

Tenth Annual Dairy Number

FARM AND DAIRY

RURAL HOME



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COUNTRY LIFE



Toronto, Ont., April 11, 1918



A WINNING QUARTETTE—COWS, CORN, GRASS AND SHADE.

Dairy Prospects for 1918

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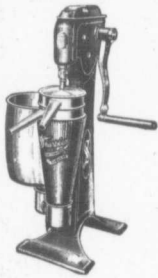
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The Outlook for Canadian Dairying in 1918

A Survey of Present Conditions and a Forecast of Future Production by Men Closely in Touch with the Situation. The Difficulties Are Many, But Prospects Are Bright

Nova Scotia Dairying

W. A. MacKay, Dairy Superintendent.

THE severe winter combined with the other influencing factors will no doubt have a certain detrimental influence on the amount of dairy products produced in Nova Scotia, at least during the spring season in some parts of the Province feed is getting very scarce. In fact in Cape Breton the Government has had to give aid in getting hay to carry the stock through and, at the present time, 60 car loads of hay are on the way to relieve the situation here.

The Nova Scotia dairyman is up against another problem. In the past large quantities of the short feed used was imported from Western Canada, as well as tremendous quantities of fertilizers of one sort and another. This never left a satisfactory margin of profit even when fed to good cows, let alone the average cows, but now these are being cut off to a certain extent and the prices have advanced to such an extent that the price of feed is almost prohibitive. There is no doubt, however, that while this is making a difficult problem at the present time, it is after all a blessing in disguise and the dairyman is being forced to produce his own feed, and in so doing produces his own fertilizer, as his forefathers did, and will eliminate the great waste that at present exists and will have to be overcome before dairying will become permanent.

Creamery buttermaking showed a decided increase in 1917. It is hoped that 1918 will show a much greater increase, but to do so requires the united effort of all concerned, and it appears to the writer that there is no more patriotic duty that dairymen can do this year than to increase just as much as possible along the lines of production in the Province, where he has already made a start.

A Dairy School for the creamery buttermakers of the Maritime Provinces was held at the College of Agriculture, Truro, from March 13th to March 26th, and for the cheesemakers from March 27th to April 4th. Altogether 71 enrolled for the creamery course, quite a number being young ladies, who are taking the milk testing work in connection with the accounting at a number of the creameries and will attend the cow testing in some cases under the new regulations from Ottawa. This course is along the same lines as the one held last year and is unique in its character, inasmuch as it is the first real tangible effort toward a Maritime Agricultural College and a union of the agricultural interests in these three provinces. The overhead expenses are met by the three provinces.

There is a decided increase in the amount of milk produced per cow in the creamery districts in the last few years, due to the influence of the creamery coupled with the Record Centres for cow-testing that has been carried on, and while no definite figures are available for the whole province, the results from the cow testing centres as given below, published through the courtesy of the Recorder for that district, will show the progress that has been made, considering that five years ago this was an average district, producing about 3,500 lbs. milk per cow.

| Patron's No. | Cows | lbs. Milk | Ave. lbs. Pat. Value. | Ave. Cost/Feed | Ave. Profit |
|--------------|------|-----------|-----------------------|----------------|-------------|
| 1 | 4 | 4,139 | 163.8 | 72.62 | 70.85 |
| 2 | 5 | 4,738 | 225.3 | 101.90 | 31.85 |
| 3 | 5 | 6,202 | 275.2 | 124.19 | 6.397 |
| 4 | 5 | 5,205 | 291.4 | 139.94 | |
| 5 | 5 | 5,027 | 233.1 | 106.17 | 41.59 |
| 6 | 2 | 4,165 | 171.7 | 76.04 | |
| 7 | 3 | 5,439 | 227.6 | 102.65 | |
| 8 | 3 | 9,113 | 312.5 | 140.64 | 99.89 |
| 9 | 2 | 5,093 | 252.4 | 94.61 | |
| 10 | 3 | 8,509 | 327.1 | 148.43 | 66.90 |
| Average | 4.2 | 5,882 | 245.0 | 110.01 | 60.06 |

Increase Expected in Quebec

J. C. Chappais, Assistant Dominion Dairy Commissioner.

I HAVE been asked to write my impressions as to the prospects for dairy production in Quebec for the next season. Speaking more especially of the section of Eastern Quebec, with which I am more familiar, we have some reasons to hope for a profitable season. Our dairy cattle are in good condition, having been amply fed with plenty of hay. Hay is the only plentiful crop that we had last year, and account of the very wet weather during haying time we had not what we could call a whole crop of good hay, but, nevertheless, a great quantity of it was at hand and our cattle could thrive on it. The second reason why we may hope a good quantity of milk next summer is, that we are increasing the value of our dairy cattle through the organization of cow-testing associations, and the third is that, through our farmers' clubs, we are getting, from year to year, better and more pure bred dairy bulls, which enable us to increase the number of good cows.

We had, in 1917, over 11,000 more cows than in 1916. As our farmers are raising more heifers in the past three years than they used to, we have good reason to hope that we will have in 1918 many of those young heifers giving their first calf and so increasing the number of milk cows and the quantity of milk.

The production of butter in Quebec decreased by 639,182 lbs. in 1917, as many butter factories were converted into cheese factories. This explains why, against the decrease in butter, we are enabled to show an increase of 5,498,456 lbs. in cheese. We do not suffer, in our province, from the competition of milk condensers, so that all our milk is either spent for consumption or converted into cheese and butter.

The wholesale price of butter per pound has shown in 1917 an increase of \$0.07, and that of cheese brought us an increase of \$0.025, compared with those of 1916. The dairy products manufactured in Quebec in 1917 reached a value of \$27,503,006, but in 1916 an increase of \$5,041,256 over that of 1916.

Hoping, as we do, to have, if the temperature of next season is favorable, a probably better production of cheese and butter than last year, we know that their value will entirely depend on the market.

Eastern Ontario Prospects Bright

G. G. Publow, Chief Dairy Instructor.

GENERALLY speaking the usual conditions from which we estimate production all point to increased efforts on the part of our dairymen to increase the output of dairy products in 1918.

Probably at no time in the history of dairying have conditions surrounding this industry been more hampered. The labor problem is more serious than ever before, in spite of preference granted farmers in exemption from military service. The market value of all food stuffs upon which cattle are fed is exceedingly high but fortunately available in most districts. The cost of raw materials used (Continued on page 10.)

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VOL. XXXVII

TORONTO, ONT., APRIL 11, 1918

No. 15

What Shall We Put in the Silo?

If Corn, it Must be Southern Corn, but there are Several Good Supplements and Substitutes—By F. E. Ellis, B.S.A.

ALL of the seed corn that will come into Canada this year will be of the Mammoth southern varieties," states Seed Commissioner Clark, with authority and emphasis. "All of the seed corn produced in south-western Ontario must stay there, it is the substance of one of the numerous Orders-in-Council emanating from Ottawa.

So what are the ensilage growers going to do about it? It is plainly a case of depend on southern seed or look up supplements and substitutes. Fortunately there are several good substitutes for corn as a silage crop and several of these may be used also to supplement the corn in filling the silo. The situation may be serious, but the problem is by no means unsolvable. In fact, our inability to get seed corn of the usual varieties and types this year may be the means of giving us a liberal education in the selection of silage crops.

Thousands of farmers will prefer to stick to corn at all costs, and these men are now asking questions about the southern varieties. Such questions are perhaps best answered by giving the experience of a few who have grown southern corn in other years, not from necessity but by preference. Among these are such well known farmers as F. R. Mallory, in Hastings County, G. B. Tracy, in Northumberland County, and D. C. Platt, in Halton. Recently when calling on Mr. Mallory, a representative of Farm and Dairy asked him about his experience with the southern variety known as Eureka Ensilage.

Advantages of Mammoth Corn.

"This southern corn produces a very heavy crop," said Mr. Mallory in telling why he preferred the mammoth type. "I can easily grow three times as much corn per acre as with the earlier maturing varieties. This is of particular advantage if a person is compelled to grow his corn on a small acreage. Occasionally it will ripen, but this is rare, and depends on a good long season. One of the difficulties that I have met with is the handling of the stubble the following year, especially if sowed in hills, but this can be partially overcome by sowing more thickly in drills, and I am not sure but that this is the best system in any case. If sowed thinly or in hills, it takes a very strong binder to cut it, but on the other hand too thick a seeding is not as strong in the stalk and more apt to blow down."

"Does your Eureka corn make as good ensilage as the smaller varieties?" we asked Mr. Mallory.

Mr. Mallory was somewhat undecided as to this. He said that possibly the ensilage was not quite as nutritious and yet he had no way of telling for sure. He was certain of this, that the extra amount of feed gotten off an acre more than made up for any lack in quality per ton. He looks upon corn as the chief succulent feed to be used as a filler rather than as a means of producing a large quantity of milk. His corn crop, he said, would yield at least 20 tons of ensilage per acre, and occasionally considerably more.

Messrs. Platt and Tracy also grow Eureka ensilage, but Mr. Tracy is the

only one of the three who grows it alone, both Mr. Mallory and Mr. Platt preferring to plant half and half with earlier maturing sorts. This year, however, when earlier sorts are not available, neither will hesitate to use the southern varieties alone. In any year Mr. Tracy's preference is for big corn and he grows tremendous crops at "Hamilton Farms." All three of these men, however, are in good corn districts. But there are thousands of silos in sections removed from the influence of the lakes, and in other provinces that are not so well adapted to corn growing, and the owners of these silos will balk at using big immature corn and these men will be glad to welcome a good substitute as a silage crop.

"O. P. V." Ensilage.

