be a poor recompense for which to sacrifice the integrity of the dairy industry.

Land Values and Social Conditions

THE tendency of the high price of land is to gradually reduce the number of small farm owners and to place increasing areas in the hands of city capitalists who are content with a low rate of interest on the investment, according to Professor Mead, who addressed the National Conference on Marketing and Farm Credits, held recently in Chicago. This means a shifting rural population, less interest in country welfare, poorer country schools, poorer churches, fewer home conveniences, and more unpaired houses, gates and barns. We cannot ignore these tendencies towards rural decadence, and with easy-going indifference allow our farmers to become a rack-rented peasantry, said Professor Mead. We must begin to regard land settlement and the maintenance of the right conditions of tenure of farm lands as a public matter.

The acquiring of farm lands for speculative purposes by investors has not advanced as far in Canada as it has in the United States, in some of the choicest districts of which as high as 50 per cent. of the land is farmed by tenants. There is, however, a tendency in the same direction. Investigations have shown that in those counties of Ontario where land values are highest, the percentage of farms owned by non-residents is largest. The popular misconception that increasing land values are always accompanied by better social conditions for those who farm the land is dangerous in the extreme. They indicate that a heavier charge has to be made on the annual income to cover interest on capital investment if the farm business is to be placed on a business footing. They also indicate that the land is becoming further removed from the reach of those who wish to purchase it, and that the man who would become an owner if the land values were reasonable has no alternative, if he wishes to farm, but to become a tenant.

The Injustice of Pooling

INVESTIGATIONS conducted under ordinary factory conditions, with ordinary factory equipment and from milk as commonly supplied to the factories, have shown that the pooling system may put as much as 22 cents a hundred pounds of milk in the pocket of the wrong patron. The discrimination is always against the man supplying the better milk. To the same who supplies milk that tests exactly the same as the average test of all the milk received at the factory, the pooling system works no injustice, but if his milk diverges from this standard, he does not receive the right amount of money, and the farther the divergences from the standard the discrepancy between what he gets and what he should receive. The patron whose low-testing milk gets more, and the one sending high-testing milk less, than is justly coming to them. As pointed out by Mr. Pablow in his address at the local E.O.D.A. conventions, this discrepancy may not have been an important matter with the prices obtained for cheese years ago, but with the high prices now prevailing, this important matter no longer afford to neglect this matter according to receiving payment for their milk according to the amount of cheese that can be made from it.

Although payment for milk according to its butter fat content distributes the money with approximate fairness, still the production of a high butter fat content is not the only consideration. Even on the straight fat basis it would still be bad business to sacrifice everything to get a high test. The question of cost of production must be taken into consideration. The object to be striven for should be to produce butter fat at the lowest

possible cost. High-testing milk may not be the most profitably produced, even when supplied to factories which pay on the straight fat basis. Put upon a cost-of-production basis, the Dairy Standards Act is not a discrimination against cows producing milk of only average test. That, however, has no bearing on the question of the justice or injustice of the various patrons' milk at the amounts of the various patrons' milk when the pooling system is a manifestly unfair one, and its abandonment can only result in good to the cheese-making industry.

Make War Profits Reasonable

(Canadian Courier.)

AS a rule we have no aspiration too severe for the man or the corporation that fattens itself on war contracts paid for by the people of the country to which it belongs. We have sometimes even become supercilious over the superwealth accumulated by neutral nations at the expense of those peoples engaged in a struggle for the liberty of democracies. In practice it should be possible for the Government so to adjust taxation that men who are suddenly making huge fortunes out of war contracts in any shape or form should be compelled to pay back a large percentage of their profits to the State before they have time to come forward with large cheques in the form of refunds to the State coffers. Let us honor the man who voluntarily refunds a big share of his war profits to the government. That man is concerned in lessening the burden of taxation on those who make no profit directly out of the war. But it is, after all, an act of heroism except in the fact that it is so unfashionable! Should not any corporation be content with reasonable profits out of a line of business created by the demands of the war after paying all charges on the investment necessary to create the plant? The corporation that fattens itself on war contracts in 1916 is no better than the contractors who heaped up enormous fortunes and juggled stocks in gambling on the duration of the American Civil War. Every manufacturer who invested in a munitions plant is entitled to the repayment of his capital in cases where the plant may be on the scrap heap after the war and to reasonable commercial profits on the operations of that plant until the war is over or until such time as his contracts cease. Loss should not be admitted. More should never be expected. The boy of Canadian nickel blown into Canadian soldiers is a small matter compared to the phantom of great fortunes made out of the needs of a nation fighting for its life.

