

FARM AND DAIRY

AND

RURAL HOME

(K)
Grisdale J. H.
C.E.F.

PETERBORO, ONT. SEPTEMBER 16, 1909



THE PURE MILK COMMISSION THAT IS WORKING FOR A WHOLESOME MILK SUPPLY

Ontario's Milk Commission, the members of which are shown in the illustration, have recently completed a tour of inspection, including New York, Ithaca, Rochester, Syracuse, Albany, and Chicago, and several Canadian cities and towns. The members have sought to acquaint themselves with the most up-to-date methods adopted by the largest cities in handling the dairy business and safeguarding the health of the community. Several visits are yet to be made to centres in Ontario. Recommendations to be made by the Commission will in all probability be embodied in legislation at the next session of the Legislature. Reading from left to right, those in the illustration are: J. R. Dargavel, Leeds; W. Bert Roadhouse, (sec.); Dr. R. A. Pyne, (chairman); W. B. Nickle, Kingston; and F. S. Macdiarmid, West Elgin.

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Drainage Survey Demonstrations

Greater interest than ever is being taken in drainage work. Calls for assistance in laying out drains have been far in excess of those made in previous years and the representatives of the physics department of the Ontario Agricultural College have been unable to meet all the applications received. Mr. W. R. Reek, who has had two years experience in connection with survey work under the direction of the College has for the last few weeks been making a tour of Eastern Ontario laying out drains and giving demonstrations for the benefit of those in the vicinity where a survey was made. On Friday, Aug. 20th, Mr. Reek and Mr. H. C. Duff, of the branch office of the Department of Agriculture located at Norwood held a most successful demonstration on the farm of Mr. G. A. Brethen, a short distance from Norwood. Mr. Brethen is one of the competitors in Farm and Dairy's prize farms competition. Part of Mr. Brethen's farm is of a mucky nature and low. Mr. Brethen has had in mind draining this land for some time but without the assistance of expert advice he was deterred from laying out a system of drainage. Promptly on the appointment of the representative in Peterboro County, Mr. Brethen applied for assistance with the result that the survey work was completed and the demonstration previously noted, held.

UNDERDRAINS IN EAST
Mr. Reek at the outset gave an address outlining the advantages of underdrainage and methods of installing the drains. He illustrated what he had to say by referring to his observations in various counties where he had done similar work. He instanced one case, where drains had been placed too far apart. The corn on that particular field showed distinctly where the drains had been installed. For a distance on either side of the drains, the corn was making a most luxurious growth.

Farther away, beyond the reach of the drains, the corn was a sickly yellow, showing that the drains had been put in too far apart, an instance of what drains had done in Kent County was also cited. On a farm there, land that was underdrained yielded 36 bushels of beans to the acre. Undrained land adjoining, yielded but three bushels. As a result of this remarkable case, 16 car loads of tile were purchased and installed in that district in the following year.

ENGER FOR INFORMATION

Interest ran high at the demonstration. Much of the land in Peterboro County is in need of underdrainage and those in the vicinity were quick to recognize the value of the information before them where this work was being done. Although at the height of harvest, some 20 farmers laid off work to inform themselves as to the scientific method of installing underdrainage. Questions were asked from every side and were readily answered by Mr. Reek, who is, from his scientific training and from his long experience, an expert in just such work. Questions concerning the proper distance apart for drains, the size of tile that is necessary for different localities, methods of installing systems, the cost of underdrainage, the value and the return from drainage depth and manner of digging, ditching plows, and questions concerning the use of labor saving devices used in drainage work regarding the drainage laws, were freely asked.

Mr. Duff, the District representative, in so far as he is able will conduct similar work and give demonstrations in underdrainage at various points in Peterboro County, doing the work in the order that applications are received. Those within reach of any of the eleven branches of the Ontario Department of Agriculture should avail themselves of any oppor-

tunity that presents itself at any of these drainage surveys to gain information, or should their land be in need of drains, application should be made to the local representative of the Department or to the Physics Department of the Ontario Agricultural College from whom assistance can be had.

Necessary Information

Most farmers can estimate closely the number of bushels of grain raised, and tell fairly accurately the number of tons of hay grown, but when it comes to the really most important income of the farm, the product of each cow it's all a blank, and my say, "Oh, I don't know." I get my cheque each month, that's all I care about."

While a knowledge of the total weight of milk delivered from the factory is necessary, it never occurs to the farmer the information he stands in need of as to the profit made by each cow in the stable. That information is absolutely necessary to him if he desires to consider himself creditable to his profession, a first class, business-like dairyman. Otherwise these satisfying totals or delusive averages will continue to leave the one or two poor cows in every herd to consume good feed for which no profitable return is ever given.

In many herds where no attempt has been made, there is frequently to be found a difference of \$30 or \$40 in the earning power of the best and poorest cow. Farmers need to consider that statistically. In the Dominion are to be found herds, let us say of 12 or 14 cows, with a fairly good average yield of perhaps as high as 5,500 lbs. of milk, where the highest yield is close on to 8,000 lbs. milk and 330 lbs. of fat, while where the lowest yield is only about 3,700 lbs. milk and 150 lbs. fat. Such comparisons are only made possible by noting the actual performance of each individual cow for her full milking period. Weigh and sample regularly, and make sure that each cow brings in good profit.—C. F. W.

Ontario Honey Crop Report

The committee met at the Exhibition grounds, Toronto, Sept. 23rd, and examined the reports as received to date in respect to the buckwheat honey crop and prices received for white honey. The crop of dark honey is good, but the committee find that the markets are clear of last year's crop and that they are buying freely already. The following prices for dark honey are advised:

Wholesale, 6c. to 6½c. a lb.
Retail, 7½c. to 8½c. a lb.
A number of the largest producers have already sold at these figures. In regard to white honey, the committee find that the prices sent out in their previous report have been fully realized and think that they still holding part of their crop should receive these prices without difficulty. Practically everything has been sold at from 10c. to 11c. Post and Halton report most of light honey disposed of, much of it going to the Northwest.—P. W. Hodgetts, Sec'y.

Items of Interest

The annual convention and the Winter Dairy Exhibition in connection with the Western Ontario Dairy-men's Association, will be held in the city of St. Thomas Jan. 12th and 13th, 1910.

The imported carriage team, owned and exhibited at the Coloursburg Summer Show by Hon. J. R. Stratton, of Peterboro, and who was illustrated in Farm and Dairy September 2, has been sold for immediate delivery to a gentleman in the Canadian West, the purchase figure for the team being \$4,000.

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Vol. XXVIII.

FOR WEEK ENDING SEPTEMBER 16, 1909.

No. 37.

WHAT COW TESTING IS DOING FOR THE FARMERS OF SOUTH LANARK

F. C. Nunnick, Perth, Ont.

It is emphasizing many facts of importance, chief among which are the difference between thinking and knowing, the value of supplementary feeding while on pasture, and the wide variation that exists in the production of individual cows

In order to be able to see marked changes and benefits accruing directly from the work of a cow testing association one must see the results of an association which has been in existence for some time. The benefit a farmer receives and which he is able to make of practical value to himself does not come from one summer's testing, but from many years of careful weighing, testing, weeding, breeding and feeding. As the South Lanark Cow Testing Association has been in existence for but a short time, this being only the second season, the greater results have not as yet been obtained.

There have, however, been emphasized many facts of great importance. One of the first things we have learned is that without the actual weighing and testing there is a good deal of uncertainty and guess work in connection with our dairy operations. Very often the cow which we think the best in the herd is by no means deserving of this distinction.

KNOWING VS. THINKING.

One man while in conversation with the secretary a short time since, stated that he was very much surprised to find how mistaken he had been in his idea of which cow gave the most milk. Now this is an all important point, for many farmers are apt to breed from the cow which they think but do not know is best. When the farmer knows which are his best cows, he can then begin to weed out the poor ones, breed from the best ones and build up a herd which will not consume any more feed or take any longer to care for, but will produce more milk; in fact the increase may be just the difference between profit and loss, or if his herd was a paying one before, the increase will be clear profit.

There is already evidence of great interest being taken in this process of selecting out the best. In a few years there will be a great improvement in the averages of the dairy herds of this section, resulting from such selection.

VALUE OF SUMMER FEEDING.

Another very important point to which we had our attention called is the value of summer feeding. Here are some figures taken from the July sheets. The first figures are 50 lbs., 23 lbs., 28 lbs., being the weights of milk for the 9th, 19th and 29th of July, respectively, of a cow belonging to a man who did not have a silo and did no summer feeding. Now here are some figures taken from the July sheets again of a man who has a silo and saved some silage for summer feeding, when the pastures were short. The figures are 92 1/2 lbs. for the 9th, 80 1/2 lbs. for the 19th and 30 1/2 lbs. for the 29th. July, for the most

part was very dry, there being scarcely any rain until the 22nd, when we had a general three days' rain.

NOTABLE VARIATIONS EXPLAINED.

It will be noticed that in the first instance the milk yield fell from 30 lbs. on the 9th to 23 lbs. on the 19th, then increased again to 28 lbs. by the 29th after the rain. In the second instance it will be seen that there was very little fluctuation in the yield right straight through the month, due entirely to the fact that the pasture was supplemented with silage. Now, some may think that these are extreme cases, but they are not. They are neither the highest nor the lowest, nor do they show the greatest variations existing, but rather they show just about what the differences

splendid practice and one which can be followed by almost every farmer.

BENEFITS FROM THE ACTUAL TEST.

We have spoken chiefly of the benefits derived from a correct knowledge of the weight of milk produced by each cow, being able to see the period of falling off in weight, etc. Now let us briefly outline the benefits derived from the actual test. The cheese factories here run for about six months in the year and pay by the pooling system, hence the importance of keeping up the weight of milk turned in. On the other hand there are several months when the milk is made into butter. This is when the amount of butter fat is of most importance. Here let us again look at some figures. In a herd of 18 cows one cow gave 900 lbs. of milk during May testing 2.8 per cent fat, making a total amount of fat for the month of 26.88 lbs. Another cow in the same herd, during the same month, gave 880 lbs. of milk testing 4 per cent fat, or a total for the month of 35.20 lbs. butter fat. Some might be tempted to breed from the cows giving the most milk, but we must take into consideration also the fat producing qualities if we are to select most intelligently and profitably. Then, having the records in both weights of milk and butter fat, and they are great guides, we must combine patience and care in selection in order to build up and establish herds which will make the greatest returns. A herd averaging a good yield of milk testing say 3.5 per cent fat is more profitable than a herd of extremes and there is no reason why the average of every herd in the Association cannot be raised, and the belief it will be raised.

A CONCLUDING WORD.

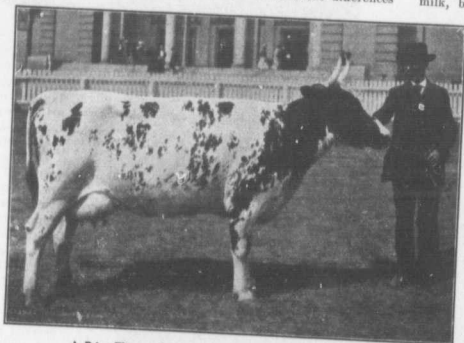
Now, just a word to those contemplating the organization of a cow testing association or the joining of one. Do not expect results too soon. Have patience. Be willing to spend some of your time towards raising the standard of your herd and incidentally to the raising of the standards of the dairy products of your whole community.

Succulent Feed for Winter

T. H. Dinwiddie, B.S.A., Carleton Co., Ont.

Pasture is the cheapest and most economical food we have, but it has been rather scarce at times this past summer, besides it is of very little use in winter. It should be the aim of every farmer to grow some succulent crop for winter feeding so that the grass, to a certain extent, may be replaced. There is nothing that can equal corn well sated in the silage form for this purpose. True, roots are succulent and are very good, in fact excellent, but as factory men dare not feed turnips. Mangels are excellent and do not taint the milk, but unless the tops are left on the land they deplete the soil.

Corn gives us a larger yield per acre than do roots, and with corn we get the grain, which is very valuable and increases the feeding qualities of our silage.



A Prize Winning Ayrshire at the Canadian National Exhibition

This four year old Ayrshire cow, Annie of Warkworth, E.483, owned by A. Hume & Co., of Menie, Ont., won third prize at the Toronto Exhibition last week. As a two year old she qualified in the Record of Performance class record of 5,670 lbs. of milk, testing over 4 per cent.

are throughout the association between those receiving silage or green feed and those depending entirely upon the pastures. This will no doubt forcibly illustrate the fact that summer feeding pays and pays handsomely, for very seldom will the milk flow come up again to what it was before a big drop, caused by dry weather and short pastures.

SECOND SILOS FOR SUMMER FEEDING.

There are already in the County many silos, and a great many more are going up this year. Some of these being built this year are for farmers who before had none and a good number of farmers are putting up second silos on their farms as one will not contain sufficient silage to winter feed and summer feed as well.

Quite a number sow oats and early corn for feeding when the pastures are short. This is a

Pointers for Alfalfa Growers

By Glendinning, Ontario Co., Ont.

The new seeding of alfalfa has taken exceptionally well this year. The "catch" has been better than either red or alsike clover on similar land. This is probably due to the fact that the roots of the alfalfa penetrate more deeply into the soil than in the case of other clovers. F. D. Coburn in "The Book of Alfalfa," mentions that Prof. W. P. Headland, of Colorado, found roots nine feet long from alfalfa only nine months old. Another writer reports alfalfa roots as being 17 inches long on plants of but four weeks growth and the plants being but six inches high.

Two fine crops of alfalfa have already been secured this season. It is making rapid progress towards a third cutting. More alfalfa hay was cut this summer in Canada than ever before. Many cut it for the first time. Some may have not had yields equal to what they have been led to believe was an average crop. These people must bear in mind that it is not until the third year that one can cut a full crop.

Notwithstanding all advice given regarding not to pasture the alfalfa fields, we find new beginners having secured a fine catch, turning their stock upon the fields, as the plants have made such a rapid growth. When remonstrated with they will say, "Why it is making such a rapid growth and so much feed is going to waste that I don't think it will hurt to pasture it."

They should bear in mind that they are new at the business. The rapid growth that the plants are making during the warm weather will not continue when it becomes cold and when the days become shorter. It is safe to say that 90 per cent. of all the failures in growing alfalfa come from pasturing it.

A Question of Importance

A. C. Hollman, Waterloo Co., Ont.

The August 5th issue of Farm and Dairy contained an editorial, headed "Sow Thistle Must be Checked." This editorial is most timely and I hope that every reader of Farm and Dairy has read it. It is a good plan for editors of agricultural papers to take occasional trips through the country and see things as they really are. It would also do a world of good if more of our farmers would do the same thing, as well as our representatives in the Legislature in order that they may fully realize to what extent the perennial sow thistle has claimed the ground and the damage it is doing to this country. I wish that every one could see this problem through the eyes of Farm and Dairy's representative. They would get alarmed and it would carry conviction. I can endorse every word that was said in that editorial; they are my sentiments and I would put a clincher on every sentence, so strongly do I feel in this matter.

GOVERNMENT ACTION REQUIRED

Sow thistle has gotten past the stage where even the most vigorous campaign of instruction on eradicating this most troublesome weed will be fruitful. Educating the people by moral persuasion through the press, or through our Farmers' Institutes, is not enough. Much good can be done through both mediums and must be done most vigorously and at once. As Farm and Dairy's representative puts it, "Unless some definite action is taken by the Government to check it, sow thistle will soon be as widely known and more common than the Canadian Thistle." I am of the same opinion that the Government has to step in and rule with an iron hand to check this pest, which is the worst and most dangerous weed that we have in Canada.

After watching the growth and habits of sow thistle for the last seven years, I have come to this conclusion: The root is most stubborn to destroy and the seed which is very fertile and abun-

dant is easily carried by the wind to adjoining fields. Farmers located on water courses, through the carelessness or thoughtlessness of one farmer in allowing a patch to go to seed may infest a whole community.

A GREAT PROBLEM

How to exterminate sow thistle has been the great problem with many good farmers, and the question has been freely discussed through Farm and Dairy. There is a way of destroying this pernicious pest and to do it quickly, but persistence and eternal vigilance has to be the watchword. We must bear in mind that it propagates easily from root and from seed. In the first place, it must be kept from going to seed. This will confine its propagating to the roots. The roots are very similar to couch or quack grass, full of joints or sections and running mostly in a horizontal direction, they throw out numerous new

they will succumb to the heat and be destroyed. They cannot stand the hot July and August sun.