The most likely substitute for corn in Canada is "O. P. V." ensilage. This crop was first introduced into Canada by Prof. J. M. Treuman of the Nova Scotia Agricultural College. The climate of Nova Scotia is such that it was found that a good corn crop was secured on the college farm in only about one year out of four. Experiments conducted during the last four years indicate that a mixture of oats, peas and vetches is certain to produce a good crop every year and under proper cultural methods will produce large yields. Prof. Treuman writes Farm

and Dairy regarding his experience with "O. P. V." ensilage as follows:

"In 1914 land upon which clover hay had been grown the year before, was sowed to "O. P. V." mixture. The sod had been plowed the previous fall and the soil was in good condition. A light dressing of barnyard manure was applied in the spring and the soil well harrowed. The seed was sown with a grain drill at the rate of two and three-quarters bushels per acre. This was made up of one and a half bushels of oats, three-quarters bushel of peas and half a bushel of vetch. The seed was sown with a grain drill at the rate of two and three-quarters bushels per acre. This was made up of one and a half bushels of oats, three-quarters bushel of peas and half a bushel of vetch. This rate of seeding was increased in 1915 to two and a half of oats, three-quarters of peas and one-third of vetch, making a total of a little over three and a half bushels per acre.

"The 5.7 acres grown in 1914 produced 65 tons of green feed or at the rate of 11.4 tons per acre. The 1.6 acres cut gave 4.5 tons, or at the rate of 2.8 tons per acre. One acre of the piece was too wet and gave a very low yield which reduced the average for the whole piece to 11.4 tons per acre. In 1915 three acres were cut and one of these gave a yield of 2.9 tons, or a little less than 10 tons per acre. One acre of this field was too wet and gave a poor yield making the average low. On good land in proper condition we can easily raise 12 tons or more per acre of this crop."

"The analysis of the silage made from the 1914 crop, compared with corn silage raised the same year is given in the following table:—

| | O. P. V. Silage (No ears) | Corn Silage (% formed.) |
|---------------|---------------------------|-------------------------|
| Water | 71.85 | 80.00 |
| Ash | 1.89 | 1.42 |
| Protein | 2.31 | 2.37 |
| Carbohydrates | 23.42 | 15.32 |
| Fat | .83 | .88 |
| | 100.00 | 100.00 |

"It will be noted that the "O. P. V." contains 8.15 per cent. more dry matter than the corn. The nutrients in 100 lbs. of the "O. P. V." are 27.60, and in the corn 19.48 or an advantage of 7.92 lbs. in favor of the "O. P. V." These figures are obtained by multiplying the fat in each case by 2.25 and adding it to the protein and carbohydrates.

"The green material was cut just as the oats were about ready to enter the dough stage, before they began to turn yellow, and was put into the silo through a regular silage cutter. It cured well in the silo and came out in excellent condition for feeding. The cows and young stock ate it readily and there was no waste except what spoiled on top before regular feeding was begun.

"Although, as shown above, the "O. P. V." contains more feed per 100 lbs. than the corn, that is not its greatest claim for a place on the Nova Scotia farm. The best point in its favor is its certainty of producing a good yield in the great majority of seasons. It is suited to the climate of the Maritime Provinces and will grow well when many other crops would be almost a failure. Furthermore, the labor required to grow it is much less than for corn or for roots. Properly handled it promises to make a valuable addition to the feeds that can be grown



This Silo Must be Filled—but with What?

Seed corn may not be available and the varieties available may not be advisable. There is still a wide range of choices—oats, peas and vetches, the clovers or combinations of these. The various substitutes and supplements for corn as an ensilage crop are discussed in the article adjoining.

for the dairy cow in sections where corn is not a soil crop.

"We have secured the following yields per acre of O. P. V. for the past three years:—1914, 11.4 tons; 1915, 16 tons; 1916, 7.5 tons; 1917, 10 tons; which averaged 9.5 tons. Our corn crop averaged 8.75 tons. The dry matter in the O. P. V. averaged 25.11 per cent, the dry matter in the corn 17.54 per cent, giving an advantage of 1403 lbs. of dry matter per acre for the O. P. V."

"O. P. V. in New Ontario.

So successful was "O. P. V." ensilage in Nova Scotia that the crop has been experimented with at the Monthlet Experimental Station in New Ontario, which is located two or three miles from the growing. Mr. W. G. Nixon, the farm superintendent, writes of their experience as follows:—

"In 1916, the Monthlet Demonstration Farm carried on a small experiment in growing and ensiling 'O. P. V.' mixture. Results were very satisfactory, so much so that, during the past summer, a large stack, 16 x 30, was erected and filled to about two-thirds its capacity, which is 108 tons. The mixture consisted of O. A. C. No. 72 oats two and a half bushels, Prince Albert peas three-quarters of a bushel and common vetch half a bushel. It was sown at the rate of three and a half bushels per acre. Owing to the backward spring, seeding was done on June 6th, a month later than the three previous years. The crop was grown on clay loam well manured. The

yield produced was an average of 10 tons per acre. The silo was filled the first week in October. In addition to the 'O. P. V.' mixture, frozen spring wheat, oats and immature peas were utilized for ensilage. This latter does not produce quite as good a quality of ensilage, but it was good enough to justify utilizing it in that way. In New Ontario, where earl¹ fall frosts sometimes injure late sown grain, the silo provides a means of handling it to good advantage. Weather conditions during early October were such that it would not have been possible to make hay out of the material put in the silo, hence the advisability of having a place to store the green fodder to advantage.

"The cost of producing 'O. P. V.' for ensilage is no greater than growing mixed grains, and very often a farmer can produce a heavier yield per acre by seeding after the ground is well warmed up. Germination is better and growth more rapid than with the early sown grain. I think we must class 'O. P. V.' among the cheapest feeds produced on the farm. 'O. P. V.' does not require the cultivation that corn does, and, by using a grain binder for cutting it, handling is comparatively easy. The oats were in the firm dough stage at time of cutting and peas and vetches fairly well podded, although not as far advanced as the oats. Growth was very rank, the oats measuring five feet. A rank, heavy-leaved, strong-stemmed oat gives best results along with a long-tined pea, and the common vetch. The en-

silage has kept exceptionally well; it is sweet and palatable. The stock eat it most readily." Results so far obtained most certainly justify further and greater experiments in growing 'O. P. V.' for ensilage."

Experiments by Dr. Zavitz.

Dr. C. A. Zavitz, at Guelph has for seven years been conducting experiments to determine the best grain mixtures for the supplying of brood feed or the filling of silos. A study of the results of his experiments show that peas and oats gave the highest yield per acre of eleven different mixtures in each of five of the six years. Vetches were not included in any of these tests. In each case, the results in different proportions of oats and peas for fodder production were tested. It was found that the best satisfaction was obtained from the use of two bushels of oats and one bushel of peas per acre. The average annual yield from this mixture was 9.3 tons of green fodder. "It is important," says Prof. Zavitz, "to use varieties most suitable for growing in combination if the best results are to be obtained. It has been found that a vigorous growing oat with comparatively stiff straw such as the American banner, or the O. A. C. No. 72 and peas with long slender vines with the pods well distributed, such as the Golden Vetch, the Multiple and the Prussian Blue varieties give good satisfaction when grown in combination. The oat fodder is abundant in carbohy-

(Concluded on page 12.)

The Question: Shall I Buy a Milking Machine?

The Answer: It Will Return a Profit of 15% to 50% Annually and do Efficient and Satisfactory Work. A Conclusion Based on Five Years Experience with Several Makes.—By E. S. Archibald, B.A., B.S.A., Dominion Animal Husbandman

HOW many Canadian dairy farmers have carefully considered this question? The mechanical milker is, above all, designed as a labor saver and must be considered in the same light as such implements as the mower, the binder, the gas engine and similar labor-saving machines already universally adopted on the farm. Such being the case, let every man carefully consider the milking machine as applied to his own farm, for it may help to fill the place of the boy or man who has gone to the front, or it will allow the present help to pay more attention to work other than milking, thus increasing the farm output and profits. Before any farmer sells out his breeding of dairy cows on account of labor or feed shortage he should consider carefully these three things:

1. The boys in the trenches and the average citizen of England are hungering for milk, butter and cheese.
2. The enormous demand for breeding stock for several years after the war will make the re-establishment of herds a difficult and expensive proposition.
3. Labor-saving machinery, especially the milking machine, will show the maintenance of present production with less help and thus allow us to "do our bit" at home and do so at a fair margin of profit with even greater profits in view for future years. There is no doubt that help on the dairy farm is the greatest problem at present. On many such, an extra hand is necessary for the milking. The mechanical milker has an attraction for many men, boys, and often girls who do not like the hard routine hand milking. Again, there are, and will be many, partly disabled returned soldiers capable and willing to handle such machinery. The utilizing of such help is a sound proposition and a national necessity.

The Milking Machine a Good Investment.

"I cannot afford a milking machine," is the statement so often heard, my evidence is everywhere that it should be a good milker, properly handled, will return from 15 per cent. to 50 per cent. per annum net profit on the investment, which profit incidentally is far more than is realized on 95 per cent. of our cows.

The cost of installation naturally varies with the size of the herd, the arrangement of cows, the particular machine chosen, etc. An average of the five best makes of milkers found in Canada shows a cost of installation of about \$400, including power for an outfit large enough to milk three cows at once. This is sufficiently large for milking a herd of 25 to 30 cows. An extra unit costing an average of about \$100 will give ample equipment for a 35 cow herd. The larger the herd the less the cost of equipment per cow, but even with the small herd of 12 cows the cost is only about \$25 per cow.