Holland has adopted proportional representation as the method of electing representatives to its second chamber. The measure was passed unanimously. P. R. has similarly been approved unanimously by the British Parliament for Ireland, Belgium, Sweden, Finland, Denmark and other European countries where P. R. has been adopted. It is promised by the President and the Prime Minister for France for the Chamber of Deputies after the war. There is also every possibility of this important electoral reform coming in Great Britain. The Proportional Representation Society of Canada has a big educational work ahead of it; but signs are not wanting that P. R. is coming in this Dominion, too.—Ottawa Citizen.

Thanks to the system of municipal taxation which prevails in Ontario, many an ambitious farmer has built himself into a haunting fear of bankruptcy. The commodious residence that he has put up, with all modern improvements added, the up-to-date barns, do not escape the eagle eye of the assessor, until the taxes of the man who would improve his living conditions soar out of all proportion to his income.—Peterboro Review (Conservative).

The Canadian Council of Agriculture

Farmers Organizations Prepare a Platform—Provincial Organizations Will be Asked to Pass Upon It—Important Decisions Reached at the Recent Winnipeg Conference

CHIEF interest in the recent conference of the Canadian Council of Agriculture, held in Winnipeg, centred around the drafting of an actional policy for the farmers' organization of Canada. This platform was prepared by a sub-committee, discussed later, clause by clause, by the full council, and adopted unanimously with the understanding that it would be submitted to the various organizations for their ratification, as well as to many of the local units and district conventions as possible before being finally ratified as the national policy of all the organizations. Should any of the provincial organizations recommend changes in it, these will be considered at the next meeting of the Council of Agriculture.

In preparing the platform, the members of the Council had in mind the tariff laws, as they now prevail in Canada, bear with undue hardship on the farmer, and that there is great danger that following the war, on account of the need which will then exist for increased taxation, an effort will be made to still further increase the tariff and in ways that will further burden the farmer. In a later issue we hope to give the platform in full. In brief, it set forth that agricultural conditions in Canada have reached a point where it has become difficult for farmers to make a profit from their farm operations. The great success of Great Britain in financing not only her own needs but the needs of many of her allies in the great war was attributed to her free trade policy, which has enabled her to buy in the cheapest markets of the world and thus to undersell her competitors. The platform urged a reduction in the duty on goods imported from Great Britain to half the rates charged under the general tariff, and further reductions in the remaining tariff such as will ensure free trade between Great Britain and Canada within five years.

It also urged that the reciprocity agreement with the United States, which still stands open to acceptance by the Parliament of Canada, should be accepted, and that all food stuffs not included in the reciprocity agreement of 1911 should be placed on the free list, thus helping to reduce the high cost of living. It was further urged that agricultural implements, farm machinery, vehicles, fertilizers, coal, lumber, cement, illuminating fuel and lubricating oils be placed on the free list.

A request was made that the tariff be materially reduced on all the necessities of life, and that all tariff concessions granted to other countries should be extended to Great Britain.

The members of the council recommended that the government would find it necessary to raise increased revenue, as well as to make good revenue that might be lost through reducing the tariff as recommended. In order to provide this revenue, they recommended the placing of a direct tax on unimproved land values, including all natural resources; a tax on all incomes over \$4,000; a heavy graduated inheritance tax on large estates; and a tax on the profits over 10 per cent. of all corporations.

Other important recommendations made included the nationalization of all railway and express companies; that natural resources still remaining in the hands of the government should not be sold, but let out on short-term leases; the publicity of all campaign funds both before and after election; the abolition of the patronage system; full provincial autonomy in regard to legislation, including its manufacture, export and import; and direct legisla-

tion, including the initiative, referendum and the right of recall.

Business Conferences.

Several important conferences were held with representative business men of the West, but as the subjects dealt with were related practically with Western matters, the Ontario delegates did not take much part in them. It was noticeable that the farmers were thoroughly capable of holding their own on all business subjects discussed.

The Council of Agriculture decided to affiliate with the Social Service Congress, representing the leading Protestant churches of Canada, and appointed representatives to act on the council of the conference.

It was decided to press for legislation that will give farmers better chances for redress in the case of live stock killed on the railroad.

In next week's issue we hope to publish a fuller report of the important matters of the Manitoba and Alberta farmers' companies when they decided recently to unite. This amalgamation may have an important influence before long on the farmers' movements of Ontario.

U. S. Laws Against Margarine Coloring

THE United States law against the coloring of margarine states that any person who sells, vendors or furnishes oleomargarine for the use and consumption of others, except to one's own family table without compulsion, who shall add to or mix with such oleomargarine any artificial coloration that causes it to look like butter of any shade of yellow, shall be held to be a manufacturer of oleomargarine within the meaning of the act. The act then goes on to specify that the manufacturer of oleomargarine must pay a Federal tax of one-fourth of a cent a pound if his product is colored and ten cents a pound if it contains color.