In this article I have not endeavored to discuss the methods of eradication at length, but rather to draw the attention of the public to the alarming nature of the perennial sow thistle. Some drastic measures, such as Farm and Dairy mentions are in force in Manitoba, will have to be enacted by the Government. Such measures may seem a hardship, but they will be to the best interests of the country. Definite action is required at once. It cannot come any too soon.

Fall Ribbing of Land Recommended

J. W. Mann, Leeds Co., Ont.

Many ask, "Is there any advantage in ribbing land in the Autumn?" To answer this question one need only mention that land cannot be ribbed



A Co-operative Combined Cheese Factory and Creamery in Friesland, Holland.

A glance at this building and its surroundings, tells us much that accounts for the success of Old Country people as dairymen. There is much depicted above that our factory owners may well copy, and which would work a great uplift in our dairy industry.

plants and these so thickly that they choke out all other plants.

In my experience, any attempt to destroy sow thistle in early spring or late fall is useless. Sow thistle roots though they be exposed all winter to the action of the frost and cold winds, will, when the spring rains and warm sunshine come, show signs of growth and unless very dry hot weather follows will grow again.

SHORT ROTATION AND LIBERAL CROPS

To eradicate sow thistle a system of short rotation is necessary and such crops selected as will prevent the thistle plants maturing seed. Where whole farms are infested, a bare summer-fallow for part of the farm will be the quickest way to get rid of them. They can be held in check with a hoe crop, but it means hard and persistent labor. Sow thistle will not spread in a hay field, the grass being cut before the seed matures. Such fields plowed early after haying can be given a pretty thorough cultivation till late fall when most all plants will be destroyed. Where fall wheat is grown, such land well prepared, will also keep them in check, the wheat being cut before the plant matures.

Rape or buckwheat are the two best crops to eradicate sow thistle. They both grow very rapidly and to such a density that sow thistle is smothered out. The advantage with the last named crops is that they can both be sowed late.

Good plowing is very essential to begin with. The roots running in a horizontal manner are easily thrown on top where with the hot sunshine

or drilled properly unless put in the very best state of cultivation. Very few in Eastern Ontario summer fallow their land. They depend upon a corn crop to clean the ground. When a corn is taken off it is usually too late for ribbing as the ground is wet and cannot be put in proper shape. August and September are usually the best months for summer fallowing. Many have been in the habit of simply plowing the land once and that late in October. In consequence, their land has become overrun with thistles, weeds and couch grass.

A practice much more to be recommended is as follows: as soon as the grain crop is off, or meadow land not intended for a meadow next year has been cleared, commence cultivating, doing it thoroughly with the King cultivator. This implement will bring all roots to the top of the ground where the sun or frost will kill them. Devote as much time to cultivating the ground as you would to plowing the same land once, and you will have it thoroughly loosened to the depth of seven or eight inches. Then by means of the attachment of three double mold-board plows or hillers, the ground can be put up in drills 21 inches from centre to centre. These are readily levelled in the spring by use of the cultivator with the ordinary teeth going once or twice lengthways of the rib.

On clay ground, ribbing should be practised when it is reasonably dry. Land thus prepared will come out like a garden in the spring. Less time and labor will be required in spring to put land in order for a crop where ribbing has been done and the land can be sown or planted much earlier than when left flat.

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Yearly Records and Cow Profits

J. M. Van Patter, Elgin Co., Ont.

Many dairymen now pursue the method of keeping yearly records of the milk produced from their cows. They find it very profitable. The man who does not weigh and test the milk of his cows, is working in the dark. There is no certainty in "guessing" at a cow's milk. She may have the appearance of being a great milker, and may have the required form and yet not be valuable enough to keep as a breeder. She may pass the expert dairy judge at a show as a winner, and yet not pass the practical test at the pail for one year. Some cows show a very creditable performance for a short time and yet be of no value in a year's test.

It requires little time to weigh the milk and record it. There is no other way to breed up a herd. When working with unknown cows, you are as apt to keep the heifers of the no-goods as of the really good cows. This seems absurd, yet it is true. You forget before a year is gone how the supposedly good ones shrink in the milk flow or go dry in eight months. One that looks to be of little value may hold so steadily to a moderate flow that she, after all, makes a fair yearly record. It pays to keep only those cows that make a profit. It costs no more to keep a good cow than a poor one, and she will be many times more profitable.

WINTER DAIRYING MOST PROFITABLE

In our vicinity winter dairying is more profitable than summer dairying, but to be successful with winter dairying one requires suitable accommodations for the cows, the best kinds of forage, and such grain feeds as will add to the value of the daily ration, and the cows must be given all necessary care. Liberal and regular feeding and watering, and regular and gentle milking are essential if the cow is to do her best. Ensilage and alfalfa hay take a prominent place in the daily rations of our cows, during the winter months especially.

We find one great advantage in keeping Holstein Friesians, in that they readily convert the coarsest of roughage feeds into the best of milk. It was gratifying to us to note how readily our cow "Netherland Aaggie De Kol" consumed large amounts of roughage feeds, as well as her grain rations while under test last year. We did not understand the value of the alfalfa as a feed, until recently as we had not grown it before. We intend growing it more extensively in the future, as it is one of the cheapest and best feeds for dairy cows.

Note.—"Netherland Aaggie De Kol" recently completed a yearly record of 21,666 lbs. milk, which realized the handsome net profit of \$277.45.—Editor.

Our Way of Filling the Silo

H. J. Glendinning, Ontario Co., Ont.

Corn for the silo should be cut when it has reached the glazed stage. It is impossible to catch all the ears at the same state of maturity. If a number of them have gone beyond that stage it will do no harm.

If the season has been backward and the corn is late, it is better for the corn to have a touch of frost than that it be put into the silo when it is soft and green. If put in too green there is apt to be a great leakage of juice that will run away from the silo in a stream, or stand in pools in the yard. In the loss of this juice large quantities of sugar and other valuable material in solution are carried off, and reduce the feeding value of the silage. Besides this loss the silage from unmaturing corn is likely to be of a dark color and very sour.

FROSTED IMMATURE CORN.

A little frost is a benefit to over green corn. It causes the leaves to wilt and the sun and air will dry out considerable of the excessive mois-

ture without there being much loss of feeding value. Silage made from slightly frosted corn will come out of the silo almost as fine in color and smell and taste as that made from properly matured corn. The difference will be that the properly matured corn will make a silage of higher feeding value owing to having a larger percentage of mature grain in it.

Overripe corn or that which has been frosted and has become too dry should have water added to it at the time of filling the silo. This may readily be done by those who have a water system and overhead tank in connection with their buildings. The water should be carried in pipes or hose to the blower, and a small stream allowed to enter with the corn. This will add it evenly to all the corn and prevent it from being fanged in the silo. Where no automatic water system is available it will be found best to add it by some means at the blower.

We cut the corn with a corn binder, generally a few days before putting in the silo. The binder does the work quickly and ties the corn in bundles which makes it more easily handled. A disadvantage of the binder is that it leaves a high stubble. Considerable of the feed value of an acre of corn is thus lost, and the following year this stubble interferes to some extent with the implements of cultivation.

CUT CORN THE SHORTEST POSSIBLE.

We have found it more profitable to hire a blower run with a threshing engine than to fill by means of any other way. It is advisable to get a blower of large capacity and with a strong engine. Have the corn cut the shortest length the machine will cut as then more material can be put into the silo as it packs more closely when fine.

It requires 20 hours to fill our two silos. They have a capacity of 175 tons.

If the top of the cut corn is covered with a layer of five or six inches of chaff or cut straw and made wet with a barrel of water in which a pair of salt has been dissolved the silage will be found to be in perfect condition when the chaff or cut straw is removed.

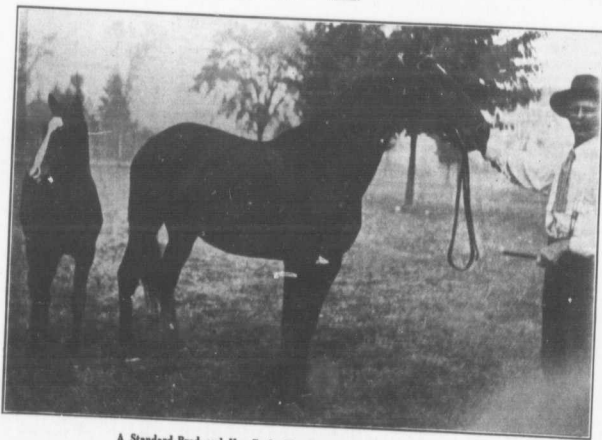
Harvesting and Storing Potatoes

L. H. Newman, Sec., Canadian Seed Growers' Association.

The best time to dig potatoes is as soon as the tops have died except in cases when disease has gained headway. Where such is the case it is considered advisable to leave the potatoes in the ground in order to give them an opportunity to show any infection before storing. A potato digger should be available where any considerable area of this crop is to be harvested. Several of these machines are now on the market and may be purchased at a comparatively low price.

STORING

If stored, potatoes should be placed in a cool, dry, well ventilated place. They should be brought from the field in a clean, dry condition with all "rotten" or "scabby" potatoes removed. Mr. Macoun, of the Central Experimental Farm, Ottawa, recommends that a special bin be constructed in such a way as to facilitate the greatest circulation of air throughout the pile. This may be done by nailing slats a little apart on upright pieces about six inches from the walls. The floor of the bin should also be raised and constructed of narrow boards with one inch space between them.



A Standard-Bred and Her Foal—The Popular Light Breed of America.

"Mayday," 1.011, by Zyro, and her foal by Muckle Wilks, were winners at five of the local fall fairs in Ontario in 1908. They are owned by S. A. Devitt, Durham Co., Ont.

We use low down wagons for hauling the corn. All of our wagons are fitted with low steel wheels. We use the plank sills of the hay racks on the wagons, these being 10 inches high they carry the corn above the wheels. One side is left on the rack and the tops of the sheaves are put to that side. With this arrangement no trouble is experienced in having the board slip off. Loading is all done from the one side, the butts being kept to the near side. Three to five teams are used for hauling, according to the distance the corn has to be hauled.

Care should be taken to see that the corn is thoroughly mixed in the silo. Have it well tramped. From two to three men will be required in the silo when everything is running full blast.

MARKETING

As a rule, it is more profitable to market potatoes as soon as harvested than to hold them. Circumstances and prices alone can determine the best course to follow in connection with this matter. Where a community develops a name as a large producer of high class potatoes of one type or variety, buyers are soon attracted to it and offer remunerative prices. Very often, however, the growers are able to dispose of their product themselves to best advantage. The demand for high class seed every spring opens up an outlet for large quantities of potatoes to be used for seed purposes. This is a trade which requires special development yet is one which presents splendid opportunities for the right man.

FARM MANAGEMENT

Queries re Silos

Which would be the more satisfactory, the concrete or the stave silo? I wish to build one that will keep the ensilage the best possible. I could build concrete half the last year I learn that they freeze considerably—A. G., Colebrook, Ont.

In reply to your question would say that I do not know how there is much difference in cost between a concrete and a stave silo. This year the concrete would probably be built quite as cheaply as the stave on account of the low price of cement, and if properly built is certainly more lasting.

The chief considerations in building cement silos are to get a good solid foundation, reinforce the concrete by means of wire and have a good smooth pure-cement finish on the inside. These requirements fulfilled, one is likely to have a very satisfactory silo. A miss in any one of them is certain to render the whole thing a failure. The stave silo is probably not so durable as the cement silo, but if perfectly built will allow the corn to freeze around the outside but this can be largely prevented by keeping the outside than in the middle when emptying the silo.—J. H. Grisdale.

Solid vs. Liquid Manure

I have always seen it advocated to save the urine as it was as valuable as the solid manure, consequently I have tried to do so. Last spring I put 10 lbs. of fresh sawdust in a pail, put in as little dry cow urine as possible to absorb it, and put in 1 lb. of sweet corn. In the next hill I put 10 lbs. of solid cow manure with the next hill I put 10 lbs. of fresh horse manure, and in the next hill 10 lbs. of the manure.

The manured hill the corn stands 4 1/2 stalks stand 8 in. and the urine hill two stalks, standing 13 inches high. No other manure was used. I would like to know you explain it? It looks as though the urine ones had the full of ho's and the urine ones tried to save the urine.

Your experiment with solid manure and urine is very interesting but not conclusive. In the first place the manure in each case, but more particularly in the case of the urine should have been put on the surface not underneath the corn. The reason for poor results from urine is not far to seek. The sawdust allowed all moisture to slip through to the subsoil and with the moisture would go the fertilizing constituents of the urine. Once the sawdust it would by this same sawdust prevented from rising to feed the plants on top of the sawdust would be started for both food and water. Urine is very high in plant food content but a mixture of solid and liquid manure is the best. The two mixes them together. The man who who lets the wise man, not he under his stable floor and so pollute the soil himself and his cattle and loses the value of the excreta from his animals.—J. H. Grisdale, Agriculturist, C.E.F., Ottawa.

Queries Re Water Supply

1. Which would be the cheapest and most satisfactory to dig a well or bore through subsoil; water is found at about 25 feet.
2. Buildings are on level ground. Show how far from buildings would it be necessary to place the well to avoid contamination? We are not an owner but a farmer owner had a privy about 15 feet from it.
3. Buildings are on high ground over-

looking Bay of Pundt. Which would be cheaper to install and operate to provide water for house, a windmill or gas engine?

4. Would it be necessary to have a force pump? Wm. H. Colchester Co., N. S.

(1) I think that for a shallow well it would be better to dig.
(2) 125 to 150 feet from the building is the distance given me by Prof. Edwards of the Bacteriological Department at the O.A.C., under your conditions, and then the well should be placed in the upper side of the closet mentioned. The danger of contamination depends largely upon the distance below the subsoil and the direction in which those strata slope. If they are porous your well would not be safe within 125 to 150 feet. If they are compact the distance might be lessened a little, though land unless you have such level ground that the strata sloped from the site of the well downward towards the closet.

(3) There would probably not be a great difference in cost of installing windmill or gasoline engine, but the windmill would cost not give a comparison between cost of installing the different systems that would hold good in all localities, as prices of both windmills and engines vary. You had better get in touch with manufacturers and mill and engine agents at your place and under your conditions.
(4) Any ordinary pump would do all right provided the sucker is nearer to the water than about 31 feet.—Prof. Wm. H. Day, O.A.C., Guelph.

Orchard Grass, when and where to Sow It

1. Orchard grass sown in mixed grasses is said to be a quick grower. Would it be a valuable green feed to sow alone?
2. Would it be a very early and more so than red clover?
3. How much seed should I sow to the acre when sown alone?
4. Would it do to sow it with rye—Sub., Postoffice Co., Que.

(1) Orchard grass is a very early hay but it is a heavy yielder. It will however prove itself as good as timothy or even better on good heavy land more especially in shady spots.

(2) Red clover will yield very much more than orchard grass per acre.
(3) Sow about 30 lbs. per acre on well prepared soil.

(4) No, it would not do to sow orchard grass seed alone with the rye in the fall but it would be time enough to sow it on the rye land after the green rye had been cut.—J. H. Grisdale.