The annual cost of operating a three single unit milker in a 24-cow herd is about \$150, this cost being based on present price for gasoline or other



The Milking Hour in a Large Dairy Near Ottawa.

"There seems no reason why any intelligent Canadian dairy farmer should not adopt a good type of milking machine, and not only find it an excellent investment, but a hired man always ready and willing to do this routine work on the farm so often considered 'drudgery.'" This is the conclusion to which Mr. Archibald has come after five years' experience with milking machines.

power, labor in caring for engine, labor in daily washing and oiling machine, repairs, 6 per cent. interest on investment and 10 per cent. depreciation. This is a charge of 13¢ per cow per day.

Hand milking at present value of labor costs over 7¢ per cow per day. On the other hand, one man, or even a woman, or boy can, with a three-unit machine, milk 24 cows in one hour at a maximum cost, including the 1% fixed charges, of 4½¢ per cow per day. This is a net profit of 35 per cent. on the investment, and is so proven on hundreds of farms in Canada. Can any Canadian dairyman afford to overlook this proposition?

How Many Units to Install?

Whether the single or double units are purchased is a matter of choice. One thing is certain, namely,—that only an active able-bodied man can handle double units to best advantage, and though the cost is greater, the single units should be chosen for women or boys. The number of units depends on the number of cows to milk and the number of hands milking. One good man is capable of handling three single units and weigh the milk and strip after the machine. This may be a fair basis for calculation.

Maintenance of the Machine.

As with any piece of machinery the milker must be kept in order. The simpler the machine and the more durably constructed the less will be the labor and cost of maintenance. Special emphasis should be laid on keeping the pulsators oiled, the pump and engine working smoothly and the rubbers of teat cups in good repair. Generally speaking, the milking machine is not more difficult to keep in

shape than the cream separator. The common argument against milking machines is the numerous units discarded. Hundreds of Canadian farmers have used all the best milkers for years and continue to get the best of satisfaction. Therefore, in common sense, careful treatment is all that is required to guarantee efficiency.

Efficiency in Milking.

If any good milking machine is kept in proper order it will give excellent results both as to cleanliness and milking and as to uniformity of milking. In fact, after five years' experience with various types of machines we have found that the mechanical milker properly handled is preferable to the average available hand milker. Any good machine is reliable and breakdowns are exceedingly rare. Cows do not decrease in their milk flow more rapidly on the mechanical milker than they do by average hand milking, especially if the practice of stripping after the milker is conscientiously followed. Generally speaking, old cows which have been accustomed to hand milking are sometimes liable to retain considerable milk, and the hand stripping is not only profitable in this case, but is a guarantee against udder trouble. However, heifers brought up on the milker will, as a rule, milk out quickly and fully as clean as with hand milking. It must be remembered, however, that the condition of the milker and efficiency of handling regulates largely the thoroughness of milking.

Effect on Cows.

So often we hear reports of the milker having injured cows' udders that only after many years careful experience are we sure that this is not careless handling of the milker or that the machine is not in the proper state of repair. No udder trouble of any description can be traced to the mechanical milker in the herd on the Central Experimental Farm where the cows have been milked by various types of milking machines during the past five years. If the pulsators are kept in good condition and the rubber inflations sound, no farmer should have udder trouble from the use of the milking machine.

Purity of Milk.

Finally, there has been a prejudice against milkers, owing to the fact that some farmers using the milking machine produce milk which has not the cleanliness or the keeping quality of that obtained by hand milking. After careful research in this subject it has been found that, providing milking machines are carefully rinsed and scalded and that the rubber parts are kept in the standard sterilizing solution commonly advocated by milking-machine companies, there should be no difficulty in producing milk which is decidedly cleaner than that of average hand milking. The milking machine, however, must have special care in washing and sterilizing, and giving even more importance than that of washing and sterilizing of the cream separator or other dairy utensils which have no rubber parts.

Studies in Dairy Cattle Types



Grand Champion Holstein Bull



Grand Champion Holstein Cow



Grand Champion Guernsey Bull



Grand Champion Guernsey Cow



Grand Champion Jersey Bull



Grand Champion Jersey Cow



Grand Champion Ayrshire Bull



Grand Champion Ayrshire Cow

Should We Make the Dairy Farm Self-Supporting?

Or is There Greater Profit in Buying a Large Part of the Concentrates?

MAXIMUM net profit is what the dairyman desires for his farm and how to secure that maximum profit is the biggest problem in successful farm management. Will the year's showing be most satisfactory where the stock is strictly limited in number to the ability of the farm to feed them, rough ration and of will the returns be increased by carrying the greatest number of stock for which roughage can be produced and buying practically all grain feeds and concentrates? Or is there a happy medium where monetary returns should reach their maximum? These questions outline the problem and on its correct solution depends the degree of financial success as in every dairy farm enterprise. Illustrations are not lacking of success under all systems of management, but perhaps one of the most outstanding examples of success with the buying system is found on a 50-acre dairy farm in one of the states to the south of us.

This is a "square fifty." Every foot of it is workable and has been described to us as "the richest land out-of-doors." The buildings are located right in the centre of the farm and their principal feature is the large number of stave silos. Only one crop is produced and that is corn for the silo. The cows are never allowed out of the stable from the day they are purchased until they are sold to the butcher. The roughage ration is largely corn silage. All of the hay is purchased and every pound of grain or meal. There is only one product and that is milk. The farm is paying all running expenses, a big salary to the manager and big dividends to his owner.

This is an extreme case of depending on the market rather than on the farm for feeding stuffs. The farm is favorably situated for supplying city milk and by buying feed in carload lots the manager gets an advantage in price. The high price of feeding stuffs would see to that. Even on more diversified farms many dairymen and themselves had pressed by the high prices of purchased feeding stuffs and are looking around for a system that will largely eliminate feed bills. The farmer with an abundance of pasture will find this easy. It is just a case of getting into summer dairying and then carrying the cows through the winter on roughage and roots with perhaps a little home-grown chop. The system, however, is open to the serious objection that it concentrates work in the busiest months of the year when all help is available to see in the fields. Likewise it looks like slack dairying to the man who likes to see his cows doing their best. Mr. Math. Michels, President of the Wisconsin Dairymen's Association, believes that he has a system that should particularly appeal to farmers in the present period of feed scarcity. Speaking at a farmers' short course recently he outlined his methods as follows:—

Growing All Feed is Practicable.

"To raise all of the feed needed for dairying is entirely practical where alfalfa can be grown. ALFALFA hay has a feeding value equal to good wheat bran and far too little of this hay is raised at the present time. Supply your protein in the form of legume hay. Alfalfa easily leads in this class and red clover, though quite inferior to alfalfa, would place as second on the legume list.

"After legume hay, corn silage is the most important. In this connection it should be remembered

that the variety of corn that gives the largest yield of shelled corn will give the best returns when fed as silage. Corn with big stalks and little grain does not make the silage wanted when feeding without concentrates. Be sure that the corn is fairly well matured before it goes into the silo.

"The combination of feeds then that produces milk the most economically is alfalfa hay, corn silage, and good pasture. In our herd we carry some 50 head of pure-bred Guernseys, counting calves and all. For the past six years this herd has been fed on practically nothing but alfalfa hay, corn silage, and pasture. The small amount of oil meal bought

to give you the fat records. All of these cows, except three, were born and raised in our barn under our system of feeding. The three were bought as calves.

"Three 5-year-old cows averaged 414 lbs. of fat, producing 54 lbs. more than the requirement to enter the Advanced Register.

"Three 3-year-old cows averaged 363 lbs. of fat, producing 56 lbs. above the requirement.

"Ten 2-year-old heifers averaged 321 lbs. of fat, producing 71 lbs. more than the requirement for entering the Advanced Register.

"Besides producing the above amount of fat each of the above animals carried a calf from 6½ to 8 months, and were milked only twice a day.

"These records, while nothing unusual about them, speak volumes for more economical, safer, and more practical feeding. I know that much better records can be produced by high feeding of concentrates, but the expense will be greatly increased.

"We feed alfalfa the year around; also silage when we have it. Wagon on pasture we feed alfalfa evenings and silage in the morning. When without silage we feed alfalfa twice each day at milking time. During the winter months we feed 25 lbs. silage in two feeds per day and not only all the alfalfa hay they will eat, but enough more so that we get practically all of our horse hay from the cows' manure. Horses prefer to eat the manure as much as the cows do the leaves."

The experience of Mr. Michels, that cows can be made to produce profitably with but little grain, is a Canadian parallel in the experience of Mr. Henry Glendinning of Ontario Co., Ont. In his case Mr. Glendinning has made very satisfactory records with nothing but alfalfa and corn silage. But which plan is most advisable in Canada, or what combination of both plans? We submitted the question to Mr. Letch, the farm management expert at Guelph, to Prof. H. H. Dean, who runs a dairy farm as a sideline in his college duties, and to Prof. J. H. Grisdale. Mr. Letch is preferred to withhold his decision as a farm survey in Oxford County is in contemplation, which, he anticipates, will afford conclusive information on this very point. Prof. Dean replied as follows:

Opinion of Prof. H. H. Dean.

"As a general proposition, I favor growing feed on the dairy farm, though at times it is necessary to purchase, especially concentrated feed. It is better to sell home-grown feeds and purchase those which may be lower in price. At the present time, oats are a case in point. Wheat bran, if it can be got, is cheaper than oats as a feed for cows. Sometimes a dairy farmer can sell seed corn at a price that will pay well to exchange for other feeds. Sometimes a man on a limited area of land is compelled to buy all his concentrates and also some roughage, and rent pasture, in other words, in some cases where it pays hay rather than grow. However, it is better, so far as possible, to 'grow all you feed and feed all you grow.' The advantages of growing all feed on the farm are:

"The feed is located where it is needed.