There is no mistaking margarine when sold in the uncolored condition. The consumer is protected, for the uncolored product generally sells at from 10 to 15 cents a pound lower than the colored material. By paying 10 cents a pound, the manufacturer simply buys the right to make his product look like dairy butter, and there is not such a large discrepancy between these two articles.

An interesting custom has sprung up by which it is sought to evade the Federal tax. This is done by the consumer to color the margarine after it has been purchased. Certain margarine manufacturers and dealers furnish free coloring matter in capsules, when selling the margarine after the coloring being added to the margarine after being purchased. A strict interpretation of the law has shown that this is permissible when the margarine is for private use, but that it is an infringement of the law against coloration when manufacturers, wholesalers, retailers, vendors and keepers of places where meals are served for pay to color the margarine.

Some of the State laws are out and out opposed to the coloration, since it is stated that the white margarine is the purer it is. By allowing colorations, all sorts of impurities may be added and covered up. One authority sums up the situation by saying: "I can see but two reasons why some dealers and manufacturers want to give them a right to color their product in imitation of butter: one is to charge more for their product, and the other is to give them a monopoly of the butter market."



The Future Prosperity of the Farmers of Ontario

Lies in Mutual Respect, Mutual Confidence AND CO-OPERATION

We have a splendid line of Cutters and Sleighs for the season's trade. They are manufactured by one of the most reliable firms in the Dominion and the quality of the material is A1. Write us for circular and quotations.

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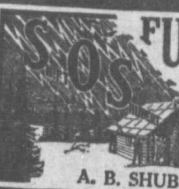
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The Upward Look

Our "New Testament"

THEY word is a lamp unto my feet, and a light unto my path.—Psalm 119: 105.

"Christianity started upon her missions with a book in her hand, but that book was not the New Testament nor any part of it." That book was the Old Testament, which was so precious to Jesus and with which He was so familiar. It was wonderful how our New Testament came to be written; one writing in one place, another in another; one not having any idea what the other was writing, and none of them conscious of the grand work God was calling them to do.

The earliest Christians of Christ's day had not the least thought of any need of writing a chronicle of their Lord's doings and sayings, because they were so sure He was going to return in their lifetime. Why should they write about His lovely life on earth when He was going to appear at any moment and take them up to glory with Him?

With the delay of Christ's coming arose many problems and doubts and questions. St. Paul was the best qualified to answer these. Through the work of the first Apostles the Church had spread wonderfully and Christ had been planted in many and widely separated places. As Paul could not visit all nor be even in one place as much as he wished, he wrote his letters, so sorely needed, for advice and encouragement, and which were kept as a precious possession.

At the same time that these Pauline letters were being written and circulated and cherished, another type were passing through the same process. Those who knew and loved Jesus, who had heard Him speak and saw Him live were passing away. The younger generation demanded the story of the life of Him, whom they had never seen nor heard.

This is a summary of a long and interesting article by Hewlett Johnson, who closes with the words: "Those who wrote did so, unconscious that they were building up an inspired volume greater in importance than Jesus' Bible, eternally stamped with the very spirit of the early Christian enthusiasm, and upon which the Spirit had breathed."—I. H. N.

A Girl Florist

MORE and more women are entering into fields of business and professional life hitherto occupied only by men. What is more, many are making successes in those fields. The florist business seems particularly suited to feminine endeavor. It not only provides a profitable occupation, but also gives scope to the innate love of flowers and faculty of decoration possessed by most women.

In Essex Co., Ont., Miss Gladys Beech has taken up the business because of the love of flowers engendered in her by living among the plants in her father's greenhouses. Although in the business for herself but three years, Miss Beech has built up a very good business. Speaking of her decision to enter this business, Miss Beech says:

"After passing my public school entrance I prepared to go to High School. I went one term, but grew dissatisfied. I really was not learning what I thought should appear to me. My father suggested that I quit school and learn the florist work.

"I had lived among flowers almost

all my life, so this suggestion appealed strongly to me, and I took up the work.

"I started about three years ago, just at Easter time. I have learned a great many interesting things since. One can learn new ideas along all lines when working among plants and flowers.

"I was what one might call a born florist; my father has been a florist all his life. Things came quite natural to me. I thoroughly enjoy all lines, especially cut flowers, funeral designing and decorative work. I never grow tired of this work, and always feel at home with the flowers. It is a healthful, helpful and most interesting occupation, and one that always has something new in it.

"My motto since starting in business has been, 'Never say you can't until you try.' Great obstacles are easily overcome. If one will only square his shoulders and say, 'I will do my best.' I followed the words of my motto and thus accomplished my first trade exhibit."

Partnership Should be Formed

"Busy Mother," Haldimand Co., Ont.