The Winning Sheaves at Toronto

The exhibit of sheaves of oats, wheat and barley from the prize-winning fields in the standing field crop competition in Ontario was an innovation which attracted great attention at the Exhibition. In order to equalize conditions the Province was divided into three districts, and competitors could show only in the district in which they resided. District No. 1 comprised Muskoka, Parry Sound, Haliburton, Nipissing, Manitoulin, Algoma and the other districts in New Ontario. District 2, all counties east of York and Simcoe. District No. 3, York, Simcoe and all counties west and southwest of same. The winners followed in the order of their standing, the address given being the residences of the exhibitors and they are followed in every case by the name of the agricultural society of which they are members—

Oats—District No. 1—1, W. E. Streetfield, Emsdale, Perry; 2, Thos. Nicholson, Warren, Warren; 3, A. Sylvester, Warren, Cardwell; 4, Geo. Streetfield, Emsdale, Perry; 5, Rev. L'Euever, Verulam, Cardwell. District No. 2—1, Thos. Cosh, Boh-

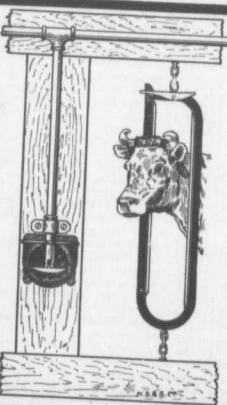
caygon, Verulam; 2, James Leask, Taunton, South Ontario; 3, F. Truedell, Collin's Bay, Kingston Township; 4, J. B. McLaren, Renfrew, Renfrew; 5, Mrs. T. B. Taylor, Boh-caygon, Verulam. District No. 3—1, W. G. Rennie, Ellesmere Scarborough; 2, R. E. Mortimer, Honeywood, Dufferin Central; 3, Jas. W. Edgar, Gorrice, Howick; 4, Arch. Greer, Perre, Dufferin Central; 5, A. E. Cornell, Norwich, N. Norwich. Wheat—District No. 2—1, Robt. McKay Maxwell, Kenyon; 2, D. Malcolm, Nestleton, Cartwright; 3, Alex. McDonald, Cannington, Beaverton, District No. 3—1, Perry Dupex, Kirkton, Kirkton; 2, W. J. Robinson, Kirkton; 3, J. Gillespie Galt, S. Waterloo; 4, James Scott, Galt, S. Waterloo; 5, George R. Barrie, Galt, S. Waterloo.

Grass Wheat—1, James A. Rennie, Milton, Markham; 2, P. W. Boynton & Son, Dollar, Markham; 3, George B. Little, Brown's Corners, Markham. Special prize—1, John Orr, Galt, S. Waterloo.

Barley—District No. 2—1, S. G. Gourlay, Diamond, Cartleton; 2, Melville Trewin, Blackstock, Cartwright; 3, D. Malcolm, Nestleton, Cartwright; District No. 3—1, T. W. Stephens, Cainsville, Onondaga; 2, R. J. Robertson, Aurora, Newmarket; 3, Frank A. Legge, Richmond Hill, Richmond Hill; 4, C. W. Burrill, Onondaga, Onondaga; 5, Chas. Edwards, Onondaga, Onondaga. Special brewer's prize—1, James A. Rennie, Ellesmere, Scarborough; 2, W. G. Rennie, Ellesmere, Scarborough; Rye—1, H. J. Hellwell, Highland Creek, Scarborough; 2, George McKague, Cannington, Eilon.

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HORTICULTURE

Horticulture at the Canadian National

An excellent display of fruit was made at the Canadian National Exhibition last week but the number of entries was not as large as last year. In the commercial package classes, competition was keen. The quality of the fruit was very uniform but much can still be learned about packing. During recent years, there has been a steady improvement noticed in packing methods but the exhibits this year seemed to show that progress has stopped. Generally speaking, the packs were not as good this year as last. It is surprising that the growers do not give this matter more care and attention. While the packs in some of the boxes exhibited were good, many of them showed carelessness and ignorance. In a few of the boxes, the apples appeared to have been dumped in in bulk without any attempt having been made at systematic arrangement. The judges found it necessary in some cases to open the boxes and see the fruits on exhibition simply because it was not properly packed. Besides the good fruit that was poorly packed, there was some poor fruit well packed. The apples, generally, were fair, but it was a little early for winter varieties to make a good showing; they were rather small in size and lacking in color. The commercial packages of peaches, plums and pears were excellent.

In the plate display, a fine showing of fruit was made. There was a large number of entries in plums and they were good. The pears were extra good. The grape display was not as large as last year; although the date of holding the show was early for them, there were some good samples shown. The peaches were exceptionally good. The Niagara district was well represented in these classes of fruit. First prize for the best display of fruit was won by the St. Catharines Horticultural Society which put up an extensive exhibit including apples, pears, peaches, plums and grapes.

The Provincial Government of British Columbia had a large exhibit of the products of that Province. The fruit represented various districts, including the Okanagan, Kootenay, Thompson and Fraser Valleys and Vancouver Island. Plums, prunes, peaches, pears, apples, crab apples, cherries and tomatoes were shown. The whole exhibit was a credit to the province.

Entries in the vegetable classes were not so extensive as last year. The quality mostly was good. There were shown some specimens of the different kinds of vegetables that were grown as well as can be grown anywhere. The awards for the best collection of vegetables were placed as follows: 1st, W. Harris, Humber Bay; 2nd, Brown Bros., Humber Bay; 3rd, Ed. Brown, Wychwood Park; 4th, Geo. Baldwin, Toronto. A large exhibit was made by the Ontario Vegetable Growers' Association.

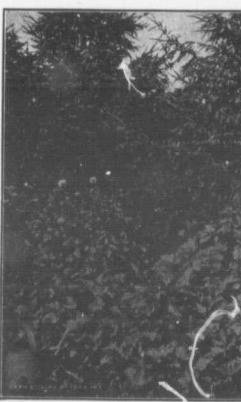
Packing of Apples in Barrels

Daniel Johnson, Lambton Co., Ont. From what I know of the apple trade, I am convinced that the apple barrel will remain in Ontario as the package for the ordinary grades of late fall and winter apples. The box will, no doubt, be used for fancy grades of apples as well as for all grades of summer apples. In view of the fact that the barrel is almost certain to remain the principal package, it is important that the fruit grower should have a good knowledge of what is required in a barrel.

Barrels for apples should be made from no grade lower than mill run staves cut preferably five to two inches in thickness, and not more than six to two inches. Use mill run heads and No. 1 hoops. For the export trade and even for the western trade, each barrel should have eight hoops. It will cost two cents a barrel more than the six hoops, but will give us far fewer slacks, caused so often by hoops breaking or by expansion of the barrel.

Before putting in the fruit, every barrel should be nailed. With the exception of the two hoops on the end from which the head is taken, every one should have at least four nails and cleats, each cleat having from five to six nails securely driven into the staves of the package.

It is more important that the bottom of the barrel, in packing, which will be the top when opened, should be properly faced. First take a cardboard head with the shipper's name and address neatly printed upon it, place that on the bottom with the lettering down, next select from your apples enough to place on the bottom of your barrel one tier. These apples must honestly represent the con-



The Way Mr. J. Jackson Grows Cucumbers. (See Article)

tents of package, not too large or small, but uniform in size and color with the interior. The apples should be placed in rings ending up with a single apple in the centre. The stem should be removed from the apples with a stemmer, and each apple should be placed base downward.

If the package is to be marked No. 1, great care must be taken in the selection of the fruit, allowing no apple with a scab or worm or any defect. The law allows ten per cent. of defective fruit in this grade, but even with the greatest care in rapid packing only ten per cent. is allowed to be set in. The barrel must be placed on a plank, and every basket of fruit emptied into it should be shaken down. When the package is nearly full put on the padding cover that will fit into the head of the barrel, put all your weight upon it and rack the barrel back and forth upon the plank for a minute or two, or until the fruit is solid. Then nail up the end with apples of uniform size, placing the fruit in rings the same as the other end until it is about an inch from the chime of the barrel. Then cut on the head and press gently to place with a screw press. The barrel should be racked on the plank at least twice while the head is being pressed in. This is very important, as it takes the fruit to its place under pressure. The top of the press should

be of the ring type which fits around the outer edge of the head. Nail and cleat both ends of the barrel alike.

The faced end of the barrel must be stencilled in letters not less than one half inch in size, and should contain the words "Canadian Apples," or preferably "Ontario Apples," with the name of variety, grade, and name and address of shipper.—Extract from pamphlet issued by Ontario Department of Agriculture.

Cucumbers by the Barrel

Ed. Farm and Dairy.—Here is how we make sure of the family supply of cucumbers, rain or no rain, as may be seen in the illustration, on this page. Take an empty salt barrel, bore some holes around near the bottom and set it about three inches in the ground near the well or other supply of water. Of course the ground should be rich. Then fill the barrel with well rotted manure and plant the seeds a foot or two from the barrel. In very dry weather put from two to four pails of water in the barrel every night; it will surprise you to see them grow. This is my second

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pack the dirt back in with the foot. Gooseberries do not root as readily as currants, especially such varieties as the Downing and English types. Here sometimes mound layering is resorted to. Cut back the bush to force an abundant sucker growth. About mid-summer mound up with earth, leaving only the tips of the shoots exposed. It requires about two years to produce a well-rooted plant of the English type; the American will root in one year.

Apple crop is an extra good one. We will gather over 100 barrels in our own orchard. Plum crop is fair. All small fruits are above the average. —A. P. Stevenson, Dunston, Man.

Enclosed find \$1 for my renewal subscription to Farm and Dairy. I have taken it for only one year, but I cannot do without it.—Richard Beckerson, Haldimand Co., Ont.

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Poultry

Poultry I most fascin bandry. Ev enthusiast fr craft until ket condit Persons w start on a work up. T usage so m revenue may

POULTRY YARD

Co-operation and Education

Prof. F. C. Elford, Macdonald College, Que.

Wherever in Canada co-operative circles have been tried the results have been satisfactory.

At Fergus, Ontario, Messrs. Armstrong Bros. were keeping a feed store, handling a few chickens of doubtful quality brought in by their customers. They commenced a campaign of education that has resulted in a yearly output of thousands of dollars. Wholesale dealers who buy their product say it is of superior and uniform quality and they can afford to pay a price that will net the farmer much more than if each handled his own.

At Holmesville, Ontario, prior to the establishment of a Poultry Station, the limited quantity of poultry marketed was not first class. The breeds were unsuitable and little attention was paid to that department. Through operation of the station and the co-operative work that has followed, there is to-day a good class of poultry kept on the farms and the station sent to Montreal last year, from a territory limited to several thousand dollars' worth of dressed poultry and is shipping eggs during the entire year. The education and the operation has almost created a department of the farm there into an important industry.

At Petit Brule, Que. is a small co-operative circle managed by the salesman of the cheese factory, which is shipping eggs to Montreal. The members of the circle are getting a bonus for taking care of their eggs, which is a decided benefit to themselves and the trade.

There are other instances which might be mentioned but the cases are isolated and act entirely separate of one another, but show that co-operation is an advantage and can be carried on among the farmers of Canada.

EDUCATION A FORERUNNER.

A study of these shows also that before there is much co-operation there must be considerable education. In the case of Holmesville the education was done through the assistance of the Government from their Poultry Station. At Fergus, the Messrs. Armstrong Bros., did the educating work themselves. They say that the work should not be borne by private individuals as there is no guarantee that as soon as the educational work is far enough advanced the firms will be strong in and reap the benefits, as has been their experience. Mr. Armstrong thinks that the Government should assist such co-operation the same way that they assist cheese and butter factories.

At any rate before we can expect to have a uniform system of co-operation even to a small extent a campaign of education will be necessary. For this purpose the Poultry Producers' Association of Eastern Canada has been formed and through it the Dominion Government will assist in this campaign of co-operative effort.

Poultry Keeping Has Its Advantages

Poultry keeping is probably the most fascinating branch of animal husbandry. Every poultry raiser is an enthusiast for a time at least and generally until he realizes that the market conditions are against him. Persons with a limited capital can start on a small scale and gradually make up. The returns are quick and unlike so many farm departments its revenue may be divided over the 12

months of the year. Every farm is benefited by a well kept flock of hens. They keep down the insects, enrich the soil, turn refuse into money and interfere not at all with the time required for other departments.

Managing a flock of hens is an education in itself and may allow a younger member of the family an opportunity of acquiring business principles that will never be forgotten.—F. C. E.

Scaly Legs on Fowls

B. Smith, Lambton Co., Ont.

This disease is very common where fowls roost in filthy quarters. It is very contagious and is caused by a small parasite working underneath the scale of the leg, spreading upwards. The legs are swelled much above their normal size. This disease in most cases, is not fatal but is most unsightly and spoils the appearance of the bird.

To treat it apply equal parts of lard and kerosene oil, with enough pulverized sulphur to form a paste. Dip the leg, leaving for a week. Repeat till oil, kerosene and alcohol were applied monthly this disease would not occur.

Fattening Chickens

1.—I have about 125 chickens, which are now about two months old; they are Rhode Island Reds, and I have an idea how much I ought to feed them, as it is my first experience. I am feeding them all the males, and fatten them to pick out eggs. Can you tell me what is the right idea, and how to do it? Will you also give me a spray your henhouse with.—B. A. M., Quebec.

1.—If your chickens are doing well under the present treatment I would continue it. If they have a free run, good, big yard, give them all the grain they will eat up clean, twice a day. You will not make much of a success of feeding chickens if you endeavor to measure it out every feed. I am feeding mine in the hopper, that is, a box out of which they can feed themselves. In this box is put frozen wheat and they eat all they want of it. In addition to that they get some grit and leaf scrap, but you may be able to give your birds leaf scraps or milk, and the grit they will pick up. If you have any cockerels weighing 1½ lbs. to 2 lbs. each, you might be able to sell them as broilers now, without any special feeding, or if you want to feed them specially, give them a mash of any meal that is handy, mixed with milk.

2.—We spray our henhouses with Zenolene, about 10 per cent. solution.—F.C.E.

Preparing Poultry for Market

In proportion to the quantity of poultry offered for sale in the past, altogether too large an amount has been poorly dressed and equally poorly finished. This condition of affairs is the simplest of a lack of knowledge of the best methods of hanging and preparing birds. Therefore, farmers and others who are raising poultry would do well to kindly note very carefully the following instructions.

TIME TO FATTEN

The most profitable age to fatten poultry is between three and four months old, though birds of almost any age may be fattened. The idea is to have them plump and well fleshed.

FATTENING CRATES

Chickens for fattening should be placed in crates. These crates are generally made six inches long, 16 inches wide and 20 inches high, divided into three compartments, each compartment holding four birds. Set the crates on stands four feet from the ground. Each crate should carry a light "V" shaped trough two and a

half inches deep. The bottom of the trough is four inches above the bottom of the crate, and upper side edge two inches from the crate.

FEDDS

A very palatable and effective ration may be made of two parts ground oats and one part corn, or, equal parts of ground oats, ground corn, and ground buckwheat or two parts flour, two parts ground barley and one part wheat bran, mixed with skim milk, sour milk or butter milk to a thin porridge. A quantity of meat, beef scraps and grain should be mixed with the mash on alternate days.

On the first day mix some Epsom Salts in the drinking water, and for a couple of days feed lightly, the food being given twice daily, and after the birds have eaten what they require, troughs should be removed or cleaned. Quantities of fresh water must be supplied constantly, and also grit two or three times per week.

In fattening chickens the object should be to conform, as nearly as possible, to market requirements. The brood, in giving, should be long and broad, shapely, with a long appearance. Short legs, indicating the low, blocky type, are a good feature. The leg should form as a small proportion of the weight as possible, because the meat is largely composed of the skin and therefore inferior. About four pounds is the preferred weight of dressed fatted chickens, and as the gain in live weight made by birds during the fattening period, it is necessary, or difficult to calculate the amount of work necessary.

FATTING

A mistake which results in the spoiling of many promising birds is killing them when their crops are full. Green spots and decomposition on the flesh can invariably be traced to the fact that the birds were not fasted. Birds must fast for at least 24 hours, preferably 36 before killing, so as to completely empty their crops and intestines. This is a point about which one cannot be too particular. Next week we shall deal with killing, plucking,umping and packing.

Pointers

In lieu of a dust lat, sifted coal ashes are preferable to wood ashes because they do not contain so much potash.

If your egg supply is falling off, probably it is because your hens are not getting as much ground bone as they need. Bone makes eggs.

Be a poultryman, if only a backyard fancier. Did you ever step to think how much money there could be made in the backyard? Some one try it and see.

Just because you have not quite as good a hen-house as the neighbor has is no reason for neglecting it. It often happens that the house which looks the best from the road is not the best from the inside view.

There is a constant demand for breeding and exhibition stock, and fortunate is the poultryman who can

supply, in a degree, this want. There are no fixed prices for fancy stock and eggs, and he who can furnish the best will obtain the best returns.

In raising poultry for the market the profit lies in hatching early, plucking the chickens forward as rapidly as possible and marketing them as soon as possible. The cost of food for poultry is less and the dividends on investments are more frequent and also larger than in most other stock.