No waiting for slow freights and careless feed shippers.

"There are no freight, express, or commission charges to be paid, hence these are saved—a dollar

(Continued on page 14.)



Husky Youngsters Reared Largely on Skim Milk and Alfalfa Hay.

Many good breeders rear their calves with practically no grain, placing their dependence on skim milk and second crop alfalfa hay supplemented with corn ensilage and roots, and again grain bills are reduced to a minimum. Such practice makes the dairy farm practically self supporting.

would only amount to from \$50 to \$60 a year. "I believe it is entirely practical to get along without paying a single dollar for any feed. We can sow our alfalfa with a purse crop of barley or oats. This will give us a little grain for variety's sake and straw for bedding. For the years 1913, 1914, and 1915, we reseeded no alfalfa fields and had no grain at all. During this time we raised alsike and sweet clover for seed, using the chaff for bedding.

"We have had very satisfactory returns from our cows for the past six years that we have carried and raised all of our stock without grain or other concentrates. Our cows and heifers in milk have not averaged below \$100, and for the past year our average was \$125.00 per head for the cream and all. All skim milk was fed to our calves, pigs, and chickens.

Good Production—Little Grain.

"Since we have been having our cows semi-officially tested for a number of years, it may be of interest



By the installation of a system of tile under-drainage, Parnham Allison is making his farm wonderfully productive. In the field illustrated on the left where formerly corn couldn't be grown, large crops have been harvested since drainage has been provided for. The field on the right was of no value as a grain producer in its undrained state, but after the tile were put in excellent yields of grain have been secured. The crop illustrated is O. A. C. No. 72 corn which averaged 80 bushels per acre in this 14-acre field.

A Small Dairy Farm That Brings in Large Milk Cheques

How Parnham Allison has Eliminated the "Slacker" Fields from his 55 Acre Farm, with Something on the Crops that Make Possible a Yearly Average of 300 Gallons of Milk Per Acre—*By S. R. N. Hodgins, Associate Editor*

If you were to ask Parnham Allison, a well-known dairy farmer, of Dundas County, how he manages to produce from five to six cans of milk a day the year round from his 55-acre farm, he would probably be unable to give you any single "secret of success" which would represent the whole reason. As in all farming problems several factors enter, and each factor has considerable importance. Briefly Mr. Allison produces a roddy supply of milk because of his quality cows, because of his big crops, particularly his big corn crops in the growing of which he has achieved quite an enviable reputation throughout the district, and paradoxically as it may appear, because of his "large" 55-acre farm—large in that there are no slacker acres, and that on account of his careful preparation of the land, proper drainage and the high state of fertility in which it is kept, crop failures on this farm are practically unknown.

The method followed by Mr. Allison in bringing all his land into line was that of under-drainage. Of his farm 20 acres are now under-drained with tile and the results have been so satisfactory that Mr. Allison has now three-quarters of a carload of tile on hand to put in as soon as he can get the time. Naturally, the first drainage was done with those fields that were worst as far as crop growing was concerned, but since drainage there are now the best fields on the farm, giving large crops of corn and grain even in years when crops in the district are looked upon generally as failures. In a 14-acre field that refused to grow grain before draining, Mr. Allison secured, the second year after the tile had been put in, an average yield of 80 bushels to the acre of O. A. C. No. 72 oats, some parts of the field going as high as 100 bushels per acre. And from four acres of drained land, he has filled a 17 x 25 foot silo with flint corn. In fact Mr. Allison counts that the increase in his crops for two years will pay for his under-drainage and leave something over.

Practices Four-year Rotation.

As much of the success of the dairying on this farm is due to the cropping methods followed, we cannot do better than take a hasty glance at the farm practice of Mr. Allison. He has based this on a four-year rotation under which comes the whole farm outside of his alfalfa field, for every acre is now fallow and tilled. His plan is to have one-quarter of his farm each year in hoed crop—mostly corn of which he grows from 10 to 13 acres, one-quarter in oats, O. A. C. No. 72, or a mixture of early oats and barley, "seeding down" with all grain, a quarter in clover hay and the quarter in pasture which was in hay the year before. The pasture land, broken up in the fall, while the cows are gathering the aftermath of the hay fields, receives the winter's manure and is ready to produce good corn crop next year. The farm is clay loam and has been found to produce better crops

after fall plowing, both because the land has been pulverized by the frost and because it holds more moisture for the next season's crop.

The most important crop grown on the farm is the corn crop. On account of the small amount of pasture that is available for the cows each year, Mr. Allison grows enough corn to feed twice a day for 11 months in the year. He has two silos, one 12 x 25, which is filled for summer feeding and one 17 x 25 for winter feeding. Recently his method has been to feed the cows in the fall from the small silo till he gets down to the solid manure, this then keeps well until feeding time comes next season. The varieties grown by Mr. Allison are Wisconsin No. 7, Longfellow and Bailey. He is rather partial to flint corn, and while his field may not appear to be yielding so much as if dent corns were grown, on account of the "shorter" crop of corn, he usually finds that the tonnage is fully as large with the flint corn on account of its habit of tillering. It has been his experience that it takes a good early maturing flint silo if it is not well cared, so an early maturing corn is always sought. Mr. Allison is an enthusiastic believer in the thorough cultivation of the corn field. He checks rows his corn and cultivates both ways as long as he can get through the field. In this way he makes his hoed crop a real cleaning crop.

Another hoed crop which is looked upon with great favor upon this farm is the Jumbo sugar beet, of which one to two acres is grown. The root land is plowed in the fall and all manure going on is held until it has heated before being spread. In this way the labor required in keeping the roots free from weeds is greatly cut down. This is the only case in which the manure does not go directly from the stable to the field as it is made. Mr. Allison has found roots very valuable in the dairy ration. Last

fall while feeding roots liberally, he cut down his meal ration more than half, and his cows milked better than they did at any other time during that year.

The section of the farm on which grain must be grown in order to "seed down" the field in its turn in the rotation, is of sufficient size to provide quite a respectable quantity of oats or oats and barley for use as the foundation of the grain ration. While the acreage is not large the crops are, because of the high fertility of the land, resulting from years of legume growing and of buying in concentrate feeds. Mr. Allison has his own thresher and as he threshes he cuts the straw and blows it into the mow for use as bedding. He has followed this practice of cutting the straw for 10 or 12 years and finds it soaks up the liquid better and that the manure when cut straw is used works into the root ground to better advantage.

Alfalfa Will Save Meat.

Besides the large crops of clover hay which he grows, Mr. Allison is getting a start in alfalfa growing. Three years ago he sowed an acre and a half of Grimm and secured a fine stand, but an icy winter followed and killed this out. The next year he put in six acres of alfalfa, using nitro-culture and a nurse crop of oats on land that had been under-drained. A good stand was secured and last summer he cut from this six-acre field 16, big loads of hay at the first cutting and six loads at the second cutting. A year ago last fall Mr. Allison top-dressed half of the field with four loads of manure and 30 lbs. basic slag per acre. The crop on the part that had been top-dressed was six inches higher than the other during the following season. He found that he gathered at least a third more loads per acre of this part of the field, so the whole field was treated in a similar manner last fall.

Mr. Allison's experience with alfalfa as a milk producer leads him to think highly of it. While alfalfa and roots he can make milk even without corn. At present he has to buy a lot of meal, but is hoping that by raising alfalfa and roots and feeding these with well matured corn silage, he will be able to largely cut down on his meal bill. In connection with the growing of concentrates, Mr. Allison says: "If I had 10 acres I would try to raise enough extra crop such as wheat or beans to pay for any concentrates I might require."

The weakest point about a small dairy farm is the lack of pasture and to overcome this Mr. Allison a year ago this spring sowed six acres of sweet clover to act as pasture. He secured a very good stand and found that while his cattle were paying on this last fall he got eminently satisfactory milk returns. Contrary to his expectations, the cattle appeared

(Continued on page 28.)

The Attractive Home of Mr. and Mrs. Parnham Allison.

The visitor to Parnham Allison's farm gets a good impression on his arrival, by the well-kept lawn, and nicely painted buildings. The house has hot and cold water on tap and many other conveniences usually found only in city homes, but it has far more—it has its location in "God's great out-of-doors."

Farm Management

Queries from New Ontario

WHILE a temperature of 65 degrees below zero injure seed grain in the bin? 2. Does a field of green clover plowed under enrich a field better than where the same crop is fed to cattle, the manure spread on the same field and then plowed? 3. Frosted or shrunken wheat fit for sowing and will it produce a crop equal to developed wheat? 4. What are the manurial elements and their value that are removed off the farm in the sale of a ton of clover or a ton of timothy? 5. Which are the most exhausting to the growing and sale of grain?—J. M. Algoma Dist., Ont.

1. A temperature of 65 degrees below zero will not injure seed grain in a bin if the grain is of normal maturity and dryness. 2. A crop of clover plowed under will necessarily enrich the soil more than the manure resulting from the feeding of the same crop, unless extra concentrates are fed. 3. Frosted or shrunken wheat will not produce nearly as heavy a crop as will normally developed seed wheat. 4. A ton of timothy contains

18.8 lbs. of nitrogen, 6.6 lbs. of phosphoric acid and 28.4 lbs. of potash, and the approximate value of these elements is \$7. A ton of clover contains 29.4 lbs. of nitrogen, 11 lbs. of phosphoric acid and 37.4 lbs. of potash, with an approximate value of \$13. This value is high now as compared with normal times, due to the almost prohibitive prices of potash. 5. The sale of hay, especially clover, off the land, will not exhaust the fertility of the soil as much as the sale of cereal grains.—A. Leitch, O.A.C., Quelph.