THE subject of how much money a man should have before asking a girl to marry him is a large one, and I can only deal with a few points. As I am treating the subject from the standpoint of girls who intend marrying farmers, I would say that a man should have \$1,000 to start on, some in property, some in stock and some in cash. Of course it depends a great deal on the man, because some men are more resourceful than others.

Then again, if a man has a large sum of money, that does not say that his wife will profit by it, or even have enough of it to buy a new apron or the many things a woman needs. Of course a man may have payments to make and debts which consume the money, but some men are always accumulating more debts and never get ahead. I have known some men who had large sums of money passing through their hands, and yet their wives, who worked even harder than their husbands, according to their strength, did not feel free to take a ten dollar bill from the roll in order to purchase clothes for themselves. Yet these same men would take the cream checks and so forth and consider that they had a perfect right to them. It is a poor rule that does not work both ways. I also know a wealthy farmer's wife who could not get sugar and necessary groceries to live comfortably, making herself an object of unnecessary pity before her friends, while wives of other men comparatively poor, were living comfortably.

I believe when a man marries he should take his wife into his confidence and tell her about his business affairs and not try to do things on the side. Any girl with common sense will endeavor to help her husband, and if she knows that money is passing through his hands about which she knows nothing, she will become dissatisfied.

In paying for the farm, a man should not expect his wife to do without every comfort. I have seen instances of this, and I would say that a man is better single if he cannot provide nourishing food, respectable clothes, good reading material and the occasional inexpensive trip which adds years to a woman's life. Any girl would be willing to marry a man who was paying for his farm if he would be a companion and partner in all money matters, as well as in the social side of life. And girls, when you find a man who comes up to this standard, be sure and get married, for they are rather hard to find.



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Demonstrations of this unparalleled achievement in the leading cities, have proved to the satisfaction of

the greatest musical critics that the New Edison is unapproached in its range of musical expression.

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Practical Styles for Busy People

IMPORTANT NOTICE

Farm and Dairy patterns shown in these columns are especially prepared for Our Women Folk. They can be relied upon to be the latest models and include the most modern features of the paper pattern. When sending your order please be careful to give exact waist measure for adults, age for children and the number of the pattern described. Orders are filled within one week to 10 days at our receipt. Twice of all patterns to Our Women Folk, 10 cents each. Address orders to Pattern Dept., Farm and Dairy, Peterboro, Ont.



THE month of December is one of the busiest of the whole year; it should also be one of the happiest. There are so many things that we want to finish up before the new year for Christmas, and then we are busy preparing these are hurriedly made our Christmas cake and mince-pie (although this year the family and selecting gifts for our friends on our hands, we have not a great deal of time to think of decorating. We looking over the styles and noting the latest features.

The open winter we have had so far has had a tendency to make us feel that our suits may be worn practically all winter. How many of our Women Folk invested in a new suit this fall? The latest wintering shirt, short of contrast, big fur collar and cuffs with fur trimmings. The coat itself in some cases is close fitting with sections flaring from the hips. Some of these peplums are—broader and others are straight and gathered. Smart colors on coats and dresses are often of white broadcloth and flannel. Not falling lace and hems are also much used to finish collars and cuffs.

1881—Lady's Cover-all apron—Here is an apron that certainly bears out its name of being a complete cover-all. Each also used in appearance. Three sizes; small, medium and large.

1884—Dress. Even the frocks for small girls show the large collar of effects and they are very becoming. In child are made from contrasting material to that of the dress. Some of the popular paid materials now being shown would make up nicely from this model.

Four sizes; 6, 8, 10 and 12 years.

1884—Lady's House Dress. More and more, we are coming to favor house dresses of light, washable material for so much more attractive than a dark dress, and can be laundered often, so that we can have the satisfaction of knowing that our outfit is neat and clean.

1885—Lady's Dress. This year, stitching, embroidery and braid are all used as quite prominent. The striping is also a feature of the trimming, but for those who do not favor striping, the dress who fashioned equally well without the striping.

1886—Boy's Suit. Here is a chic suit for the young lad of from six years up to the teen age. Note the neat finish to the sleeves. Five sizes; 8, 10, 12 and 14 years.

1888—Girl's Dress. This dainty little frock would make up a dress for special occasions. Every part of the costume is simple and dainty. The lace effect of 2, 10 and 12 years. Four sizes; 6, 8, 10 and 12 years.

1893-1898—Lady's Costume. Dapper on the skirts are still being restricted with such an extent this season, the costumes. This model calls for two plain, 10 cents for each. The waist is 21 to 44 inches bust measure, and the skirt from 22 to 32 inches waist measurement. The skirt measures about 2 1/2 yards at the foot.

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FIVE ROSES FLOUR

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How many hairs ? has a Bear ?