There never was a time when careful selection failed to give good results and especially when extra care and attention is given to the selection of the male. Usually between a little less extra care and a little neglect lies all the difference between the flock of hens that lay in winter and the flock that does not.

There can be no fixed method of feeding or breeding fowls. Success comes from right methods, and these methods must be learned in the school of common sense and experience. I contend that every poultryman should stand upon his own ground and work out his own methods of keeping poultry successfully, but in this he may be greatly helped by the experiences of others.

The one great principle that is sadly neglected in the poultry field to-day is 'system.' It is the by-word that keeps the affairs of the world going to-day. Very few of us work under exactly the same circumstances and therefore different methods of works must ensue. There is a diversity of circumstances, and no one can successfully copy the method of if he does he will not succeed. Old breeders can only give the beginner pointers to work by. There is no royal road to poultry culture.

The thoroughly qualified poultryman, the one who can make good month in and month out, year after year, does not have to seek a position nowadays and this should be accepted as a pointer by young men and women interested in poultry, and willing to put in the hard work necessary to qualify themselves for a successful career in the industry. There are any number of positions seeking poultrymen competent to fill them. The demand is constantly increasing.

I consider Farm and Dairy a splendid farm paper, and one that is continually improving. The special magazine issues are especially fine. I keep them all for reference.—A. E. M., Algoma.

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FARM AND DAIRY

AND RURAL HOME

Published by The Rural Publishing Company, Limited.

FARM AND DAIRY is published every Thursday. It is the official organ of the British Columbia Farmers, Pastors and Western Ontario, and Bedford District, Quebec, Dairy-men's Associations, and of the Canadian Inland, Ayrshire and Jersey Cattle Breeders' Associations.

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WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles.

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The paid subscriptions to Farm and Dairy exceed 7,000. The total circulation of each issue, including copies of the paper sent subscribers who are but slightly in arrears, and sales to subscribers from 8,000 to 12,000 copies. No subscriptions are accepted at less than the above-mentioned rates. Thus our mailing lists do not contain any dead circulation.

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

OUR PROTECTIVE POLICY

We want the readers of Farm and Dairy to feel that they can deal with our advertisers with our assurance of our advertisers' reliability. We try to admit to our columns only the most reliable advertisers. Should any subscriber have cause to be dissatisfied with the treatment he receives from any of our advertisers, we will investigate the circumstances fully. Should we find reason to believe that any of our advertisers are unreliable, even in the slightest degree, we will discontinue immediately the publication of their advertising, and should the circumstances warrant, we will expose them through the columns of the paper. Thus we will not only protect our readers, but our reputable advertisers as well. All that is necessary to protect you to the benefit of this Protective Policy is that you include in all your letters to advertisers the words, "I saw your ad. in Farm and Dairy." Complaints should be sent to us as soon as possible, and reason for dissatisfaction has been found.

FARM AND DAIRY

PETERBORO, ONT.

FARM AND DAIRY LEADS

We hope that the readers of Farm and Dairy will appreciate the illustrated supplement, portraying the champion animals shown last week at the Canadian National Exhibition, that they will receive with this issue of the paper. It has been prepared at heavy expense. As far as we know, Farm and Dairy is the first agricultural paper in Canada, if not in America, to attempt to furnish its readers with illustrations showing so many champion animals and printed on paper of such high quality.

Of late years, some of the large city papers have made a great success of illustrated editions printed on expensive, high grade paper. The popularity of these editions has been due to the fact that impressions obtained through the eye, by means of good illustrations, are absorbed quickly and are generally lasting in nature.

Believing that our Canadian farmers will be as quick, even quicker, to appreciate good illustrations, than people living in cities and realizing

that there are many matters relating to agriculture that lend themselves admirably to reproduction by means of photographs, Farm and Dairy has decided to commence the publication, from time to time, of illustrated supplements similar in nature to the one that goes to our readers with this issue. No extra charge will be made for these supplements. The regular departments of the paper will be kept up to their usual standard.

It is our desire that these supplements shall be so attractive that our readers will keep and, in some cases, possibly, frame them. Special pains will be taken to publish nothing but the best illustrations.

Farm and Dairy desires and intends to lead in matters relating to agricultural journalism. Ours was the only farm paper that went to the expense of sending an editor to the States to investigate the important matter of free rural mail delivery. The results of this investigation are well known to our readers. Farm and Dairy is the only farm paper in Canada that has ever attempted such an undertaking as the holding of a provincial prize farms competition such as the one that is now in progress in Ontario. These matters are mentioned, merely to show our readers that we are endeavoring to return them the best possible service in which they are supporting Farm and Dairy.

ALFALFA MERITS CONFIDENCE

More alfalfa hay has been cut this season in Canada than ever before. Many have cut it for the first time. So much has been said for and against alfalfa that beginners will have watched it with great interest.

Many will feed alfalfa this coming winter for the first time. It is safe to predict that each man who feeds well made alfalfa hay to his dairy cows, feed cattle, horses, swine and hens, will be a warm friend and advocate of this great forage plant. It will cut down the heavy feed bills that these growers have been paying for bran and other concentrated feed stuffs.

It will be of interest to have some standard from which to make comparisons as to the value of different feed stuffs. The U. S. Department of Agriculture at Washington, in Bulletin No. 339, gives the comparative values in money of a few of the common feed stuffs.

Alfalfa hay per ton	.....	\$20.16
Clover hay per ton	.....	\$14.12
Timothy hay per ton	....	\$ 9.80
Wheat bran per ton	.....	\$22.80
Shelled corn per ton	.....	\$20.16

These figures should be a revelation to those who have pinned their faith on timothy hay. Timothy gives but one crop in the season, while alfalfa gives two and three crops, and will yield two and three times as much per acre as will timothy. But this is not all. At the end of three years the timothy will have pretty well exhausted the fertility from the soil. The alfalfa on the other hand will make the soil richer by extracting large quantities of nitrogen from

the atmosphere and adding it to the soil. It would also have left the soil in a better physical condition through the action of its long roots in penetrating the soil. Alfalfa is a wonderful plant.

WHERE SPECIAL PURPOSE COWS SCORE

The front cover illustration on the Exhibition number of Farm and Dairy, showing six high producing special purpose cows owned by Mr. J. K. Moore and Son, of Peterboro Co., Ont., elicited comment from many quarters. One admirer of the beef breeds and of the so-called "dual purpose cow" raised the old question of "what good are those animals when past their age as milk cows? They will not make good beef."

A comparison of profits made from Mr. Moore's special purpose cows, and dual purpose or the average cows soon sets that enquirer right. The Moore herd last year averaged practically 9,000 pounds of milk per cow. Their best cow gave 13,000 pounds. Granting that the period of usefulness of a cow extends over eight years and figuring on an average production of 9,000 pounds a year, the special purpose cow would give 72,000 pounds during her productive period. Sold at the cheese factory at the nominal figure of \$1.00 a cwt., this would realize \$720.00. The average, and if you will, the dual purpose, cow gives 3,000 pounds. In eight years, this would amount to 24,000 pounds or \$240.00. This dual purpose cow can be disposed of for beef and she will bring say, \$35, bringing her total up to \$275, as against \$720 for the special purpose cow, or a difference of \$445.

The special purpose cow needs no further argument to support her cause. Everything is in her favor and those dairymen who are still in the dark and seeking to produce milk from the general purpose cow had better call a halt and start forthwith into cows bred for the special purpose of milk production.

AN EXHIBIT OF REAL VALUE

Few exhibits on the grounds of the Canadian National Exhibition compare in real educational value, from the standpoint of the farmer, with the tuberculosis exhibit made under the direction of the Dominion Government. A section of the refrigerator in the dairy building was given over to the exhibit, and could be seen in plain view of the meat marked with the words "Canada Approved," while alongside of it was meat, bearing the "Condemned" tag, on which tubercles were plainly visible.

There are few farmers but do more or less slaughtering. A small percentage of them, it is safe to say, are sufficiently informed to recognize tuberculosis in meat that is but slightly infected. This exhibit taught a lesson to thousands in a most practical way. Those who studied it could not fail to recognize tuberculosis again. The layman, or the average meat consumer, having seen that demonstration will be on the watch hereafter to see that the meat he buys is sound.

FEED LIBERALLY AND EARLY

Early fall is the most trying time on the dairy cow as she is commonly cared for. Pastures, through drought and close cropping, furnish but scanty maintenance, and cool nights and bleak weather bring discomfort to the cow and force her to use much feed to keep up bodily heat.

Stabling at night and in inclement weather is practised by those who appreciate the organism of the cow. Supplementary feeding is also resorted to, for these men know that "you cannot fool a cow" and that if she is allowed to slacken in her production now it will be attempting the impossible to get her back to normal production in the same season.

Many good dairymen make the mistake of saving all feed for winter use. It is more profitable to feed it as it is needed. It is often more needed in early fall than later. To save it for what is termed "winter use," is folly. True, feed will be required later on, but that feed will be largely wasted or at least return but little profit if the cow is not kept up to her full production during the period previous to that time.

DEEP VS. SHALLOW SOIL

A number of the leading farmers of Ontario conducted, some months ago, a lively discussion in the columns of Farm and Dairy on the subject of "Deep Plowing vs. Surface Cultivation." The discussion brought out the fact that there is no one way to secure good crops. Some variation of soil, some slight difference in the manner of application of the methods employed appeared to give different results with different farmers. Where shallow plowing and cultivating the surface with the spring-toothed cultivator and disc and harrows were found to be the best, the system had much to commend it. Advocates of this system showed that the labor was greatly reduced over deeper cultivation, as a greater acreage can be gone over in a day at less strain upon horses or implements. In addition sod and stubble along with manure, are kept near the surface, where the young plants can readily get hold of a large supply of plant food.

Those who practise shallow cultivation lay great stress upon the necessity of frequently growing clover. They allow it to break up and mellow the soil rather than do this work with the plow, as is done in deep cultivation. The clover roots go to a much greater depth than can the plow. When the roots die they leave openings in the soil and these assist drainage and allow the air to pass down into the soil, which is necessary in order to convert inert matter into available plant food.

Those who have not tried the system of shallow cultivation might well experiment. Take a field of clover sod and treat half of it by the shallow plowing and surface cultivation system. Plow the other half as deep as usual. Then note results on the crop next year.

Write for our New Premium List.

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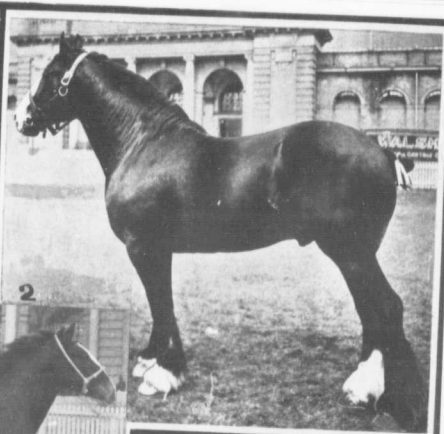
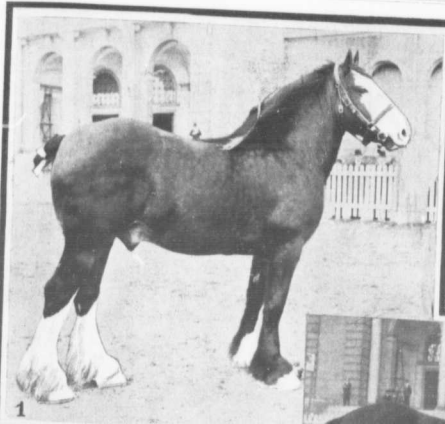
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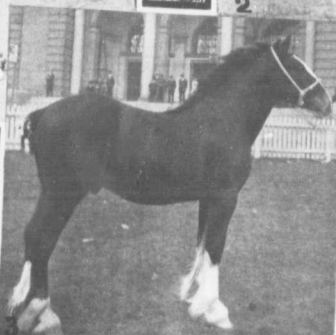
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FOR WEEK ENDING SEPTEMBER 16, 1909.

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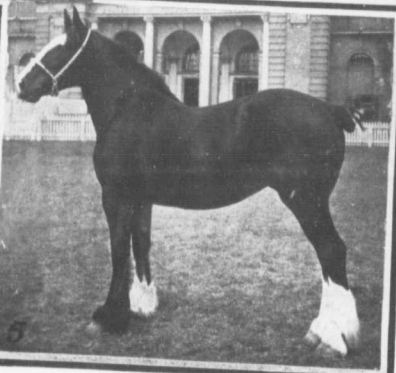
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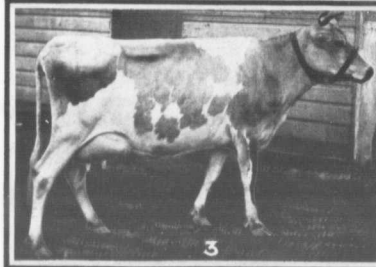
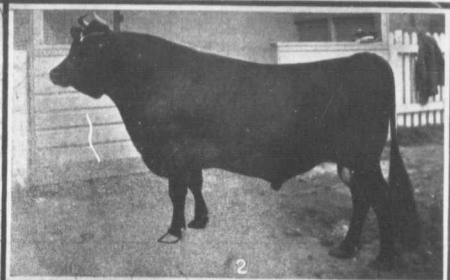
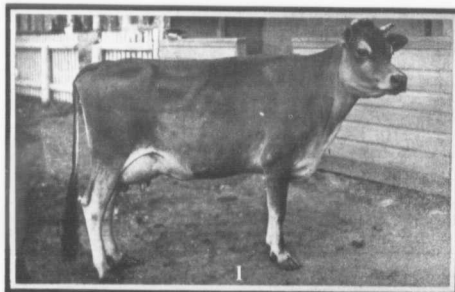


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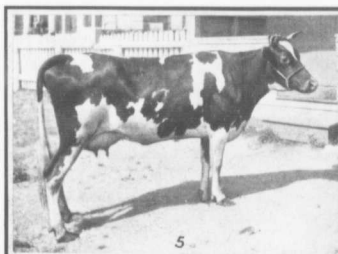
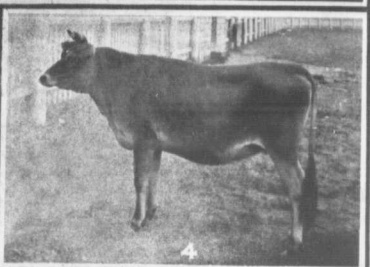


No. 1—Gartley Pride, (imp.)—9555—1st at Highland Society Show, Scotland 1909, and first in aged class and winner of the championship and special grand championship at Toronto, Sept. 1909. No. 2—Coniston (imp.)—9560—1st in 3-year old stallion class. No. 3—Macgregor Blend, (imp.)—9562—1st in and championship female. All photographs taken specially for Farm and Dairy.