Winter Damage on Wheat

VERY shortly our wheat farmers will be able to tell to what extent the sleet storms of the passing winter have damaged the wheat crop. Probably there will be some damage, and such as there is will be irremediable for wren ice injuries at all it smother the crop completely.

Frost now until the frost is out of the ground winter wheat faces a new danger—that caused by alternate freezing and thawing of the surface

soil. Winter injury of this kind seldom kills a field in total, but rather weakens individual plants here and there, with damage to the crop as a

whole. Given right conditions new roots and new tops will start, and the final result may be almost no injury. From now on the problem on the



From Bulletin 112, Delaware Experiment Station.

How Fertilizer Gives the Wheat a Fresh Start.

An application of Fertilizer will increase plant tillering. Pot 5—No Fertilizer. Pot 11—Acid Phosphate. Pot 9—Ammoniated Superphosphate.



Looking Over the New Fence

A farmer is justified in feeling proud when he shows his neighbors his new FROST fence. It stands up there as "straight as a ramrod" and as spic and span as a soldier on inspection parade.

Its perfectly put on locks, and precisely straight and even spaced stays—its splendid outward appearance—are indications of its staunchness and goodness.

Years of service on many thousands of Canadian farms, with tremendously severe tests imposed on it, attest to its enduring stamina, and confirm all we have said about FROST fence as a lasting investment.

The FROST Company have always had one thought in mind—to build FROST fence so well that buyers of it will come back again every time they require new fence.

Our greatest asset is the great and ever increasing number of FROST fence customers—

an army of boosters for FROST QUALITY.

If you were to visit our mills and see how we make and galvanize the wire—how we put that peculiar elastic wave into Frost laterals—how carefully the locks are applied without kinking or weakening the laterals—you would have a pretty good idea why FROST fence is FIRST in quality, in service and in value. The next best thing is to see one stretched up on a field or to examine one at a FROST dealer's. If you don't know a nearby dealer, write us.

A style for every purpose.

Frost Fence First

Frost Steel and Wire Company, Limited

Hamilton, Canada

wheat farm is to make these conditions right, so that the injury will be neutralized.

Rolling the wheat field helps—it presses the moist soil close to the young plant and prevents it from drying out. Light harrowing also helps—if done with judgment and not too extensively. More important than either of these, however, is the supply of available plant food—for available plant food encourages the production of more tiller and more roots, thickens up the stand and increases enormously the number of seed-bearing stalks.

Perhaps no other is this better shown than in work done by Professor Grantham (Delaware Experiment Station Bulletin No. 117), in which it is shown that ammonia and phosphoric acid are the two elements most effective in producing tillers. The drawing taken from Professor Grantham's bulletin illustrates how fertilizers act in thickening up the



How Frost Injures Wheat.

stand and repairing the ravages caused by the winter. Furthermore, the bulletin shows that the amount of tillering is very nearly in proportion to the amount of fertilizer applied—and the yield likewise in direct proportion to the tillering.

Increase Cost of Production

AN indication of how rapidly the cost of producing agricultural products is increasing is furnished in a statement that has been used recently by Mr. J. B. Wilson, a well-known dairyman of Leeds county. This statement shows the cost of farm machinery in 1914 and of the same machinery in 1918. The figures are as follows:

| Farm Machinery. | 1914. | 1918. |
|----------------------|----------|----------|
| Mamre spreader | \$133.00 | \$187.00 |
| 500-lb. separator | 78.00 | 97.00 |
| 12-plate disc harrow | 29.00 | 37.00 |
| 4-section harrow | 18.00 | 29.00 |
| 13-tooth cultivator | 40.00 | 71.00 |
| Corn cultivator | 60.00 | 102.00 |
| 12-disc drill | 90.00 | 123.00 |
| 6-ft. mower | 58.00 | 90.00 |
| 10-ft. rake | 33.00 | 54.00 |
| S.D. rake | 70.00 | 117.00 |
| Hay loader | 70.00 | 107.00 |
| Hay seeder | 50.00 | 77.00 |
| 6-ft. binder | 145.00 | 212.00 |
| Blissard cutter | 145.00 | 235.00 |
| Wagon, complete | 80.00 | 120.00 |
| Plow | 14.00 | 20.00 |
| Roller | 45.00 | 75.00 |

\$1179.00 \$1780.00

The percentage of increase in the cost of production is 50.98 per cent. Has the price of farm products to the farmer increased in proportion?

The Commission of Conservation working in cooperation with the district representative in Dundas Co., Ont., have been carrying on illustration farm work with a view to making that county a model farming district. A pamphlet entitled "Handbook for Farmers," has been published for circulation in the county and a few hundred copies are available for general distribution to bona fide farmers on application to the Commission.

CHEVROLET

Crowd more into the busy day

THE Chevrolet 490 is an investment, not an expense or luxury. Doctors, business men, farmers, salesmen and ladies—all should use the Chevrolet Four-Ninety and crowd more energy, activity and business into the busy day.

The Four-Ninety stands unchallenged in its price class. The electric starting and lighting equipment is most efficient. The car is powerful, roomy, comfortable and economical. The time gained by operating a Chevrolet more than pays for the cost. There also are two larger Chevrolet models on display at the dealers.

CHEVROLET MOTOR CO.

of CANADA, LIMITED

OSHAWA, ONTARIO

Western Parts and Distributing Branch: REGINA



MODEL 490-A \$825, f.o.b. Oshawa

There is a Chevrolet Show Room in your vicinity. Call and see the latest Chevrolet Models

IF YOU DON'T FIND IT, WRITE US

Occasionally readers of Farm and Dairy wish to secure the address of manufacturers of farm or household equipment, but are not able to locate it in our pages. At any time our Advertising Dept. will be pleased to give you any information of this nature. Write us freely.

ADVERTISING DEPT.
FARM & DAIRY, PETERBORO, ONT.

THE business survivors are the good advertisers. But good advertising is not chiefly the putting forth of strong advertisements. Advertising is worse than useless if the goods are not as strong as the advertising. Survival is founded on bedrock quality. Good advertising must rest on that. Test the advertising in Farm and Dairy that serves (standard, in actual purchase. We guarantee the integrity of every advertisement in this issue, and believe they will stand the test. Try them and see. When writing, say "I saw your advertisement in Farm and Dairy."

PEERLESS LONG SPAN GATES

THE gate pictured below is a companion to the Peerless Perfection farm fencing, strong, durable, with heavy tubular brace, which stiffens it like a steel bridge. It swings true and rigid as an oak door hung by a master mechanic. Lateral and upright wires securely clasped at all intersections and stretched upon a strong rigid frame of tubular steel electrically welded into one solid piece.

FOR LOOKS, WEAR AND SERVICE

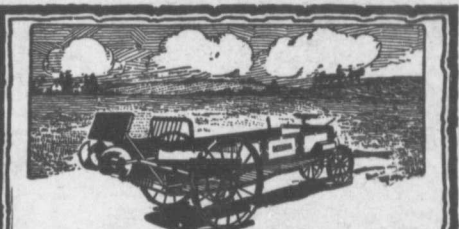
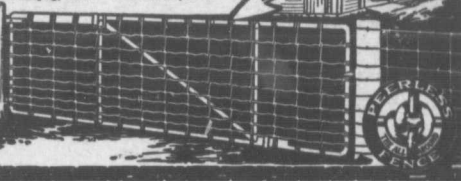
In appearance a Peerless Gate says: "I am guardian here." For durability it is of heavy open heart steel wire, galvanized and can't rust at any point. For service it is put together to last a lifetime and is the cheapest, best gate made. You will be interested in our Catalog.

Write Today for Literature

describing all our many styles of Gates, all kinds of Farm and Poultry Fencing, etc. Dealers nearly everywhere. It will pay you well to get acquainted with Peerless Perfection standard of construction. Write today.

The Banwell-Hoxie Wire Fence Company, Ltd.

Winnipeg, Man. Hamilton, Ont.



The Deering Manure Spreader Light Draft — Wide Spread

A LOAD of stable manure is no light weight. Matted with bedding and litter, it is no easy job to tear it into small pieces for the kind of spreading that good farmers demand. Yet two horses can handle easily the 49-bushel load of a Deering No. 8 in all ordinary going, and will get the load off in a good even coat in three to four minutes. With its light weight, roller bearings, and beater parts kept in line by a strong steel frame, the Deering is a very light draft machine.

The work of tearing up the manure is divided between two beaters, one of which is a spiral that makes this Deering spreader a wonderfully efficient fertilizing machine. It spreads beyond the wheel tracks. It covers the ground evenly clear across the width of the spread.

Three sizes of Deering spreaders give each farmer a machine suitable for his farm—No. 8, 49 bushels; No. 5, 55 bushels; No. 6, 63 bushels capacity. See the local dealer or write the nearest branch house for illustrated catalogue showing all the good features of this Deering light draft, wide-spread manure spreader.

International Harvester Company of Canada, Limited

BRANCH HOUSES

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

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

The Outlook for Canadian Dairying

(Continued from page 2.)

In the manufacture of cheese and butter has materially advanced since last year, and the cost of hauling milk and cream has taken a big jump. Most cheese factories in the district are advancing the price of manufacturing at least one-quarter to one-half cent per pound. Fuel, too, is more costly than ever and difficult to secure, and a great many have endeavored to secure a supply of wood during the winter months to lessen the scarcity of coal. From reports received there will be an increase in the number of cows, possibly 10 per cent. or more.