We doubt if there is any person in Canada who is not interested in Furs, and who does not admire their beauty, softness and warmth; but how many have ever thought of the great number of hairs covered to cover a skin to produce this warmth and softness?

The actual number of hairs on any given skin can be accurately determined by mathematics and an abundance of practice.

We have cut a piece out of a black bear skin, one inch square in size—have sealed and deposited it with the bank and are giving

\$300.00 IN PRIZES

to the 64 persons who are nearest correct in their estimate of the actual number of hairs that one square inch of black bear skin.

This contest is entirely free to every one who complies with the conditions, and we might frankly state that the sole object of this contest is to familiarize as many people in Canada as possible with the wonderful fur which can secure in stylish guaranteed Furs and Fur garments, through Hallam's system of dealing direct "From Trapper to Wearer".

Just send today for a copy of the 1918-17 Edition of

HALLAM'S FUR STYLE BOOK

on the back cover of which are full particulars of this Zoological contest.

This 1918-17 edition is a handsomely printed 32 page book and sets and will show you how you can save many dollars to-day and have a free chance of winning this \$300.00. Be sure to address as follows:

John Hallam 509 Hallam Building
Limited TORONTO

RAW FURS
We are the Largest Cash Buyers of Raw Furs direct from Trappers in Canada—Our Raw Fur Quotations sent Free.

GUNS
Traps—Animal Bait, Fish Nets, Traps, and complete list of sportsman's supplies, at very low prices. 32 Page catalog free.

Commendable Features of the Dairy Standards

Notes From an Address by G. G. Publow, Chief Instructor for Eastern Ontario, at the Local Dairy Conventions Throughout the District.

Is the pooling system a fair method of paying for milk at cheese factories? Investigations that have been conducted during the past season have shown that on the average the pooling system is 18c out for every 100 lbs. of milk paid according to it. There is, however, a system for paying for milk which is as fair as we could reasonably expect. The same investigations showed that on the average, with milk paid for on the fat plus two basis, the money was distributed within seven cents a 100 lbs. of milk of the correct amount that each patron should receive; while on the straight fat basis the amounts distributed were on the average only three cents out on each 100 pounds of milk.

The fact is that we got started wrong. Before we found our error the pooling system became strongly entrenched. The adoption of a fair system has been hindered by the disagreements amongst dairy authorities. When cheese was five, six or eight cents a lb. it did not matter so much if there was a little inaccuracy in the distribution of the money. Now, with cheese ranging from 20c to 25c a lb. on country boards, this matter of the proper distribution of the money becomes a serious matter indeed. With the pooling system, those who send in milk that is exactly the average of that received at the factory may get their fair share of the proceeds, but if they vary from this average even a point or two, their returns are seriously affected. At the present prices these small variations mean a great deal. It has been found that one pound of butter fat in milk is equivalent to two and one-half lbs. of cheese. A small variation will easily account for wrong payment of 10c or 20c for 100 lbs. of milk. We

fine a man for adulterating milk, even though he brings it down to three per cent, but if a man can devise a means of watering the milk through the cow, he escapes, even though his test is as low as 3.4 per cent, as it has been in several individual cases in our factories this summer.

Some of the lowest testing milk that comes to our factories is from scrub cows. Some breeds test lower than others, and when the milk is paid for on a quality basis, the amount of the content affects the amount paid for it. We should not forget, however, that the question is not how many pounds of butter fat we can produce with each 100 lbs. of milk. The question is, how can the butter fat in the milk be produced most profitably. The three per cent. cow may be a profitable one. Producers should aim to raise production and the test, too. If this Act results in the raising of the fat content of a per cent, what an enormous difference it would make on the total cheese output of the province. The increased returns would pay for and that is the way to look at it: will the benefit more than counterbalance the cost and inconvenience? But in this connection we should always remember that the individual is not held back by the average of his district.

One of the benefits of the Dairy Standards Act will be that the milk that comes to our factories will be better cared for. A few years ago Mr. Barry and myself went to the Minister of Agriculture and asked for legislation to keep down the temperature of milk received at factories. Our request was refused, because the Minister thought that they could not legislate on such fine points. Now that we will be paying by test neglect will be penalized, because neglected milk does not test as well as well-cared-for milk.

After the Dairy Standards Act was passed, a census of the factories was taken to find out how they were prepared for it. It was found that less than one-quarter of the factories were equipped with apparatus for making the test, and that less than one-quarter of the makers were competent to conduct it. As a result of this census, the late Minister of Agriculture took steps to have the test done by the instructors, with the assistance of other qualified men if they are required. The testing will be done at a centre, but more cheaply to wash the bottles and of having each of being able to secure cheaper labor-man conducting the test. This would be offset to some extent by too much driving around the country in collecting the samples. Then the instructor would have an opportunity of improving his work of instruction by working in closer cooperation with the maker while making the test.