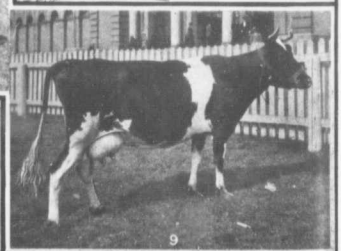
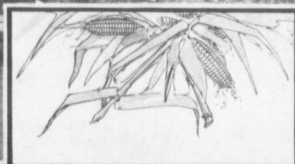
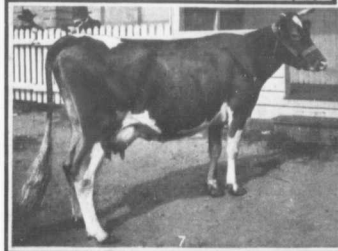
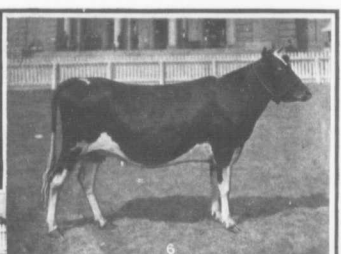
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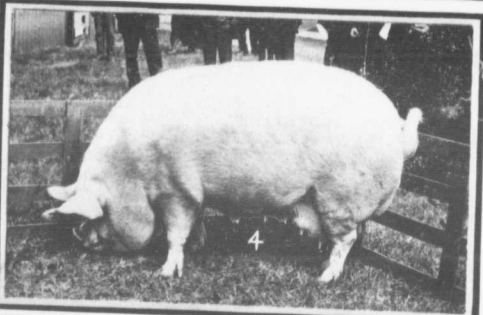
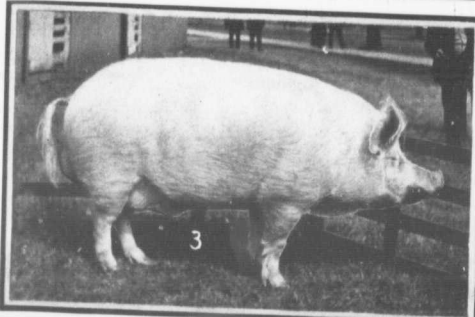
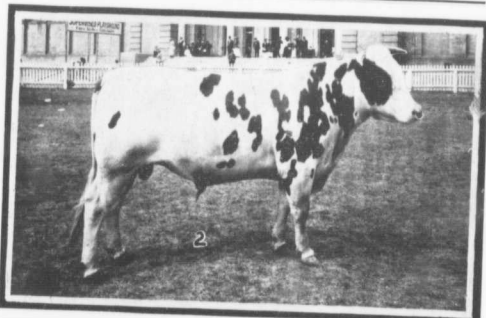
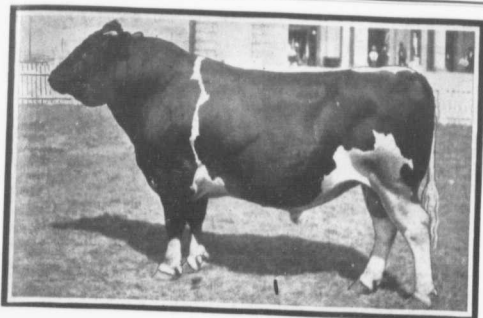


The Jerseys in the Kirkfield herd, owned by Mr. Wm. Mackenzie, of Toronto, are splendid specimens of the breed, and won high honors at the Canadian National Exhibition, 1909. No. 1—Meadow Grass, 2nd of Kirkfield, (imp.)—548—1st in 2-year old class. No. 2—Pearl of Kirkfield, (imp.)—8087—1st prize and winner of senior championship and of grand championship at Toronto for three years in succession. No. 3—Invernias Queen of Kirkfield, (imp.)—549—2nd as a 2-year old. No. 4—Sweet Mabel, 3rd of Kirkfield—(imp.)—725—1st as a yearling out of milk.

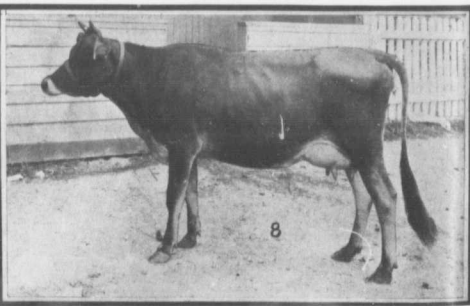
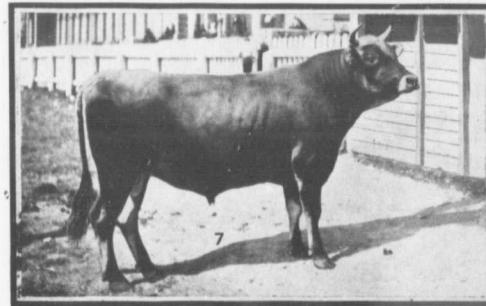
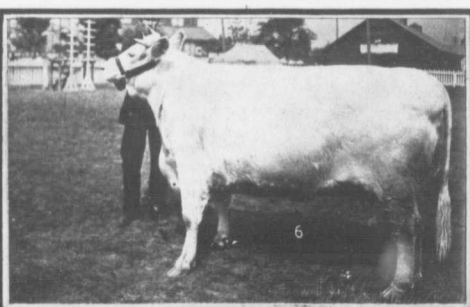
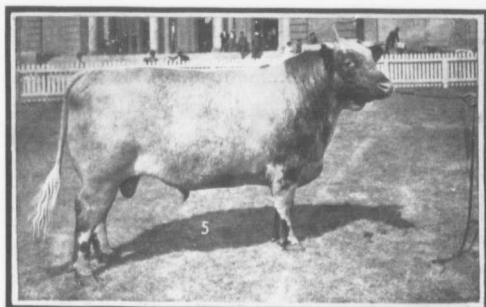
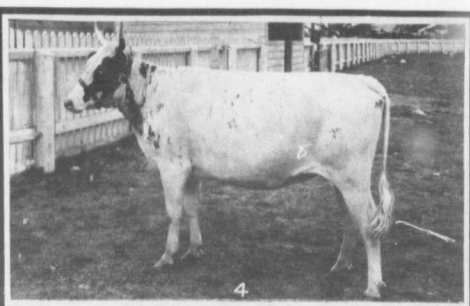
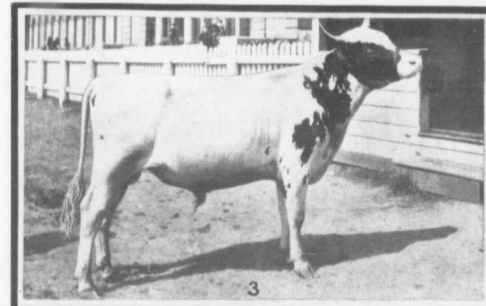
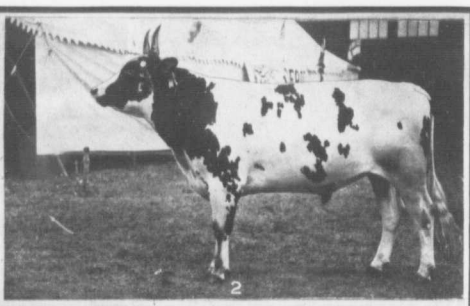
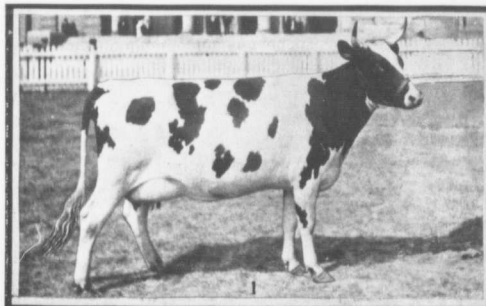
The exceptionally fine Gurnseys imported this year by Mr. Trethewey, of the Trethewey Model Farm Weston Ont, had things a good deal their own way in the Gurnsey classes at the Canadian National Exhibition, Toronto. No. 5—Fillpail 19th, (imp.)—202—1st prize 3-year old cow. No. 6—Dairy's Beauty (imp.)—199—2nd prize. No. 7—Aged cow, Fillpail 14th, (imp.)—197—1st prize cow in Island of Gurnsey 1906 and winner of 1st prize and of senior championship and of the grand championship, at Toronto 1909. No. 8, yearling bull, Billy's France of Le Hogue (imp.)—1904—1st prize, junior and grand champion. No. 9—Sundari 21st, (imp.)—195—2nd prize cow in Island of Gurnsey 1906 and winner of 2nd prize Toronto, 1909. (All photographs taken specially for Farm and Dairy.

No. 1—Schul Canadian National Junior calf in 1909. Nos. 3 and 4—medal winner at the excellent photographs taken

FARM AND DAIRY



No. 1—Schuling Sir Posh—3707—the Holstein bull shown by S. Macklin, of Weston, Ont., that won 1st in the aged class, the championship and grand championship at the Canadian National Exhibition, No. 2—Lakeside Model Wayne—627—the yearling Holstein bull shown by C. E. Smith, of Scotland, Ont., 1st and junior champion as a junior calf in 1906, and 1st and junior champion as a yearling in 1907.
 Nos. 3 and 4—Sumnerhill Jack, champion aged Yorkshire boar, winner of silver medal, and Walton Nell, the first prize and champion Yorkshire sow, twice silver medal winner at Toronto. Both animals shown by D. C. Platt & Son, of Summerhill Farm, Millgrove, Ont.
 The excellent exhibit of cream separators, made by The Sharples Separator Co., of the United States and Canada, at the Canadian National Exhibition, Toronto, 1909. (All photographs taken specially for Farm and Dairy.)



No. 1.—Clerikland Kate 7nd, (imp.)—24821—1st prize Ayrshire in 1908 as a 2-yr. old, and this year (1909) as a 3-yr. old. No. 2.—Bargenock Bonnie Scotland (imp.)—3845—1st prize 2-yr. old Ayrshire bull, senior champion and grand champion, Toronto, 1909. Both animals owned and exhibited by A. Hume & Co., Menie, Ont. No. 3.—Lesnescock Vulcan (imp.)—23455—1st prize yearling Ayrshire bull and junior champion. No. 4.—Lesnescock Sweet Pea (imp.)—23769—1st prize senior heifer calf and junior champion at Toronto, in 1908, and 1st prize as a yearling and junior champion this year (1909). Both animals owned by Robert Hunter & Sons, Maryville, Ont. No. 5.—Prince Imperial—72511—1st prize 2-yr. old Shorthorn bull, senior champion and grand champion, Toronto, 1909. Exhibited by W. Dryden, Maple Shade Farms, Brooklyn, Ont. This bull is a son of the stock bull, Prince Gloster. No. 6.—Spicy's Lady—72523—undefeated Shorthorn cow, bred and exhibited by Sir Wm. Van Horne, East Selkirk, Man., and possibly the greatest cow of the breed ever shown in Canada. Winner of the grand championship at the Dominion Exhibition held in Calgary, 1st year, and 1st prize winner, senior and grand champion, at the Canadian National Exhibition, Toronto, as well as champion cow at the Winnipeg, Brandon and Regina exhibitions, this year, 1909. No. 7.—Golden Jolly of Don—372—1st prize Jersey, senior calf at Toronto, London, and Ottawa, in 1908, and 1st prize and junior champion bull at Toronto, 1909. No. 8.—Matinella of Don, —381—(sire, Fontaine's Boyle), 1st prize and junior champion Jersey yearling heifer, Toronto, 1909. Both animals exhibited by D. Duncan, Don, Ont. (All photographs taken specially for Farm and Dairy).

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"The answer
 from Bulletin
 State College.

Creamery Department

Butter Makers are invited to send contributions to this department, to ask questions on points relating to butter making, and to suggest subjects for consideration. Address your letters to the Creamery Department.

The Butter Situation

"What do you hear on butter?" is a question that has been put to our Editor by more than one dealer in the trade, says the Trade Bulletin, and to be candid we would far sooner tell what we hear, than to venture an opinion of our own on a subject so difficult to deal with at the present time. From enquiries we find there is an opinion in the trade that the disposition of our surplus butter this season will depend largely upon the demand from Great Britain; and this has already set in to a limited extent. Recent advices from England by mail speak of a probable early make of Australia, one report stating that Australia expected to start shipping at the end of August. If this were so, the first shipments would arrive in England about the middle of October. The report also states that with favorable weather conditions, the Australian make would increase 60 per cent. over that of last year. Then it is reported that the stocks of Siberian butter are accumulating at the principal ports of Russia, it being estimated that about 75,000 casks are stored at Baltic ports. A well known exporter stated to the writer that he considered butter all right for a long pull" and that "if prices in the United States moved up a cent or two more, there would be a chance to unload a considerable portion of our surplus stocks in that market."

To Figure Over-Run in Butter*

What is the over-run in butter? My brother patrons and myself would be obliged if you would instruct us how to figure the over-run. We have a lot of talk about the over-run but have a lot to learn how to figure it out.—J. McK., Sherbrooke, Que.

Over-run in butter is the amount of water, casein, and salt incorporated in the butter-fat in making butter. Creamery over-run, however, should always be computed from the number of pounds of butter fat received and the pounds of butter sold.

The formula for calculating over-run in percentage is as follows: (Pounds of butter made—pounds of butter-fat received) ÷ pounds of butter-fat received × 100 = per cent. over-run.

In a whole milk creamery, it is possible to obtain from 18 to 20 per cent. over-run and have only 14 to 14½ per cent. moisture in the butter, while in a creamery where hand separator cream is received, 20 to 22 per cent. over-run can be obtained. This is shown by the following two examples:

FORMULA FOR FIGURING LOSSES AND OVER-RUN.

Example: 10,000 lbs. 4 per cent. milk contains 400 lbs. butter-fat
10,000 lbs. 4 per cent. milk gives 1,600 lbs. 24 + % cream and 8,400 lbs. skim milk.

1,600 lbs. cream leaving 24 + per cent. contains 391.6 lbs. butter-fat.

8,400 lbs. of skim milk, loss (maximum) .1 per cent. is 8.4 lbs. butter-fat.

1,600 lbs. cream loss 391.6 lbs. butter-fat, leaves 1,208.4 lbs. butter-milk.

1,208.4 lbs. buttermilk at .2 per cent. loss is 2.4 lbs. butter-fat, the loss in churning.

8.4 lbs. butter-fat, loss in skim milk and 2.4 lbs. butter-fat loss in but-

termilk, gives 10.8 lbs. butter-fat loss in both.

10.8 lbs. butter-fat from 400 lbs. butter-fat leaves 389.2 lbs. of butter-fat to be churned into butter.

If 389.2 lbs. butter-fat is churned into butter containing 14 per cent. water and 4 per cent. salt and casein, it will make 474.6 lbs. of butter.

474.6 lbs. less 400 lbs. gives 74.6 lbs. of butter, which is the over-run. 74.6 lbs. of butter times 100 makes 7,460 divided by 400 gives 18.6 per cent. over-run.

HAND SEPARATOR CREAMERY.
Example: 1,600 lbs. of cream testing 25 per cent. contains 400 lbs. of butter-fat.

1,600 lbs. less 400 lbs. of butter-fat leaves 1,200 lbs. of buttermilk. .2 per cent. loss in churning gives 2.4 lbs. butter-fat loss.

400 lbs. of butter-fat less 2.4 lbs. butter-fat gives 397.6 lbs. of butter-fat to be churned into butter. If this amount of butter-fat is churned into butter which contains 14 per cent. water, and 4 per cent. salt, casein, etc., it will make 484.8 lbs. of butter.

484.8 lbs. less 400 lbs. gives 84.8 lbs. of butter, which is the over-run. 84.8 lbs. times 100 is 8,480 divided by 400 gives 21.2 per cent. over-run.

The Hand or Farm Separator

To the cream separator is due the great expansion of the cream gathering system and its popularity today in nearly every country where good butter is made. In 1886 the small hand separator for use on farms and in small dairies made its appearance. It is safe to say that it has effected a greater extension in butter-making than the introduction of the centrifugal force in cream separation in the first instance. The chief business of the cream separator manufacturer today is to turn out a machine that will best meet the needs of the farmer who keeps a few cows and will give him the best service for the money expended. The hand or the farm separator as it is often called, is so common in every dairy country today as to excite no comment.

And yet the most skillful workmanship and the services of the best trained artisans are required in its manufacture. If it does not run true and the material of which it is made is not of the very best, it will not do the work it is intended to do. The farmer who buys a cream separator has in his possession one of the finest pieces of mechanism that the ingenuity of man has produced. And still it too often receives less care from him than he gives his wheelbarrow or cultivator.

SELLING THE MACHINES.

Here at home we find the hand separator reaching out to all parts of Canada. It would be interesting to know how many of these have been placed on farms in Ontario, during the past five years. The number must be away up in the thousands. And the end is not yet. There are many different makes being handled today than ever before and each year sells the number sold increased by many hundreds. There are about as many avenues and ways of selling separators as there are of selling harvest machines. The chief work, however, is done by agents representing the manufacturer. Upon these individuals depend largely not only how many are sold but also upon how the machine will be cared for and handled by the purchaser. The agent, who ways render his employer the best service. By making extravagant claims, such as that his separator only needs a thorough cleaning occasional skimming is all that is needed after each milking is to run through some warm water, etc. One agent may sell

twice as many machines as another, who is too honest to make such claims. The former may sell more machines, but if the method of care he advocates is followed, these machines will not give the best service, and will react against the future business of the manufacturer. The honest agent, who instructs the buyer carefully as to the kind of machine he has purchased and the need for observing the strictest cleanliness in operating it, is rendering the manufacturer and the dairy industry, as well, the better service.