The question uppermost in the minds of the dairymen of Eastern Ontario at present is the still undecided relative variation or prices to be paid for the different products. Certainly the cost of producing these products will be materially greater than in 1917, and the market values should be advanced in proportion. This will do more to increase production than anything which I know.

In Western Ontario

Frank Harna, Chief Dairy Inspector, OR various reasons a number of the annual factory meetings are being held at a later date than usual. The attendance in some instances at meetings held during January was affected by unfavorable weather, but on the whole the interest of the patrons is well maintained, and although the cost of production is increasing, most milk producers are optimistic regarding the future of the dairy industry and are looking forward to receiving sufficiently high prices to cover the increased outlay necessary to the season's production.

Owing to a further increase in the cost of dairy supplies it was necessary in many cases for cheese factory proprietors to again increase slightly the prices for manufacturing cheese. The patrons, realizing the situation, readily agreed to the increase. The increasing scarcity and high cost of tin, boiler plate, etc., will be a big factor in keeping up the usual standard of factory equipment. Conservation where these points are concerned will be necessary. The returning of as many dairy utensils as possible will no doubt have to be practised whenever possible. Several cheese factories that turned over the winter milk supply to the condensers instead of making cheese will again resume cheese operations in April, and it is to be hoped that a sufficient number of competent men to properly man the factories will be available, but at present a scarcity of factory labor seems imminent.

Milk producers are, in many instances, realizing more fully the importance of cow testing and frequent in this connection are quite frequent. Several more cheese factories will likely pay for milk by "test" this coming season, as milk producers are becoming more convinced of the justice of this method of distributing the proceeds.

Considerable interest is shown in making a distinction in cream and butter prices in accordance with quality through cream and butter grading.

Farm labor is scarce and will be a big factor in maintaining production of cheese and butter during 1918.

Dairying in Manitoba

L. A. Gibson, Dairy Commissioner, DAIRYING in Manitoba is making very satisfactory progress and is fast developing into one of the most important branches of our agricultural industry. The rich soil and favorable climatic conditions, which made Manitoba famous as a grower of high-class grain, are now producing large quantities of dairy products, and the fringe of her possibilities in this line is only touched. As the creamery side of our dairy business is the largest and most important, con-

sequently it is the best barometer to gauge the expansion which is taking place. I might mention that in the year 1912 we imported from Eastern Canada 55 carloads of creamery butter to meet our market requirements; last year we exported close to 100 carloads after taking care of our own market requirements, the majority of this butter going to different parts of Eastern Canada. The production of dairy products for 1917 showed a substantial increase of about 12 per cent over the previous year, which shows the trend there is towards intensified farming in the Province of Manitoba.

The prospects for increased production of dairy products during the coming season never looked so encouraging at this time of the year; if we have a favorable season we should show a considerable increase over any previous year.

The condition of the cows throughout the Province is very good, notwithstanding the high price of grain and all other necessary feeds. Fortunately our Province produces large crops of oats, peas and barley, and these grains, particularly the oats, are being used with very satisfactory re-

COOPERATIVE OWNERSHIP OF FARM MACHINERY AND IMPLEMENTS.

Have You Had Any Experience?

IT takes a lot of money to buy all of the equipment that is necessary on a farm nowadays. With part of the equipment, cooperative ownership may afford a means of reducing the capital investment per farm. Have you had any experience with such cooperative ownership? For the best letter telling of successful cooperative ownership, Farm and Dairy will pay \$3 and contributors rates for all other letters published. We have in mind such equipment as farm tractors, corn harvesting and silo filling machinery, threshing equipment and so forth. There is just one condition—all letters must be received in this office by the 15th of the month. Let the rest of Our Folks have the benefit of your experience in cooperative ownership.

sults as the main concentrated ration for our milk cows. Western rye grass, bronze grass, timothy and alsike combined with a good hay are being used advantageously by our dairymen. Green oats and peas make excellent fodder for winter use, cut in the mill or done up in hay, either cured as green feed or cut into the silo, produces silage of excellent quality. All these feeds are being largely grown by our dairymen, which accounts for our large winter production of milk, and the cows coming through the winter in such good condition.

During the five winter months members of our Dairy Branch addressed 65 meetings on topics relating to dairying in different parts of the Province; the subjects discussed were Feeds and Feeding, Breeding Dairy Cattle, Feeding of Calves, Care of Milk and Cream, Cow Testing, Grading of Cream, Separation and Cause of Variation in Cream. Demonstrations were given in cream testing, as well as soft cheese making. The attendance at all these meetings was very satisfactory, and the enthusiasm shown was very marked. Applications are already in for meetings of a similar character to be held next winter.

The day is past in Manitoba when

(Continued on page 26.)

The "Ideal" Look



"IDEAL" FENCE PRICES

FREIGHT PAID TO YOUR STATION

Below we give the freight-paid prices to any station (except Electric) in Old Ontario on orders of \$15.00 or over. Prices for New Ontario quoted on request.

QUEBEC AND MARITIME PROVINCES We have opened a warehouse and office in Montreal to handle Eastern shipments and correspondence. Ask our Branch, 14 Place Royale, Montreal, Quebec, for "Ideal" prices, freight paid to any station in Canada, east of Montreal.

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

HEAVY "IDEAL" FENCING

MADE THROUGHOUT OF FULL GAUGE No. 9 EVENLY GALVANIZED HARD STEEL WIRE, CARRIED IN 20, 30 AND 40 ROD ROLLS.

| | | | | | |
|---|-----|---|-----|---|-----|
| No. 5380 6-line wires, 38 inches apart, uprights 22 ins. apart, spacing 9, 10, 10. Per rod..... | 37c | No. 847 8-line wires, 48 inches high, uprights 16 1/2 inches apart, spacing 4, 5, 6, 7, 8, 9. Per rod..... | 63c | No. 1054 10-line wires, 54 inches high, uprights 16 1/2 ins. apart, spacing 3 1/2, 3 1/2, 4, 5, 6, 7, 8, 9. Per rod..... | 80c |
| No. 6390 8-line wires, 30 inches high uprights 22 inches apart, spacing 7, 7, 8, 9, 9. Per rod..... | 43c | No. 8470 8-line wires, 48 inches high uprights 22 inches apart, spacing 4, 5, 6, 7, 8, 9. Per rod..... | 58c | No. 10540 10-line wires, 54 ins. high, uprights 22 ins. apart, spacing 3 1/2, 3 1/2, 4, 5, 6, 7, 8, 9. Per rod..... | 73c |
| No. 7400 7-line wires, 40 inches high, uprights 22 inches apart, spacing, 5, 6, 7, 7 1/2, 8 1/2. Per rod..... | 50c | No. 951 9-line wires, 51 ins. high, uprights 16 1/2 ins. apart, spacing 4, 4, 5, 6, 7, 8, 9. Per rod..... | 70c | No. 1157 11-line wires, 57 inches high, uprights 16 1/2 ins. apart, spacing 3, 3 1/2, 3 1/2, 4, 5, 6, 7, 8, 9. Per rod..... | 85c |
| No. 7480 7-line wires, 48 inches apart, spacing 5, 5 1/2, 7 1/2, 9, 10, 10. Per rod..... | 51c | No. 9510 9-line wires, 51 inches high, uprights 22 inches apart, spacing 4, 4, 5, 6, 7, 8, 8, 9. Per rod..... | 64c | No. 11570 11-line wires, 57 ins. high, uprights 22 ins. apart, spacing 3, 3, 3 1/2, 3 1/2, 4, 5, 6, 7, 8, 9. Per rod..... | 77c |
| No. 841 8-line wires, 41 inches high, uprights 16 1/2 ins. apart, spacing 4, 4, 5, 6, 7, 7, 8. Per rod..... | 62c | No. 1048 10-line wires, 48 inches high, uprights 16 1/2 ins. apart, spacing 3, 3, 3 1/2, 4, 5, 6, 7, 8, 8 1/2. Per rod..... | 75c | No. 831 8-line wires, 31 ins. high, uprights 16 1/2 ins. apart, spacing 3, 3, 4, 5, 6, 7. Per rod..... | 60c |
| No. 8410 8-line wires, 41 inches high, uprights 22 inches apart, spacing 4, 4, 5, 6, 7, 7, 8. Per rod..... | 57c | No. 10480 10-line wires, 48 ins. high, uprights 22 ins. apart, spacing 3, 3, 3 1/2, 4, 5, 6, 7, 8, 8 1/2. Per rod..... | 70c | No. 939 9-line wires, 39 inches high, uprights 16 1/2 inches apart, spacing 3, 3, 3, 4, 5, 6, 7, 8. Per rod..... | 67c |

MEDIUM HEAVY "IDEAL" FENCING

TOP AND BOTTOM WIRES No. 9; OTHER WIRES No. 12; CARRIED IN 20, 30 AND 40 ROD ROLLS.