The objection that is sometimes raised at there is a temptation for other men in order to prevent a man from going to another factory, may have applied to conditions under the old system, but they will not apply under the new. By making the use of the test universal throughout the province, discrimination between factories is done away with.



40th Annual Convention of the Dairymen's Association OF EASTERN ONTARIO

WILL BE HELD AT

Napanee, January 4th & 5th, 1917

COME and be one of us for these two days. You will be well entertained, and will profit by meeting others in the same business as you are, and in hearing such men as these speak on your problems:

- Hon. Martin Burrell, Minister of Agriculture.
- Prof. J. H. Grisdale, Ottawa.
- Mr. G. G. Publow, Dairy Instructor, Eastern Ontario.
- Dr. G. C. Creelman, President O. A. C. Guelph.

These men, and many other recognized authorities, will speak on various phases of the dairy industry. Bring the ladies with you. They are specially invited to attend the evening meetings.

Write to the Secretary for a programme and prize list.

J. N. STONE,
President.

T. A. THOMPSON,
Secretary, Almonte.

Lakeview Dutchland Hengerveld 2nd THE GRAND CHAMPION
Holstein-Friesian bull at the Canadian National Exhibition and Western Fair heads our herd. His sister three-year-old three-quarter sister is Canadian champion, with 34.6 lb. butter in seven days. BOTH CHAMPIONS. This is our motto: "Bested for type and production." Choice young bulls out of high testing R.O.M. dams for sale. Write for extended pedigree and prices.
W. G. BAILEY, Oak Park Stock Farm, R. R. No. 4, PARIS, ONT.

HOLSTEIN S
Could spare 10 cows or heifers bred to the Great Bull KING SEGIS POND. Down. Myrtle, C.P.R. Manchester, Q.T.R.
R. M. HOLBY,
Port Perry, B. R. 4

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

RIVERSIDE AYRSHIRES
calves male and female; bulls fit for service; by Netherington Lochivar, Imp. 23421. Females all ages, from 1st Prize stock and good producers. One Standard Bred Stallion 16 months, by His Nibs 294, "65900".
Apply to Robert Sinton, Manager Riverside Farm, Monto Bello, Que.
Or to Hon. W. Owens, Westmount, Que.

TANGLEWYLD AYRSHIRES
The Leading R. O. P. Herd
Large Cows, Large Teats, Large Records, High Testers. Choice Young Bulls and Bull Calves and a few Cows for sale.
WOODSIDE DRYS., R. E. 80. 1, BARRFIELD, ONT.

STEVEN'S POTASH FERTILIZER
destroys wire worms, Cuckoo-beetles, white grubs, cut worms, army worms, Oryza moths, brown-tailed moths. Address
GEORGE STEVENS
Peterborough, Ontario, Canada

DEAL WITH Farm & Dairy's Advertiser

When You Write--Mention Farm and Dairy

Assignee's Auction Sale
Of a Dairy Plant Rolling Stock, Etc.
In the matter of W. A. CHARBOIS, of Ottawa, Insolvent

Under instructions from the Inspectors of the above estate, I will offer for sale by Public Auction on the premises, 355 1/2 Leblond Street, Ottawa, on Wednesday, the 19th day of December, 1916, at two o'clock p.m., the assets of the estate consisting of 1 Laido refrigerator, 1 plant, 2 pasteurizers, 1 cream separator, 2 electric motors with shafting pulleys, etc., 1 bottle filler, bottle and can washers, 1 steam boiler and attachments, 1 can bottling bottles and cases, also 7 horses; 1 milk wagon, 2 express wagons, 2 sets both single and double and single harness, blankets, etc., and also a miscellaneous lot of other articles, usual to anyone in the dairy business.

This dairy business was in operation only a very short time and the goods are said to be in good condition.

Terms of sale cash.

The plants, rolling stock, etc., raised to be inspected any time upon application at my office.

WM. A. COLE, Assignee, 35 1/2 Sparks St., OTTAWA.
SEGUIN & SAUVE, 18 Bloor St. W., OTTAWA.
Solicitors for Assignee.

WELLCARLTON TORONTO
The House of Comfort
American Plan \$2.50 up
European Plan \$3.00
Meet Me at the Cavalier-Rite

Your Start

With Holsteins for 1917

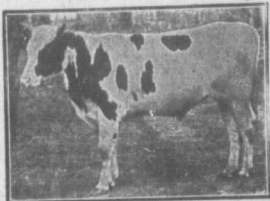


Grace Fayne 2nd Sir Mercena.

2nd. They are bred in the purple and to the purple, cream to sell.