SPECIAL COURSE FOR AGENTS

But be that as it may, the separator agent is an important factor in providing better dairying methods among the farmers of the country. So important is he that the dairy schools might well consider the establishment of special courses of study for separator agents. Such courses need not necessarily deal with the mechanism of separators. It is presumed that a person engaged to sell separators would know all about the machine he is offering to the public, and considerable about the kind his competitors are offering also. But what would be advisable in a course of this kind, would be a thorough drilling on what milk is, how easily it may be contaminated by unsanitary or uncleanly conditions, how necessary it is to keep the separator always clean and sweet, and how to properly care for the cream so as to make the best quality of butter. An agent thus equipped would be able to serve his employer better and be in a position to assist the dairy industry very materially by instructing buyers of separators how to care for the milk and in the best way. Many agents on the road today already have this information. But it does not do anyone any harm to brush up now and again

and familiarize himself with the latest developments in the business in which he is engaged. For instance, one of the needs of the creamery business is thicker cream. Pointers of this kind are valuable for the agent to know, and the more he knows the greater his influence will be with intending purchasers.—J. W. W.

Don't put off seeing your friends and getting a club of subscriptions to Farm and Dairy.



SOME OF THE PROMINENT CANADIANS WHO USE THE De Laval Cream Separator

Sir William Van Horne, Ex-President C. F. R.
Sir Hugh Montague Allan, Head of Allan Lines Steamships
T. Eaton Co., Canada's Greatest Department Store
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*The answer to this question is taken from Bulletin No. 93, of the Pennsylvania State College.

Cheese Department

Makers are invited to send contributions to this department, and to send all matters relating to cheesemaking and to suggest subjects for discussion. Address your letters to The Cheese Maker's Department.

Eastern Dairymen's Convention

The next annual convention of the Eastern Ontario Dairymen's Association will be held at Belleville, Jan. 5, 6, 7, 1910. This was decided upon at a meeting of the executive committee of the association held in Toronto last week at the time of the Toronto Industrial Exhibition. The directors present included Senator D. Derbyshire, hon.-pres; R. G. Murphy, sec'y, Brockville; Ed. Kidd, M.P., North Gower; Chief Instructor G. G. Dubler, Kingston; G. A. Putnam, Director of Dairy Instruction, Toronto; J. H. Singleton, Smith's Falls; C. F. Whittaker, North Wingham; Henry Glendinning, Manilla; J. A. Whitten, Wellman's Corners; A. S. White, Sidney Crossing; T. A. Thompson, Almonte; J. A. Sanderson, Kempsville; Jas. H. Anderson, Mountain View.

A deputation from Belleville, headed by John Kerr and including John Miller, Casselton; J. C. B. Myers, Bessie D. Cassidy, F. Chas. B. Myers, W. Simmons, Belleville; S. T. Vandervoort, Sidney Crossing, waited on the committee and urged that the next convention be held in Belleville and promised to leave no stone unturned to make it a success. On motion, Belleville was selected and the dates already mentioned were decided upon. The following committees were appointed to have charge of the local arrangements for the convention:

Local Committee, Messrs, Jno. Miller, Casselton; A. S. White, Sidney Crossing; Ed. Kidd, North Gower; Bird, Stirling; C. B. Myers, Bessie; Jno. Kerr, Belleville.

City committee, Jno. Kerr, M. Sprague, F. W. Brenton.

LOCAL MATTERS

Senator Derbyshire reported that following the dairy meetings held last fall in Eastern Ontario more corn by far was grown in the counties of Leeds and Grenville than ever before. Messrs. Putnam, Pablow and Murphy were appointed to arrange the dates of the meetings to be held this fall and the speakers. Mr. Pablow suggested that the director in each district should endeavor to select the best possible local man in each district to address the local meetings. Men who are making a success of their work are always effective speakers in localities where their success is recognized.

"The great need in our section," said Mr. Whittaker, "is to show the farmers how to breed the best of produce. Too much milk feed is being fed."

Mr. Whitten felt that the illustrations given in his section last fall by Mr. Geo. H. Beal of Ottawa, had been worth thousands of dollars to the farmers in his section. They were worth probably \$400 to his factory alone. Never had he known such good results from such small meetings as attended those held last fall.

REFRIGERATOR SERVICE.

Mr. Singleton felt that the refrigeration service this year had not been satisfactory. The chief defect was that refrigerator cars were not available except where 20,000 lbs. of cheese were available for shipment. Thus such a large quantity that many shipping points have not been able to avail themselves of the service. He had shipped from seven or eight points but had not been able to take any one point to enable him to take advantage of it. Mr. Sanderson agreed with Mr. Singleton. Senator Derbyshire said that arrangements should

be made next year to start the service earlier in the season if hot weather should start at an early date as it did this year. The matter will be brought up at the annual convention.

It was suggested by Mr. Singleton that the Association should take steps to have the government enact legislation that will make it compulsory for factories to brand their butter as such. He knew of cases where whey butter had been palmed off as creamery butter, thereby causing trouble. Senator Derbyshire said that more whey butter was made in his section than anywhere else in the province and it was all consumed in the section. Mr. Pablow felt that there were some un satisfactory features connected with the manufacture of whey butter that would probably right themselves in time. Many factories, he thought, would obtain more satisfactory results were they to install pasteurizing plants instead of machinery for the manufacture of whey butter. This matter, also, will be brought up for further consideration at the annual convention.

Chief Instructor Pablow reported that 25 prosecutions for the adulteration of milk had been disposed of, resulting in the imposition of fines aggregating \$568.00, the average fine being about \$20. There were still 17 cases pending.

The Export Cheese Trade

We are now entering the season when the percentage of reduction in the make of cheese is estimated, and we notice that the guesses vary to a great extent according as the parties interested would like to see the market go, all of whom are in possession of facts upon which to build their hypotheses. These percentages range all the way from 10 to 20 per cent., while in some sections the make is said to be reduced as much as 25 per cent. all. These, however, must be small in number, as the recent cold nights must have had their effect in reducing the flow of milk. On the other hand we are reminded that the unusually late copious rains followed by sunshine have contributed to a considerable improvement in the pastures. Allowing therefore for all these circumstances it is safe to say that the usual seasonal shrinkage in the make is in progress.

The statistical situation shows an increase in receipts for the season up to September 14th of about 62,000 boxes in round figures, the totals being 1,294,535 boxes as compared with 1,232,642 boxes for the corresponding period last year. The exports for the season are 1,119,249 against 1,087,585 boxes for the same time last year, being an increase of 31,664 boxes. According to these figures there are in the here 175,000 boxes. The factories it generally admitted have been sold up pretty close, which is no doubt correct, considering the good prices farmers are receiving.

As regards prices in this market sales were made this week at 11½c to 11 13-16c. For Western, one lot of 500 bringing 11 7-8c. and at 11 1-4c. to 11 5-8c. for Eastern, the best doing very for Quelees and seconds at that.—The Trade Bulletin.

The Makers' Responsibility

The successful maker must have an intimate knowledge of the details of the business and of the varying conditions of the milk before he can do his work with a surety that the finished product will be of the best. It takes time, close application, skill and intelligence to produce a good article. If a maker could learn the actual condition of the milk, whether bad flavors will be developed after it is heated, or after it is converted into curd, when he takes it in at the weigh-

stand, a great many of the difficulties to be overcome in cheese-making would disappear. But he cannot always do this, though some patrons seem to think he can, and that when once their milk is in his hands the finest cheese should be made from it. It is because of this, that the maker must have his wits about him. A can of milk may be taken in on which it is difficult to detect anything wrong when the milk is cold in the weighing stand. This milk may develop flavors or some condition later on that may require a radical change in the treatment it should receive. It may cause the milk and the curd to ripen quicker than was expected. It may cause some injurious flavor to develop that may seriously affect the quality, if it is not checked.

The maker, therefore, must be ever on the alert to note these changes and to act accordingly. This is where skill, intelligence and close attention to business will win out. It often happens too, that no matter how skillful and careful a maker may be, some patrons may be able to produce a flavor that cannot be gotten rid of by all the known processes in making, and will show in the finished product. And occasionally a flavor may develop after a cheese is in the curing room, that the most skillful maker may not be able to detect in the milk or in the curd. It is because of these things that special training and wide experience is necessary in successfully managing a cheese factory. The daily routine of heating the milk, adding the rennet, cutting the curd, running off the whey, stirring the curd, grinding the curd, salting the curd and putting it to press are essential, but not the most important part of cheese-making. A little care and some mechanical skill would enable one to perform these duties very satisfactorily. It is the knowing when rather than the knowing how to do them that is important. The patron or other person who bases his knowledge of cheese-making on the doing of the mere mechanical part of the work is far from realizing what the real duties of the maker are, and what a large amount of careful training and close application to duty is necessary to successfully manage a modern cheese-factory.

It is special training and experience and his ultimate knowledge of so many varying conditions that make the makers' calling one deserving of special attention. The granting of certificates will help to place this calling on a higher plane, enable the maker to get a fair remuneration for his work, and furnish the factories with a guarantee that the makers they engage will do their work satisfactorily, then by all means it should be granted. The maker who has fully mastered his calling is deserving of some respect, and knowing this business he has shown that he possesses skill, intelligence, and close application to duty of a high order, and a certificate will be a means of convincing the public of that fact.

Overcoming Difficulties.—Milk has reached our factory in fairly good condition during the past season, excepting in periods of quick changes of weather from cold weather to extreme heat or sultry nights. The make this season is considerably less than in former years. The greatest difficulty that we have to contend with is sour milk. We overcome the difficulty by drawing the patron's attention to it in the forcible way of sending it back.—Wm. Greatrix, Hastings Co., Ont.

It seems difficult for patrons of creameries to grasp the idea that it is to their advantage to skim a thick cream. They do not know it, but who like to see a large quantity of cream from the semi-daily separation. Cream value is not represented by quantity. The Babcock test effectually discovers the butter-fat in the

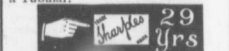


WHICH IS YOU?

Which of these women is you? One has consented to use a disk filled "buckett bowl" cream separator, and will spend twenty minutes twice a day washing the 40 to 60 disks it contains, as shown in the right hand pan.

One has insisted on having a simple, sanitary Sharples Dairy Tubular and will spend only twenty seconds twice a day washing the tiny piece in the left hand pan—the only piece Dairy Tubular bowls contain.

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The Science and Practice of Cheesemaking

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This is a new book that should be in the hands of every cheese-maker. It represents both the scientific and the practical side of cheesemaking. It not only describes clearly the different operations in the manufacture of cheese, but special attention is given to explaining the reasons for each step. It is a splendid book as a work of reference for the daily use of practical cheese-makers during the cheese-making season. It will help YOU to make a greater success of your work as a maker this summer. Send for this book to-day, and keep abreast of the times.

The book is profusely illustrated, and contains 460 pages, 6 inches x 7 inches.

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cream and when our pay cheques come back, they are figured according to the fat not according to the weight of the cream. Some fear that there will be a loss should they take a cream testing 30 per cent, and upwards. They need have no fear of loss in the skim milk when taking such a cream with any of the reliable machines.

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WANTED.—A situation as manager in a cheese factory or creamery in Alberta or British Columbia. Have had 10 years experience in Western Ontario factories. Have graduated, and also held a diploma from Guelph Dairy School, Box 25, Guelph and Dairy, Peterboro.

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ing now, but the joyousness had all gone from Mary's face, and Mrs. McGuire found herself losing all interest in Christian's struggles as she looked at Mary's face.

Once she saw the minister pass and she beat upon the minister's pinnacled knitting needle, but he hurried by, without looking up. Then the anger of Mrs. McGuire was kindled mightily, and she sometimes woke up in the night to express her opinion of him in the most lurid terms she could think of, feeling meanwhile the futility of human speech. It was a hard position for Mrs. McGuire, who had always been able to settle her own affairs with ease and grace.

One day when this had been going on about a month, Mrs. McGuire sat in her chintz-covered rocking chair and thought hard, for something had to be done. She narrowed her black eyes into slits and thought and thought. Suddenly she started as if she heard something, and perhaps also the angel who brought the inspiration may have whirred his wings a little.

Mary Barger was coming that afternoon to "re-up" a little for her, for her rheumatism had been very bad. With wonderful agility she rose and made ready for bed. First, however, she carefully examined the latch on her kitchen door. Now this latch had a bad habit of working itself if the door was closed quickly. Mrs. McGuire tried it and found that it would do this every time, and with this she seemed quite satisfied.

About half after three o'clock Mary came and began to set the little house in order. When this was done Mrs. McGuire asked her if she would make her a few buttered biscuits, she had been wishing for them all day. When she saw Mary safely in the kitchen her heart began to beat. Now if the minister was at home, the thing was as good as done. She watched at the window until Jimmy Watson came from school, and then, tapping on the glass, beckoned him to come in, which he did with great trepidation of some kind. She told him to go at once and tell Mr. Grantley to come for she needed him very badly.

Then she got back into bed, and tried to compose her thoughts into some resemblance to "invaldism."

When Mr. Grantley came she was resting easier she said (which was true), but would he just get her a drink of water from the kitchen, and would he please shut the door quick after him and not let the cat up.

Mr. Grantley went at once and she heard the door shut with a snap. Just to be sure that it was "snibbed," Mrs. McGuire tiptoed after him in her bare feet, a very bad thing for a sick-a-bed lady to do, too, but to her credit, he it written, she did not listen at the keyhole.

She got back into bed, exclaiming to herself with great emphasis: "There, now, fight it out among yourselves."

When the minister stepped quickly inside the little kitchen, closing the door hurriedly behind him to prevent the invasion of the cat (of which there wasn't one and never had been any), he beheld a very pale and beautiful young woman sifting flour into a baking-dish.

"Mary!" he almost shouted, hardly believing his senses.

He recovered himself instantly and explained his errand, but the pallor of his face was unmistakable.

When Mary handed him the cup of water, she saw that his hands were white; but she turned to her baking with the greatest of composure. The minister attempted to lift the latch, he rattled the door in vain.

"Come out this way," Mary said as sweetly as if she really wanted him to go.

She tried to open the outside door, also in vain: Mrs. McGuire had re-

cured it from the outside with a clothes-line prop and a horse nail.

The minister came and tried it, but Mrs. McGuire's work held good. Then the absurdity of the position struck them both, and the little house rang with their laughter—laughter that washed away the heartaches of the dreary days before.

The minister's reserve was breaking down.

"Mary," he said, taking her face between his hands, "are you going to marry Horace Clay?"

"No," she answered, meeting his eyes with the sweetest light in hers that ever comes into a woman's face.

"Well, then," he said, as he drew her to him, "are you going to marry me?"

The day had been dark and rainy, but now the clouds rolled back and the sunshine, warm and glorious, streamed into the kitchen. The teakettle, too, on the stove behind them, threw up its lid and burst into a tunder of bubbles.

The next time they tried the door it yielded, Mrs. McGuire having made a second bare-foot journey.

When they came up from the little kitchen, the light ineffable was shining in their faces, but Mrs. McGuire called them back to earth by remarking dryly:

"It's just as well I wasn't parching for that drink."

(Continued next week.)

The Upward Look

How Our Sins May Help Us.

For all have sinned and come short of the glory of God.—Romans, 3, 23.

We all sin, some in one way and some in another. God has promised to give us the victory over our sinful natures: But it seems inevitable that before that victory can be gained we must meet many discouraging failures.

Ever the sins that we commit, however, may be productive of some benefit. They serve to show us our own weakness. Thus, they should tend to make us humble, as well as patient with the faults of others.

They demonstrate to us also, the ingenuity of the devil. Satan attacks us at our weak points. Sometimes, when we feel confident of our strength and ability to resist sin, temptation leaps out on us unexpectedly and we fall. Such failures show us how necessary it is that we must ever be on our guard. We must pray constantly for the strength that we need to enable us to resist temptation.

Our sins reveal to us more and more the love and compassion of God. When we have sinned the Devil may whisper to us that we are so wicked that God will not listen to us; that there is no use asking for forgiveness. Thus he attacks us at another weak point. We must listen to such suggestions. Christ related the comforting parable of the prodigal son in order that He might illustrate for our benefit the joy it gives God to forgive us our sins when we realize that we have sinned, and humbly ask Him for pardon.

The history of the Israelites is one repeated of sin being repeated, and yet forgiven. Peter, although warned beforehand denied his Lord three. Yet, he was forgiven and permitted to render great service afterward for the cause of Christ. Surely his sin must have helped him by affording him an evidence of his own weakness.