| | | | | | |
|---|-----|--|-----|--|-----|
| No. 640 6-line wires, 40 ins. high, uprights 16 1/2 ins. apart, spacing 7, 7, 8, 9, 9. Per rod..... | 33c | No. 726 7-line wires, 26 ins. high, uprights 13 inches apart, spacing 3, 3 1/2, 4, 4 1/2, 5, 6. Per rod..... | 35c | No. 930 9-line wires, 30 ins. high, uprights 13 ins. apart, spacing 3, 3, 3, 3, 4, 5, 6. Per rod..... | 43c |
| No. 6400 6-line wires, 40 ins. high, uprights 22 inches apart, spacing 7, 7, 8, 9, 9. Per rod..... | 30c | No. 7261 7-line wires, 26 inches high, uprights 8 inches apart, spacing 3, 3 1/2, 4, 4 1/2, 5, 6. Per rod..... | 41c | No. 9301 9-line wires, 30 inches apart, uprights 8 inches apart, spacing 3, 3, 3, 3, 4, 5, 6. Per rod..... | 50c |
| No. 950 9-line wires, 50 ins. high, uprights 15 inches apart, spacing 4, 4, 5, 6, 7, 8, 9. Per rod..... | 48c | No. 1150 11-line wires, 50 inches high, uprights 13 inches apart, spacing 3, 3, 3, 4, 4, 5, 6, 7, 7, 8. Per rod..... | 55c | No. 1448 14-line wires, 48 inches high, uprights 13 ins. apart, spacing 2 1/2, 2 1/2, 2 1/2, 2 1/2, 3, 3, 3 1/2, 4, 5, 5 1/2, 5 1/2, 6. Per rod..... | 64c |

"IDEAL" POULTRY FENCING

TOP AND BOTTOM WIRES ARE MADE OF No. 9. ALL OTHER WIRES No. 13. CARRIED IN TWO STYLES ONLY. MADE IN 10 AND 20 ROD ROLLS.

| | | | |
|---|-----|---|-----|
| No. 1848 18-line wires, 48 inches high, uprights 8 1/2 inches apart, spacing 1 1/2, 1 1/2, 1 1/2, 1 1/2, 1 1/2, 1 1/2, 1 1/2, 1 1/2, 2 1/2, 2 1/2, 2 1/2, 3, 3, 3 1/2, 3 1/2, 4, 4 1/2, 5. Per rod..... | 85c | No. 2060 20-line wires, 60 inches high, uprights 8 1/2 inches apart, spacing 1 1/2, 1 1/2, 1 1/2, 1 1/2, 1 1/2, 1 1/2, 2 1/2, 2 1/2, 2 1/2, 2 1/2, 3, 3, 3 1/2, 3 1/2, 4, 4 1/2, 5, 6. Per rod..... | 90c |
|---|-----|---|-----|

Improved "Ideal" Stock Gates—Open Mesh

Made in the following sizes only:

| | |
|---|--------|
| 12 feet long, 61 inches high, each..... | \$6.00 |
| 12 feet long, 61 inches high, each..... | 6.25 |
| 14 feet long, 61 inches high, each..... | 6.50 |

Improved "Ideal" Farm Gates—Close Mesh

| | |
|--|--------|
| 3 feet long, 48 inches high, each..... | \$3.00 |
| 3 1/2 feet long, 48 inches high, each..... | 3.25 |
| 4 feet long, 48 inches high, each..... | 3.50 |
| 10 feet long, 48 inches high, each..... | 6.25 |
| 12 feet long, 48 inches high, each..... | 7.00 |
| 13 feet long, 48 inches high, each..... | 7.25 |
| 14 feet long, 48 inches high, each..... | 7.50 |
| 16 feet long, 48 inches high, each..... | 8.00 |

Supplies for "Ideal" Fence

| | |
|---|---------|
| Ideal Fence Stretcher, each..... | \$10.00 |
| Hand Stretcher for Single Wire, each..... | 1.75 |
| Universal Post-Hole Digger, each..... | 2.00 |
| Ideal Steel Fence Posts, 1 1/2 in. x 1 1/2 in. angle by 7 1/2 ft. long, each..... | .50 |

Brace Wire, Staples and Barb Wire

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| Galvanized Staples in 25-lb. Boxes..... | \$1.50 |
| Galvanized Staples in 100-lb. Boxes..... | 7.00 |
| Galvanized Fence Hooks, per 100 lbs..... | 0.00 |
| No. 12 Brace Wire, per 100 lbs..... | 6.50 |
| No. 9 Brace Wire, per 25 lbs..... | 1.50 |
| No. 9 Brace Wire, per 100 lbs..... | 6.00 |
| No. 9 Coiled Spring Wire, per 100 lbs..... | 6.10 |
| 4 pt. 6" Galv. Cabled Barbed Wire, per 100 lbs. (about 95 rods)..... | 6.75 |
| 4 pt. 6" Galv. Cabled Barbed Wire, per 80 rod spool..... | 5.50 |
| 2 pt. 5" Galv. Cabled Barbed Wire, per 80 rod spool..... | 5.25 |
| "Ideal" Single Strand Barbed Wire, per 80 rod spool..... | 3.75 |

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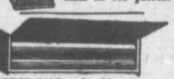
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172 TORONTO ST.
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What Shall We Put in the Silo?

(Continued from page 4.)

drates and the peas are rich in albuminoids. The two when grown in combination form a very well balanced ration and much more suitable for feeding than either oats or peas when grown separately.

Clover Ensilage.

Farmers with abundance of clover in prospect for next season need not worry about the filling of their silos. Red clover, sweet clover and alfalfa have all been successfully ensiled in Canada, clover being particularly popular as an ensilage crop in British Columbia. One Ontario dairy farmer of our acquaintance, Mr. P. J. Griffin of Halton county, vice-president of the Ontario Milk and Cream Producers' Association, filled one of his silos with red clover a few years ago and tells us that it was the best green clover ever fed on the farm. So enthusiastic was he over clover silage that he told us that he could he grow alfalfa successfully he would put it in the silo and never grow another stalk of corn on his farm.

Theoretically there is an objection to the use of clovers alone, in that it is not enough starch in their composition to produce the acids which give the desirable ensilage flavor, or to balance the high protein content of the clover. A number of farmers in Langhale Co., Wis., are going around this difficulty by ensiling a clover and timothy mixture. They call it "grass" silage and with it have less worry because of late spring and early frosts, less work in the spring and the filling is done at a season that would otherwise be devoted to the cultivating of the corn. Mr. Ed. Nordman, in a recent issue of Hoard's Dairyman, claims larger yields from this grass silage than from corn and states that by following this plan he has been able to winter 100 lbs. of cattle with the product of 60 acres of cultivated land. Concerning the quality of grass silage compared with silage made from corn, he writes:

"On our farm we have had a silo for over 12 years. A majority of these years we have succeeded in growing corn which for silage purposes was equal to the best corn grown anywhere. I do not hesitate to say that our grass silage this winter is giving as good results as the best corn silage we have ever had. We are feeding an average of 40 pounds per day of this silage to our cows and not a particle of it is ever left in the feed boxes. The cows eat this silage in preference to second crop hay containing a good proportion of alfalfa. If we had the silage to give them I am convinced that many of our cows would consume 50 pounds each per day with mighty good results."

Method of filling the Grass.

Mr. Nordman's methods of making grass silage are described by him as follows:

"Our plan is to cut the grass very thin in the morning while it is still wet with dew. Unless the day is hot and windy there will be moisture enough, but there should always be water enough on the cut material as it goes into the silo will last wet to the hand. The grass should be evenly distributed in the silo and the top five or six feet well trampled. If these little precautions are looked after there is no reason why grass in a silo will not keep just as good as corn. We have a ten-horse power silo filling outfit owned cooperatively, which to keep going keeps eight men and three teams busy, besides three men to handle the teams. One of these men is in the silo, one helps load in the field, another helps unload, one feeds the cows, one man keeps the knives and one silo stays sharp with an emery stone attached to the engine. He also looks after the ma-

chinery and sees that this is kept in order.

"In the morning all hands turn in and bunch the grass while it is still wet. This is done by forking two mower rows in one and then putting it in piles of convenient size. A horse rake would go quicker, but on our farm it would pick up too many small stones." It takes about one hour in the morning to bunch grass enough to last one day. In this manner we are able to ensile from six to eight tons of grass per hour."

Supplementing the Corn.

It is possible, where the value of silage from Mammoth corn might be open to question, to supplement the corn with other crops when filling the silo. Crops that might be used would be second-crop clover, third-crop alfalfa and a late planted "O. P. V." mixture. Mr. R. M. Holtby of Port Perry, Ont., is favorable to second-crop clover. "I have put second-crop clover into the silo several times along with the silo," he told me recently when we happened to meet on the train coming up from Toronto. "The clover bulks, but the corn ensilage weighs it down. We cut the clover the same time as the corn as it is still green up in September. We run it up with a side delivery rake and then start to fill the silo immediately. We keep one team drawing in clover and three or four drawing in corn. We then get one load of clover to four or five of corn. We do not run the corn and clover through the blower together, but just take the loads as they come up. Even then they seem to mix very well and make a better bulk than straight silage. In the past we have ensiled clover when we were short of corn. I do not see that Mammoth Southern sweet will be a great disadvantage as we have not been getting cars anyway."

Harding Bros. of Weirford, N.B., whose Holstein herd is well known at the Eastern Fair, proposes to use the "O. P. V." mixture in the same way as Mr. Holtby uses his second-crop clover. The following is an extract from a letter written by Harding Bros. to Farm and Dairy:

"I would like to know how dairymen are going to make out with the seed corn problem. I tried to get Wisconsin No. 7, but find we can get nothing but that big soft southern corn, and in looking around I believe I ran across a good thing. It is this: Put in half the usual acreage of this big southern corn and the other half in the second-crop clover. Seed the mixture so late that when your corn is fit to cut, the mixed grain is almost ripe or well over the dough stage and then mix the two as they go into the silo. This is the "O. P. V." mixture up for the lack of sars in the corn and the straw will absorb the juice that would otherwise sour the corn. This stuff, cut at the right stage, is giving excellent results to a number of farmers who have used it and if you know of anyone up against this problem, pass this idea along to them."

In Conclusion.