We also offer our Sr. Herd sire Grace Fayne 2nd Sir Mercena. He has proved himself to be a wonderful sire. We have, too many of his heifers in our herd to profitably use him. He is sired by the same bull as Sir Bell Fayne, who was Sr. and Gr. Champion at Toronto and Ottawa in 1915. He is a half-brother of Colantha Butter Girl, 30.87 lbs. butter in 7 days. He was 1st in the yearling class at the Canadian National in 1912.

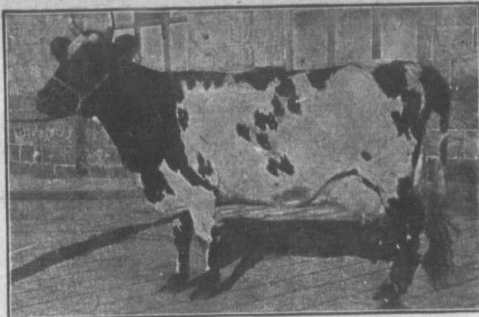
Write or call at
Clear View Farm,
ANTHONY GIES,



King Segie Alcartra Catamy 2nd.

Waterloo, Ont., R.R. No. 1.

U need cows of good breeding and producing ability. We have them and they are for sale. Twelve heifers sired by Inka Sylvia Bos (a half brother of May Echo Sylvia) and bred to our Sr. Herd sire Grace Fayne 2nd Sir Mercena. Six heifers bred to our Jr. Herd sire King Segie Alcartra Catamy



Scottie's Nancy 2nd.

The Ayrshire cow who scored the highest for that breed in the dairy test at the Winter Fair, Guelph. Owned by John McKee, Norwich.

A CANADIAN HOLSTEIN IN NEW ZEALAND.

THE following letter has been received by Messrs. A. D. Foster & Sons, Prince Edward Co., Ont., from Prof. H. North & Sons, Beaufit, Otago, New Zealand, to whom they sold Berrisville Sylvia Pouch at one year of age. The trip from Prince Edward county to New Zealand took over two months, and about nine months after her arrival she commenced her first year's test work, winning the champion two-year-old record for yearly production for New Zealand. The letter is as follows:

"In reply to your enquiry as to the milking performance of the Holsteins I wish to inform you that the Berrisville Sylvia Pouch, bred by yourselves and now owned by us, I have pleasure in furnishing the particulars of the Director of Dairy Industry of Agriculture, Wellington, N.Z.:

Calved.	Lbs. milk.	butter fat.
1 yr. 279 days	18,640	505.27
3 yrs. 29 days	13,924.7	510.42
4 yrs. 62 days	is again under official test.	

"At present she is giving over 70 lbs. milk a day at 3.4 test. No special grain rations are used, as the winter weather here is not severe like the Canadian winters. To supplement the natural feed, we use bran, cut chaff and pulped turnips mixed. She has now become acclimatized, which usually takes about one year and 11 months old, which, as you know, is a serious drawback to any cow. The weather conditions, too, on this part of the east coast have been

very unsuitable for dairy stock up to date, ever since these cattle arrived. We thank you for photo of your young stock bull, and would esteem it a favor if at some time in the future you would let us know the quantities for one year of milk and butter fat given by the fastest daughters of Inka Sylvia Bess Pouch."

GOOD R.O.P. WORK AT MERRICKVILLE, ONT.

M. R. J. C. JAKES, Merrickville, Ont., writes us as follows regarding the tests his bulls have been making:

"Just a few words as to our first year's R.O.P. work, which was finished last spring. We entered five mature cows and two 2-yr.-old heifers, and got the following results: Emma of Evergreen (8334), milk, 15,000 lbs.; fat, 677 lbs.; average, 2.95% fat. Jennie Abbecker De Kol 3rd (8215), milk, 17,094 lbs.; fat, 816 lbs.; average, 3.03% fat. Lady Waldorf De Kol 3rd (8219), milk, 17,458 lbs.; fat, 866 lbs.; average, 3.11% fat. Violet of Clear Spots Farm (6329), milk, 15,754 lbs.; fat, 709 lbs.; average, 3.23% fat. Beauty of Evergreen's Puss (5230), milk, 15,511 lbs.; fat, 477 lbs.; average, 3.07% fat. Rose Starling De Kol (7219), 2 yrs. 20 days; milk, 10,374 lbs.; fat, 352 lbs.; average, 3.55% fat. Susan Biddle De Kol (7172), 1 yr. 346 days; milk, 10,323 lbs.; fat, 323 lbs.; average, 3.22% fat.

The young bulls we are offering in this issue are backed up by some of those cows. We have five 2-yr.-old heifers running in R.O.P. this year, and find it very interesting work, and feel quite satisfied that it is well worth the time it takes to do it.