When we have sinned we must realize that we have done that which was wrong, in the sight of God. Even if no one else on earth may know about it we must imagine that it is known to God and just as Peter, when he saw that he had sinned, went out

and wept bitterly, so must we humbly and earnestly ask God for his forgiveness. Possibly, however, our sin is still dear to us. We do not hate it as we should. Then we should ask God to show us the enormity of our offence. As long as we regard our sin lightly we are in danger of committing it again and God will not grant us the pardon for which we may ask. He knows, even if we do not realize it, that our petitions for forgiveness are framed by our lips and not by our hearts. God told us plainly the conditions upon which his pardon is granted when He said: "But if thou shalt say, 'I will be merciful to the Lord thy God, thou shalt find Him if thou seek Him with all thy heart and with all thy soul.'" (Deut. 4, 29).

In that sentence we are promised the forgiveness that we need and we are told how we must ask for it.—I. H. N.

Our Household Issue

During the past year, we have published several special magazine issues, devoted to various branches of farm work. We shall continue the special issues, on October 3, by publishing one specially adapted to the Household Department of Farm Life. This issue will be particularly devoted to articles relating to improvement of home conditions on the farm. Special articles on conveniences every woman should have, on farm heating, and lighting, telephones on the farm, garden work for fall, farm water supply, remodeling an old farm home, up-to-date methods of laundry work, home furnishings, etc., will be some of the chief articles. The question of purchasing from mail order houses will be dealt with in an interesting manner. Illustrations of farm homes with interior plans of same, also an interesting and valuable article, illustrated, regarding the use of kitchen cabinets will make up an attractive and valuable Household issue for our women readers.

Send in names of your women friends who are not subscribers to Farm and Dairy, these we may send them a sample copy of this special issue.

HINTS FOR THE HOLIDAYS

Why not send for one of our New Premium Lists and make a selection of several premiums which you would like to earn for the Holiday Season. You can earn them in a short time, and save buying gifts at Christmas time. A club of new subscribers for Farm and Dairy is easily secured.



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Brighten Up

The Fall is an excellent time to paint your buildings. The weather as a rule is more favorable for painting in the Fall than any other time—less damp and rain to soak the lumber before painting, and no flies and insects to stick to the wet paint and mar or spoil the surface. If your buildings need paint protection from the winter storms, do not delay. Paint them this Fall. Ask your dealer for

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 a telephon

Reason with Children

There are so many ways in which to correct children, and there are so many things to correct, that the wise mother must be constant in her endeavor to not only teach the child that he must do this or that, but why he must do it.

Children are so queer in their reasoning powers and so apt at application, that a reason once given why a child must not slam the door, or upset a glass of milk, will only lessen the "no, no, don't do that," which seems to comprise many a mother's sole conversation with her child. But it will instill into the growing mind the law of kindness and incidentally of good manners. Too often the determined mother fights herself with the resolve to make Tommy learn to mind, if it kills her. And if she persists in this method, she will do much towards it.

My neighbor has a little boy four years old, one of whose duties it is to bring in small sticks of lightwood



The above illustration shows a concrete school building at Bell's Corners. This building is a new one this year, consequently the exterior of the building is not as attractive as it will be another year. It is the intention to have several flower beds and trees planted around this building next year. This seems to be a good style of school building for rural districts. It is credit to any locality.

from the cellar. His mother had a caller and naturally he came around to hear them talk and forgot the wood.

"Charlie, get that wood. Do you hear? Mind me this minute," and the child dragged his heavy feet away while tears rolled down his cheeks.

"How nice it is," the caller said pleasantly," that Charlie in such a big boy, four years old, that he can help his mamma by bringing up wood."

The effect was wonderful. The child straightened up like a young soldier, held his basket firmly and marched away to fill the woodbox, his face beaming with pride.

Reason with your little ones; help them to grow by showing them the why and wherefore, and stimulate their pride by doing things well.

Telephones on the Farm

Conviviality being a necessary element in the lives of young people, distance from friends, from the centre of activities, from the post office, etc., do not assist in making that conviviality possible.

So the farseeing farmer figures it out this way: "I'll make my household happy, (and so myself) by making work as light as possible, and the hours of recreation as long and pleasant as possible." He knows work is made light by assistance—machine or hand. He knows recreation is made long and pleasant by aids of joyfulness commingling with the people in festivities, chats with friends, trips etc. It is surprising however, what difficulties surround "party" arrangements in the country, especially where great distances separate the principals, and mail delivery is slow. In ordinary cases everything is entrusted to luck.

In the case of the enterprising farmer, his wife and daughters find a telephone as their ready aid. The

farmer only subscribed for "business" purposes, and as such the phone paid for itself.

But here is another use he sees for it—without gratification to his entire family.

Advantage of Fall Fairs

When your friends come to visit you at the time of the Fall Fair, show them your copies of Farm and Dairy. If they are not subscribers they should be. Win one of our new premiums, by securing a club of your friends to subscribe. No better time to see them than when attending the Fall Fair in your neighborhood. Mention to

them our Special Household issue, October 6. Send for our Premium List, and sample copies.

Dairy Farm Contest

I am very much interested in Farm and Dairy's good farm contest. I wanted my husband to enter our farm but he said that as the whole farm must be entered ours was not quite ready, as we bought 50 acres two years ago and it has some quack grass and soy thistle. He is using corn and buckwheat to clean it up. We have 18 acres of alfalfa hay and expect to sow more next spring, all being well.—Mrs. Frank Webster, Victoria Co., Ont.

The Jelly Bag

It is quite difficult to arrange the jelly bag when making jelly so that it is easily managed. A very good plan is to hem the edge of the bag over a large embroidery hoop. Sew a tape firmly to the hoop by which to hang it when put to drain. With this arrangement the hot fruit may be poured without spilling and there is no danger of the bag slipping or burning oneself. A jelly bag should always be made with a point or angle at the bottom to insure the maximum of pressure.

Our New Cook Book free for only two new subscriptions.

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THE COOK'S CORNER

Our New Cook Book given free for two new subscribers to Farm and Dairy, at 81 each. Receipts for publication are requested. Business regarding cooking, recipes, etc., gladly answered upon request. Write to Editor, Farm and Dairy, Peterboro, Ont.

BAKED LIVER.

Buy calf's liver in a whole piece and wash and place in a baking pan. Make four slits across the top with a sharp knife and place a fat piece of bacon in each. Sprinkle well with fine cracker crumbs. Salt and pepper to taste and add a little water. Bake for two hours, basting often and adding water as it boils away.

COFFEE CAKE.

Three-quarters cupful melted butter, 4 whole eggs beaten, 1 cupful of granulated sugar, one cupful of sweet milk, 2 1/2 cupfuls of flour, 2 1/2 teaspoonfuls baking powder; sprinkle top with cinnamon, sugar and chopped almonds; bake 3/4 of an hour and serve hot.

ONION SOUP.

Its blessings are many. Slice and peel four (medium) onions; let simmer in boiling water for about five minutes, then drain and dry. Put one tablespoonful of butter in a pan and when hot add the onions; let onions cook in butter for about ten to fifteen minutes. Add one pint of boiling wa-

Care in Preparing Food.

In recent years scientists have proved that the value of food is measured largely by its purity; the result is the most stringent pure food laws that have ever been known.

One food that has stood out prominently as a perfectly clean and pure food and which was pure before the enactment of these laws as it could possibly be, is Quaker Oats; conceded by the experts to be the most health food for making strength of muscle and brain. The best and cheapest of all foods. The superiority of Quaker Oats over all other oat-meals is due to two things: the greatest care in the selection of the finest oats obtainable, and the special machinery by which this oats is cleaned, rolled and packed. The Quaker Oats Company is the only manufacturer of oatmeal that has satisfactorily solved the problem of removing the husks and black specks which are so often annoying when other brands are eaten.

FOUNTAIN PEN FREE

To every lady and gentleman, girl and boy, for selling on 12 packages of our Aunt Fannie's, will give absolutely free a Fountain Pen. Do not delay: send to-day; send no money, only your name and address, to

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Improved Roller Gear - Covered - are only two of its many improvements. Beautifully finished in Oak, Royal Blue or Wine Color, and Silver Aluminum. Write for booklet about this most universal favorite, if your dealer does not handle them.



DAVID MAXWELL & SONS
St. Mary's, Ont.

ter and let simmer until onions are soft - from forty to sixty minutes. Mash in a sieve over pan in which they were stewed, add one cup of milk, and when hot cook one scant tablespoonful of flour in one tablespoonful of butter; add the liquid gradually until thin enough to put into the whole. Add one tablespoonful of salt and one-fourth of a spoonful of pepper. Onions will stand a great deal of pepper. Just before serving, beat the yolk of one egg with one cupful of cream and stir them quickly as it is taken from the fire.

BREADED LIVER.

When frying liver and bacon, try cooking the liver in the following manner, and you will be surprised how tender it will be. It will be as tender as chicken liver and will not curl up and get hard. Dip first in egg beaten with cracker crumbs and fry a golden brown. This makes an excellent dish.

WHITE CHERRY SALAD.

Use large white canned cherries. Take out the seeds and into each cherry insert a silbert. Serve on lettuce leaf with sweet mayonnaise dressing.

NUT WAFFERS.

Beat 2 eggs and cream them with a pound of butter in a mixing tin in a rounding tablespoonful and a half of flour which has been sifted with a quarter of a teaspoonful of baking powder and a saltspoonful of salt. Add a cupful of English walnuts or pecan nuts broken in small bits. Drop the mixture on buttered tins, placing a whole nut meat on the top of each, and bake until a nice brown color and cooked through sufficiently.

OUR HOME CLUB

Games for the Family

The farm home is one of the most important features of our Canadian life. From it go the first men and women of our land and what is incalculable in them, will be handed down "to generations yet unborn."

Where there is a family of boys and girls, outdoor sports should be indulged in, in abundance during the summer. Lawn tennis, bowling, croquet, baseball and football are helpful exercises to spend the last fleeting hours of daylight at. In a short time, the boys and girls from the neighboring farms will learn to hurry up their chores to come up for an hour's amusement.

Some will say it is all very well to talk of such games when I am out pitching hay or hoeing turnips, but then these games are so different in exercise, that before you have played the first game to a finish you will forget you were ever tired. I know that

I am talking about too. I have been in an office working until six o'clock, then going home, taking tea, when I was too weary to eat; take a good bath and change of clothes and presto change! I could play croquet when we had to tie handkerchiefs around the hoops to distinguish them and at ten o'clock I felt fine.

Now I am on a farm with the charge of a house and nine or ten persons to keep well fed, three and sometimes four times a day. At 7.30 or 8 o'clock I am usually ready for my bed, but then there is the croquet lawn just outside the door and a few nice and new neighbors and my own boy clamoring for just two games and before I am aware of the fact, it is past their bed time. After seeing them safely tucked in for the night, I start a letter to our Home Club, but I will not send more until "The Doctor," "Aunt Faithie," and a few others write. - "Mother."

WHEN BOYS STAY ON THE FARM.

Very often boys stay at home on the farm without the slightest idea of what they are to get, either by the year or when the farm is divided. This in my mind is very far from right because every boy should work with some definite aim.

It is a sad thing for a young man to stay at home until he is probably twenty-five and then to find out that the farm is mortgaged heavily and there is nothing before him but drudgery to pay off this mortgage. Then again he may wish to start up a house of his own and he has either to bring his choice home, or to go to town and work for some one else at laboring wage because he thinks he is too old to learn a trade or profession.

Why not take the boys into your confidence and have a definite understanding so that they will know exactly what they are doing? - "The Doctor."

VOTES FOR WOMEN.

I have spent my spare time of late in reading the letters of the various members of the Home Club. I like the way "Aunt Faithie" touches the auto question. She is certainly on the right track. I wonder if she could be persuaded to give us her ideas on that all pervading theme, "Votes for Women." I may be able to send my own opinions on the same subject soon. - "Uncle Dick."

When covering an ironing board make it on the principle of a pillow slip, making it the shape of the board and very tight to prevent wrinkling. It is a good plan to have several of these covers, so they can be frequently changed and laundered.

Have you won any of our new premiums? If not, better send for Premium List at once.

One New Subscription to Farm and Dairy

The best premium offer yet. Patent nickel Tension Shears

Shears that are always sharp; always ready to cut anything and everything. The best shears for every purpose in the household.

Best nickel 8 inch Tension shears given away absolutely FREE for only ONE NEW SUBSCRIPTION TO Farm and Dairy.

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Patterns 10 each. Order by number and size. If for children, give age; for adults, give bust measure for waists, and waist measure for skirts. Address all orders to the Pattern Department.

PRINCESS COSTUME 643

Princess costumes are smart in effect, and promise to continue in fashion for a long time. This is made after one of the new ideas for dresses with a flounce that provides graceful and becoming fullness and flare while it is smooth fitting at the body portion and gives the contrast of soft and stiff.

Material required for medium size is 1 1/2 yds 34 or 36; yds 32 or 6 1/2 yds 41 in wide with 1 yd 18 for belt, yoke and cuffs; width of skirt at edge 4 yds.

The pattern is cut for a 34, 35, 38, 40 and will be mailed on receipt of 10 cts.

GIRL'S DRESS WITH GUMPE 641

The dress is made in the front and back with straight plaited portions. These portions are joined to the panel and body portions and the closing is made at the back.

The girls' dress includes full sleeves that are gathered into bands, whether they are made short or long.

Material required for the medium size (8 years) is 4 1/2 yds 34, 3 1/2 yds 32 or 2 1/2 yds 44 in wide for the dress; 1 1/2 yds 36 in wide for the gumpe with 3/4 yd of tuckings for the belt.

The pattern 641 is cut for girls 4, 6, 8 and 10 years of age and will be mailed to any address on receipt of 10 cts.

MISSIE'S COAT 639

The coat is made with fronts, side fronts, back and side backs. The seam extends to the shoulders, so giving slender and becoming lines and the shawl collar finishes to neck.

The sleeves are in regular 3/4 length. When the belt is used it is slipped through slashes, which are cut and bound on indicated lines, and there are the patch pockets, which make such a feature of the season arranged over the side front.

The quantity of material required for the 16 yr size is 5 1/2 yds 27, 2 1/2 yds 44 or 2 1/2 yds 56 inches wide with 3/4 yd of satin for collar.

The pattern 639 is cut in sizes for girls 14 and 16 years of age and will be mailed to any address on receipt of 10 cts.

NEW JACKSONVILLE

der way. The rain has been since his wheat and but the frost kills hardly ripe slightly touch is not raised grain; it does We cannot get to the area of spare time plan their early po planted for Green Mountain blers are yield. It is not and will likely begins. No ha 66 a cow. - W.

COMPTON'S

most all done through grasshopper. Shurbrooke fair most successful was shown in b

THE Black On a T Black C Stand

Our new Fall Fashion catalogue is out, and copies can be secured by remitting us 15 cents in stamps, to cover postage. This catalogue contains 75 pages of illustrations for fall styles. Remember three patterns given away absolutely free, in return for one new yearly subscription to Farm and Dairy at 81. Write Peterboro, Ont. Farm and Dairy, Peterboro, Ont.

OUR FARMERS' CLUB

Contributions Invited.

NOVA SCOTIA

KING'S CO., N. S.

During the latter part of August and the beginning of September, heavy rains came to freshen the pastures, which were crisp and brown. The apple crop has been seriously affected by the very weather, also raspberries, but the showery season in time to help the blackberry crop. Fall plowing has commenced, and rough meadow land is being brought into shape with the aid of oats. The principal grain crop is now being harvested. Here and there one sees a patch of wheat or barley, but the farmers of Annapolis Valley better to raise apples and hay flour, as the soil is not heavy enough for wheat, as the rye crop was excellent. Root crops are being done. Corn and potatoes have yielded abundantly and potatoes promise well. A number of young men have left the country in order to join the harvesters' excursions bound for the western prairie fields. On the lands of the Annapolis River, hay is still being harvested. All kinds of feed are high and the cost of living is still on the rise. Tomatoes began in the Halifax market at \$1.25 but during the glut at the beginning of September they dropped to 75c. The canning factories do not like to handle them as they claim that they cannot compete with Ontario canners; they prefer to can French Canadian apples. Apples are making from \$1 to \$3 a bush; corn, 15c a dozen—Eunice Watta.

PRINCE EDWARD ISLAND

KING'S CO., P.E.I.