HIGHLAND LAKE FARMS

Offer for sale at attractive prices a few choice bred Holsteins. No. 1—A yearling son of a 34 lbs. bull and a 20 lb. 3 year old prize. No. 2—A yearling son of a 24 lb. bull and a 16.21 lb. 2 winning cow. No. 3—A 5 months son of a 24 lb. bull and a 19 year old granddaughter of King Segie. The dams of these bulls are in our yearling herd, and will be tested again at next freshening. Write for printed pedigrees. We also have for sale a few females bred to our herd sire, KING SEGIE PONTIAC CANADA.

R. W. E. BURNABY (Farm at Stop 55, Yonge St. Radial) Jefferson, Ont.

FOR SALE

A number of pure-bred Ayrshire cattle. Apply to H. C. ROBLIN - Ameliasburg, Ont.

FOR SALE

1 extra good Clyde Team, weight 3,800 lbs., 6 and 7 years old. Also 2 very choice registered Clyde Steers, 2½ years old, weight 1,350 lbs. 2 pure-bred Durham Cows, in calf to Willowdale Farm's 15,800 bull. F. M. PASBOW - Euston, Que.

Lyndenwood Holsteins

Bull calves from 8 to 11 mos. old from official testing dams; also choice young cows and heifers with large official records or from record dams. Prices reasonable. W. J. BAILEY - JARVIS, ONT.

Fernbrook Ayrshires for Sale

Bulls from 8 to 12 months old, out of dams closely related to the two greatest Ayrshire cows in the world, Garclaugh May Mischler and Jean Armour. COLLIER BROS., Beachville, Ont. Oxford Co.

FORSTER-CREST HOLSTEINS.

If you wish to raise 30-lb. cows, buy a grandson of the great Louis Keyes, 35.5 lbs. of butter in seven days, 145.29 lbs. in 30 days, 121.3 lbs. of milk in 1 day. We have 4 bulls from 8 to 14 months of age, good individuals. Young stock of this breeding will be heard from. For prices, etc., write: R. B. BROCK, R.R. 5, Simcoe, Ont.

Fairmont Holsteins

Young bulls for sale, all sons of the great King Segie Alcartra Catamy, whose ten nearest dams average over 30 lbs. butter and nearly 40 per cent. fat. All from good record dams; one from a 22,000-lb. granddaughter of Colantha Johanna Lad, at prices that will sell her. Also cows and heifers bred to King.

PETER S. AREOGAST
R.R. No. 2, Mitchell, Ont.

Holstein Cows Excel All Others

Proof is Found in 100,000 Official Tests For Profitable Yield of Milk, Butter and Cheese. No Other Breed Can Equal Them For the Production of High Class Veal. When An accident Ends Their Usefulness Holsteins Make a Large Amount of Good Beef. W. A. CLEMENS, Sec'ry, H. F. ASEN, St. George, Ont.

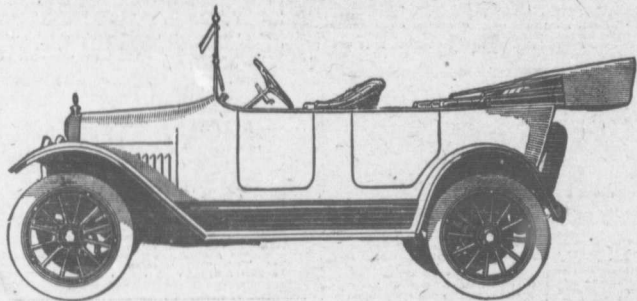


Midnight Comet Dekol.

The Highest scoring Holstein cow in the dairy test at the Guelph Winter Fair. She was three-year-old champion at the same show in 1914. Owned by Jas. Currie & Son, Ingersol.

Maxwell \$850

F. O. B. WINDSOR



It's Simply Common Sense—

—to save money when you can do so without sacrificing on the article you purchase!

Would you pay one hundred and fifty dollars per acre for land, if you could buy another farm just as good for one hundred dollars per acre?

It's a foolish comparison—yet many people do not seem to realize that it applies to the purchase of a motor car.

We claim—and our owners back us up—that the Maxwell offers the utmost motoring satisfaction. It gives appearance, comfort, convenience and performance.

Yet the price is several hundred dollars lower than you would pay for other cars offering the same advantages.

You can't pay less than the Maxwell price and secure a real car—and it is foolish to pay more.

The Maxwell is the Common Sense Car—it offers you the greatest value—the greatest satisfaction—and at a first cost and operation expense that eliminates any thought of extravagance.

Get acquainted with the Maxwell. See for yourself how complete it is—ask our dealer in your locality to demonstrate what it will do. If you do not know the Maxwell representative, write us, and we'll tell you about him.

Write for Catalogue C-7



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