CARDIGAN BRIDGE—Farmers are busy with the harvest, which is very backward on account of the heavy rains and storms we have had lately. There is quite a lot of grain cut and in stock but very little threshed (Sept. 25th). Root crops are doing well, especially the turnips. Grain is becoming very slowly owing to wet weather. There is a slight show of rust on the straw, and the wheat fields have lodged badly. The late wheat is looking fine and promises to be a good crop.—H. W. P.

NEW BRUNSWICK

CARLETON CO., N. B.

JACKSONVILLE—Harvesting is well under way. There is a considerable amount of grain which is hardly fit to cut yet. Rain has hindered harvesting operations somewhat. There has been a good deal of rain since having been finished. Oats, wheat and buckwheat are the principal grains raised. All will yield well unless the frost kills the buckwheat, which is hardly ripe yet. It has already been slightly touched by a light frost. Barley is not raised except mixed with other grain; it does not pay to raise it alone. We cannot get more than 20 or 25 bus. square time plowing; others are digging their early potatoes. Irish Cobblers are planted for early and Delaware and Green Mountains for late. Irish Cobblers are yielding very well and bringing about 120 lbs. Oats are 65c a bush, and will likely be as good as threshing begins. No hay moving yet. Live hogs 45c a cwt.—W. R. McC.

QUEBEC

COMPTON CO., QUE.

COMPTON CENTRE—Harvesting is almost all done. Oats was a fair crop, almost everywhere, and a good deal of the shrunken ears has just closed after a was shown in both horses and cattle. Al-

though rain interfered the average crowd attended. Feed is very short in the pastures and cattle are looking poor. Cows are giving very little milk on account of short feed. It was less than a bad year for a lb. butter from 25c to 27c; eggs, 25c; potatoes, 45c and 50c a bush.—H. O.

ONTARIO

HASTINGS CO., ONT.
THE RIDGE—Harvest is all out with the exception of a few better than half wheat. Hay was a little better than half the crop. Oats were thin but well loaded while late corn showed good average. Peas are good and buckwheat crop, also potatoes, are turning well. We are having lots of rain which makes good for grass for the fall pasture.—A.B.C.

DURHAM CO., ONT.

BETHANY—The harvest is pretty much all out and mostly all in the barn in good condition. Crops, taken all over, were a fair average, and may yield well to the amount of straw. Fall wheat was rather thin, but will bring well. Oats, barley and other grains are thin. The corn crop is very good and will balance for the lack in other orders. The roots are looking more favorable to an average crop than they have for some time past, due to the frequent showers. Stock is somewhat thin owing to the pasture drought.—W. M.

NORTHUMBERLAND CO., ONT.

EDVILLE—The white grub has been somewhat destructive to the growing crops. Mr. W. E. Cochrane, who has about five acres of corn, has lost a considerable damage done by them to his tomato vines and Mr. C. S. Hinman lost about three acres of buckwheat. A large field owned by this grain, of which very young plants was eaten off. The same result was experienced where it was reown, and to-day the crop is only a little better than a very living plant. We had quite a sharp wind to hurt buckwheat, but not hard enough to hurt the corn. The wheat is showing intensively, and which is looking well.—S. H.

HALIBURTON CO., ONT.

KINMOUNT—Harvest is about over. The heavy frost which occurred on the night of Aug. 25th followed by heavy rain on the 26th and a general shower on Sept. 1st, has damaged the corn, destroyed the gardens, also potatoes and buckwheat. Late rains have ruined the pastures, so the cattle will be in good shape for the winter. Threshing will be general this week, as will also the rains. Roots have come on wonderfully during the last two weeks. The butter market is still poor—12c a lb. for the best. A load of cattle and sheep sold for 3c a lb., and 1c for lambs. Apples are plentiful at 50c a bag.—S. T.

OXFORD CO., ONT.

BRIGHT—Oat harvest is just about completed. Peas are ready to harvest. We are having a very dry spell. A number of wells are going dry. Pasture is done. We are handling out green corn to the cows.—W. C. S.

MIDDLESEX CO., ONT.

THORNDALE—Alfalfa is nearly up to our knees again. It has been very dry for late—only a couple of small showers. Pastures are all very dry.—R. H. H.

MELROSE—Through this village flows a beautiful spring creek; along its banks the pasture is always of the most excellent. Many large elms and other wood-land afford an ideal place for all kinds of stock, where the animals are fed with water and the richest of herbage. About a mile south of the village on the farm of Mr. Alway, there is a beautiful grove of trees for re-foresting that is the nearest approach seen. Here a grove of perhaps an acre has been planted out with walnuts. These trees have attained a height of about 25 feet, and form a shady retreat already. The corn and potatoes look very good. Some fine fields of alfalfa are ready for sale. Oats in many places looked O.K., the straw is tall, and has the goose-neck bend that denotes a first rate crop. The apples are already weighing; the branches downward and appear sound and free from blight. Well set buds are seen in several places, and flowers glare are everywhere.—J. E. O.

HURON CO., ONT.

GODERICH—Grain crops are nearly all harvested and the animals are begun. Fall wheat, which had a rather poor start last fall, and was retarded in growth in July, is now yielding well, ranging from 15 to 40 bush an acre, an average of about 25. Oats (though late, were a fair

LIVE HOGS

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THIS WEEK'S PRICES FOR HOGS DELIVERED AT FACTORY

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FOR HOGS WEIGHING 160 TO 220 LBS.

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crop, with good clean straw and well-filled grain. They averaged about 35 bus. straw, yielded about 30 bus. No. 2, although only a small acreage is yet grown. Here, has shown a marked superiority over the Mandsehour. Roots and corn are in the very best condition for a heavy D. G. S.

BRUCE CO., ONT.

HEPWORTH—We had the first frost on the night of September 1st but it was very light and did but little harm. Corn is shorter than usual and later in heading out. Pasture is still quite bare; those that have corn to feed their cows are keeping up their milk flow, but with those that have no corn their cows are falling rapidly. Harvesting is very late. The fields of peas not yet pulled (Sept. 6th). Other grains—all out.—J.K.L.

MANITOBA

MARQUETTE CO., MAN.
KELLOE—Crops in Southern Manitoba and in the district south of here, have been cleaned out pretty well with hail. Some of the crops here were touched a little, but not enough to do much harm. The average crop, speaking generally, is light this year, except that on freshly broken land, our farmers grow very little wheat. Most of them go in for oats instead of wheat. One farmer only living in this district has wheat; his is of good quality. A light frost the night of Aug. 25th "cooked" cucumbers and tomato plants, though it did not damage the grain.—L. N.

BRITISH COLUMBIA

NEW WESTMINSTER CO., B. C.
MUNRO—The crops are excellent. Many people have threshed; the grain went from a ton to two tons an acre. Live stock looks well on account of the recent rains freshening the grass. The fruit crop is poor on account of the ice storm last winter breaking the trees down.—J. M.

GOSSIP

FREE SAMPLE OF AMATITE
Many Farm and Dairy readers may not know that the makers of Amatite Roofing distribute free samples for the information of prospective purchasers. Some of our readers have probably doubted that a roofing could be made which would need no convincing evidence that the sample of Amatite in your article on the practical merits of this surface has been invented. Sending for a free sample does not entail any obligation and there is no charge—not even for the postage. With the sample is sent a little picture telling all about Amatite and showing its position in all parts of the country where Amatite has given protection to numerous buildings. You may drop a postal card to the nearest office of the Paterson Manufacturing Co., Ltd., Toronto, Montreal, Winnipeg, Vancouver.

I have been reading Farm and Dairy for nearly two years with a good deal of pleasure and profit. One day this week I pointed out to a neighboring farmer, in a recent issue of Farm and Dairy, the acknowledged to be an expert article—J. B. Weldon, Victoria Co., Ont.

Don't get off seeing your friends and getting out of clubs of subscriptions to Farm and Dairy.

FALL FAIRS

Attention!

An opportunity to earn a little cash, or one of Farm and Dairy subscription premiums. Get your friends and neighbors who visit your Fall Fair to subscribe for Farm and Dairy. We will send sample copies to anyone asking for same. Show them to your friends—they will need no urging to subscribe to the best agricultural weekly in Canada. Clubs easily secured.

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It will help you
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Out of the Hog Business

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BLACK WATCH

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Stands for Quality.

September 16, 1909.

Madoe, Sept. 8—530 boxes of cheese boarded, all sold at 11 1/2c.

Brookville, Sept. 9—2,400 boxes registered, 875 white and the balance colored, 535 boxes sold at 11 1/2c.

Belleville, Sept. 9—1,990 white and 170 colored; milk, 615 and 150 at 11 1/2c; 516; balance refunded at 11 1/2c.

Kingston, Sept. 9—304 boxes of white, 167 boxes of colored; 706 boxes sold at 11 1/2c.

Kankakee Hill, Sept. 9—1,201 white and 256 colored. The price offered for both colored and white was 11 1/2c; and at this price nearly all was sold on the board.

Wheatster, Sept. 9—294 white; the price offered was 11 1/2c, no sales.

Russell, Sept. 9—438 cheese boarded, of which 246 sold at 11 1/2c and 160 at 11 1/2c.

Alexandria, Sept. 9—574 factories boarded.

Listowel, Sept. 10—Four factories boarded, 1,197 boxes of white cheese; bid 11 1/2c; sales made.

Ottawa, Sept. 10—1,491 boarded, 240 white and 1,251 colored; 688 sold, mostly colored, at 11 1/2c.

Napanee, Sept. 10—1,110 colored and 615 white sold at 11 1/2c.

Windsor, Sept. 10—15 factories boarded.

L.71: All colored; highest bid, 11 1/2c; 1,366 sold.

Windsor, Sept. 10—617 colored and 70 white cheese offered; 11 1/2c; bid no sales.

Kempville, Sept. 10—390 colored cheese registered. The highest price bid was 11 1/2c.

Huntingdon, Que. Sept. 10—985 boxes of white and colored cheese boarded and sold at 15 1/2c.

Perth, Sept. 10—1,200 boarded; 1,000 white and 200 colored; all sold at 11 1/2c to 11 1/2c.

London, Ont., Sept. 11—675 colored cheese offered; 160 sold at 11 1/2c.

St. Hyacinthe, Que. Sept. 11—400 boxes of cheese sold at 11 1/2c.

Caston, N. Y., Sept. 11—1,600 boxes of cheese sold at 15c.

Watertown, N. Y., Sept. 11—6,000 cheese sold at 15c to 15 1/2c.

Fair at Guelph, for several years. His stock is quite up to date, and the most modern type. Anybody wishing to get such, can rely upon Mr. Wright to get such as described, and that at reasonable prices.

HOLSTEIN-FRIESIAN NEWS

Farm and Dairy is the official organ of the Canadian Holstein-Friesian Association. All members are readers of the paper. Members of the Association are invited to send items of interest to the editors for publication in this column.

COW TRANSFERS FOR JUNE, 1909.

The publication of these transfers is paid for by the Holstein-Friesian Breeders' Association:

(Continued from our last issue.)

Gipsy Bell 2nd, G. A. Gilroy to Herbert Sturgeon, Glen Bell, Ont.

Gipsy Queen, Wm. C. Stevens to Gordon H. Manhard, Manhard, Ont.

Hard to C. J. Fairview, Gordon H. Manhard, C. J. Gilroy, Gully, Ont.

Groeten B. John, A. B. Hahn to D. Austin & O. G. Roeder, Ripley to W. E. McCormick, H. E. Lulu, J. M. Stevens to M. C. Fly, Sturgeonville, Ont.

Helenfeld Echo De Kol, A. D. P. Oyster to J. Foster, Bloomfield, Ont.

Hepsey, Ripley to W. E. Smith, Lansdowne, Ont.

Honkies Bees De Kol, A. E. Hulet to Thos. King, Golden, B. C.

Hilda Burnside, Estate of James H. Wylie to John W. Wylie, Almonte, Ont.

Houtwienema, Harry Bate to Charles E. Boren, Kyrle, Ont.

Ideal's Bibby, Ernest A. Hubbs to H. Dermot & R. McFarlan, Thameford, Ont.

Inka De Kol Pieterje 3rd, W. B. Brown to A. C. Hard, Brookville, Ont.

Inka Sylvia 5th, Wm. C. Stevens to R. J. Sturgeon, Manhard, Ont.

Jacoba Bookers, W. Pineo to Logan Bros., Amherst, N.S.

Jeanie Pouch, Estate of Jas. H. Wylie to John B. Wylie, Almonte, Ont.

Jimima Colantha, Munroe Pure Milk Co. to Geo. H. Jones, Ferris, Ont.

Jimima Piebe De Kol, Munroe Pure Milk Co. to Geo. H. Jones, Ferris, Ont.

Jimima Teak, Fairview, Gordon H. Manhard, C. J. Gilroy, Gully, Ont.

Johnnie Abner, De Kol, J. M. Stevens to H. Manhard to H. D. McLeod, Golden, B. C.

Jennie Lind & Norwich, Herbert Clark to Miles Hartley, Norwich, Ont.

Jennie M., Estelle, Hartley to Charles F. Yates, Hatchley, Ont.

Jennie M., Estate of Jas. H. Wylie to John B. Wylie, Almonte, Ont.

Jenny Wayne, J. H. McLean to Gilbert Gray, Venice, Ont.

Jewel Dinkle, Gordon H. Manhard to J. D. Trumold, Spring Valley, Ont.

Jewel Lady 2nd, W. Pineo to Logan Bros., Amherst, N.S.

Jewel Princess, Wm. C. Stevens to Gordon H. Manhard, Manhard, Ont.

Jewel Princess 2nd, Gordon H. Manhard to G. A. Gilroy, Gully, Ont.

Jewel Princess Pet, G. A. Gilroy to John M. B. Grier, Wileford, Ont.

Johanna De Kol, Chas. H. Willoughby to Elmer S. Davis, Smith's Falls, Ont.

Johanna Hengerfeld De Kol, W. B. Brown to Benj. Leavens, Bloomfield, Ont.

Jonette Trinidad's Lovella, Homer Moore to Frederick L. Moore, Addison, Ont.

Moore to T. D. Lovella, Frederick L. Moore to T. D. Lovella, Spring Valley, Ont.

Josephine Teasie Daisy, Munroe Pure Milk Co. to T. E. Brewster, Pearson, Ont.

Justa Sylvia 2nd, Jas. J. Riley, Jr. to Annie Sylvia 2nd, G. A. Gilroy to Geo. Death, Lake, Ont.

Justa J. McLeintyre to John Hopkins, Kate, Widge, Ont.

Kate, Widge, Ont. to John A. Chant to E. D. Chambers, Fairfield Plain, Ont.

Kathleen, R. F. Hicks to Thos. King, Golden, B. C.

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Katie Bookers, 2nd, W. Pineo to Logan Bros., Amherst, N.S.

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Lady Agnes Hengerfeld, W. B. Brown to Benj. Leavens, Bloomfield, Ont.

Lady Bessie De Kol, John Kingston sr. to J. W. Kingston, Keston, Ont.

Lady Bonnet, Keston, Ont.

Lady Bonnet, Keston, Ont. to Robert Nesbitt, Carman, Man.

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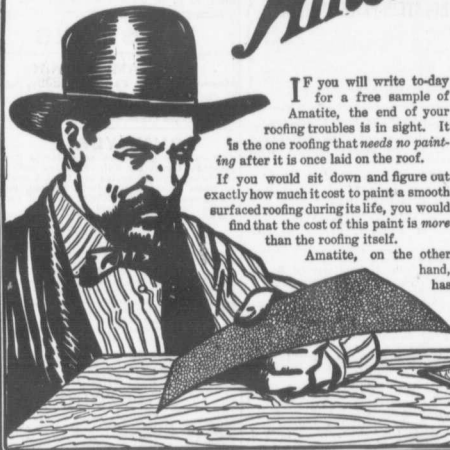
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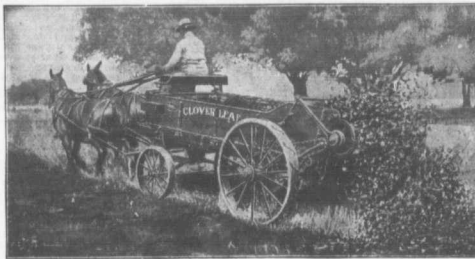
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