There is no reason why the silo should not be quite as useful an accessory to the farm this year as in all the years that have passed. As a method of supplying succulent food in first place. The substitution of other crops for corn may mean a different ordering of the season's work, but the time saved from cultivating and competing with disturbance in the established routine. The rest of us would rather have corn of suitable varieties, but we will accept the present condition as unavoidable for this season and try to keep a year's supply of good seed corn ahead in the future.

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|----------|---------|----------|---------|
| 30"..... | \$6.70 | 36"..... | \$8.80 |
| 32"..... | \$ 8.15 | 38"..... | \$ 9.25 |
| 34"..... | \$ 9.55 | 40"..... | \$ 9.85 |

You see value direct from this list, and both less and more. Simply mention diameter of blade, width of teeth, and number of your order. I ship promptly.

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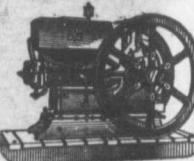
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Taking the Gamble Out of Seed Corn

CANADIAN corn growers are faced with the most serious seed corn situation in the history of American agriculture. Many farmers, both in northwestern Ontario, where corn is grown largely as a grain crop, and in other sections of the country, where silage corn only is produced, feel that the putting in the ground of the seed available this year is more or less of a gamble. Perhaps the seed will grow and perhaps it won't. Many are pessimistic enough to believe that likely it won't. Fortunately there is a method of taking the gamble out of corn planting. Test the seed. A simple and easy way of doing this has been popularized by the United States Department of Agriculture under the name of "The Rag Doll Method." This method is practiced extensively in the United States, and has also been followed by some of our most successful growers in Canada. By this method, where seed corn is obtained on the ear, at least 90 per cent. of the gamble is eliminated in corn culture, and where it is obtained shelled, the rate of planting may be so adjusted as to insure a full stand.

The rag doll tester consists of a piece of muslin on which squares are drawn and numbered. Take a strip of muslin, 12 inches wide. Divide the central six inches into three equal squares with a lead pencil and number each square. Get out your jack knife and from each ear of seed corn extract six kernels, two from each end and two from the centre of the ear. Place three or six kernels on square No. 1 and lay the ear on a rack or shelf provided for the purpose. Proceed similarly with the next ear and arrange the kernels on square No. 2. Lay this ear next the square No. 1 and then go on to ear No. 3, always arranging the ears so that their number will be known. When samples have been taken of all of the ears of corn, or of all of the squares on that particular strip of muslin have been filled, fold over the sides of the cloth (the outside three inches) so as to hold each grain in its place. Then roll the muslin around the corn cob a bunch of straw or similar material, tie with twine, and stand on one end in a pail containing warm water. Capillary attraction will keep the "doll" moist and the kernels will sprout.

Arranged the Seeding.

In a very few days, if the water has been kept warm and in a warm place, until the "doll" opens it up carefully and take note of the number of kernels germinating in each square. The vigor of the sprouts might also be noticed. It will be found that some of the ears are worthless for seed, and these should be rejected for feeding. Some of the ears may have germinated 100 per cent. These should be collected and kept by themselves. Others will have germinated three, four or five kernels out of six. All of these should be classified, and when seeding time comes the thickness of the seeding will be determined by the germination test of the particular lot of ears that are being used. For instance, where only three kernels germinated, twice as much seed will have to be used to insure a full stand as will be the case where all the kernels germinated.

Practically all of the seed that silage growers will get this year will be shelled corn in sacks. It is just as important that this corn be tested, as seed corn on the ear, and the rag doll method, with variations, may be used. Very few growers will be using more than two or three sacks of seed corn. Mix the seed in a sack thoroughly, count out 100 kernels, and lay them out evenly on the muslin cloth. Proceed similarly with the

other sacks of corn. Roll up, sprout and notice the germination. All sacks may not be of the same origin, and there may be a considerable difference in germinating power. If the seed in a sack germinates 90 per cent. or over, the usual rate of seeding may be followed with fair assurance of a full stand. If, however, the seed in another sack tests less than 90 per cent, the usual rate of seeding must be increased accordingly.

Prof. Gerhardt, of Ohio, says that any farmer any year can make \$10 an hour testing seed corn. Under the abnormal conditions prevailing this year he might easily make \$100 an hour were the seed supplied him of low germinating power. An hour's work would be sufficient to arrange for the testing of all of the seed used on the average 100-acre dairy farm, providing the seed is supplied shelled. It would not take half a day to test the seed corn supplied on the ear once one has had a little practice in doing the work. The main point, however, is to get the seed corn in good time, if you can, and then test it.



BRUCE'S FAMOUS ROOT SEEDS

Bruce's Giant Feeding Beet—In two colors, white and rose, a cross between Sugar Beet and Mangel, splendid croppers and keepers, and unequalled for feeding, easily harvested. $\frac{1}{2}$ lb. 30c; $\frac{3}{4}$ lb. 55c; 1 lb. \$1.00; 5 lbs. \$4.75 postpaid.

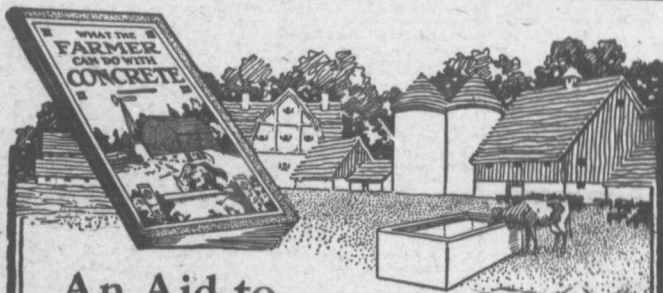
Bruce's Mammoth White Carrot—A half long variety, heavy cropper, splendid quality, easily harvested, grand keeper. $\frac{1}{2}$ lb. 60c; $\frac{3}{4}$ lb. \$1.10; 1 lb. \$2.00 postpaid.

Bruce's Giant Yellow Mangel—An intermediate variety, heavy cropper, good keeper, of splendid feeding quality and easily harvested. $\frac{1}{2}$ lb. 30c; $\frac{3}{4}$ lb. 55c; 1 lb. \$1.00; 5 lbs. \$4.75 postpaid.

Bruce's Selected Swede Turnip—A grand purple top variety, splendid for the table and also for feeding cattle. A grand keeper and shipper. $\frac{1}{2}$ lb. 60c; $\frac{3}{4}$ lb. 75c; 1 lb. \$1.40; 5 lbs. \$6.75.

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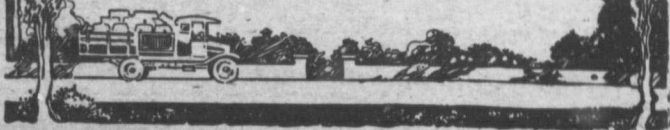
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Shall We Make the Dairy Farm Self-Supporting?

(Continued from page 6.)

saved is a dollar earned.

"There is less risk of having weeds and disease carried to the fields and herd, by using home-grown feed as compared with purchased feed.

"Home-grown feed is likely to be fed more liberally, than is feed bought from the dealer. The practice of feeding home-grown stuff, tends to promote liberal feeding, lack of which, is one of the greatest weaknesses in the handling of dairy cattle under present conditions of high cost for nearly all kinds of feed."

J. H. Griedafe Discusses the Point.

"The question is important," writes Prof. Griedafe. "The usual practice is to depend upon the farm for the roughage and part of the concentrates and to supplement by purchasing considerable quantities of such feeds as bran, oil cake, cotton seed, brewers' grains, etc.; and I am of the opinion that this is about the best way to handle the dairy farm in Eastern Canada. To attempt to produce all the concentrates necessary to the maximum profitable production of milk on any given farm would mean decreasing to a considerable extent the number of cattle kept on said farm, and would remove the possibilities of profit from trading as they now exist where the farmer buys a few hundred dollars' worth of feeds and, after manufacturing them into dairy produce through the medium of his dairy herd, sells them at a fair margin of profit.

"Taking away this opportunity of increasing the business without materially decreasing the labor on the farm would, in my opinion, be a mistake. Of course, many farmers under present difficult conditions are to the purchase of feed, would be very glad indeed if they had herds only as large as could be maintained entirely on the produce from their own farms, but I believe that in the near future the supply of the necessary feeds will be much more easily available even if prices do remain at a high figure and that it will be easily possible to continue the business as heretofore.

"Another consideration in connection with this matter is the utilization of the by-products and surplus coarse grains from those parts of the country where live stock are not so commonly kept. To allow all these feeds to be exported would be, in my opinion, a serious reflection upon the enterprise and business acumen of our dairy farmers, and would mean a great loss to Canada as a whole, since the finished products in the form of cheese, butter or condensed milk, or even milk itself, would bring in much greater returns in the way of money than would the raw products from which they are made, in the form of concentrates of one kind and another, and they would, at the same time, do very much less in the way of carrying off fertility drawn from our Canadian farms.

"In view of the condition of affairs above described, I would say that I am decidedly in favor of farmers increasing their stock and devoting their farms, as far as possible, to the production of roughage. For many there is, of course, always the need for producing a considerable quantity of straw for one purpose or another, which would mean the growing of grain in considerable quantities and which is, of course, a necessity if the land is to be kept under a suitable rotation where grass and clover have their proper place and which must, of course, be seeded down with some nurse crop, such as wheat, oats or barley."

What Dairy Farmers Say and Do. Recently an editor of Farm and Dairy, traveling through the more easterly counties of Ontario, gathered some information on the problem un-

der discussion. Mr. G. B. Rothwell, of Ottawa, assistant Dominion Animal Husbandman, gave it as his opinion that so far as the Ottawa district is concerned, the type of dairy farm which pays best is that on which the roughages are grown, including corn and clover, as well as a considerable acreage of peas and oats or oats and barley to act as a basis on which the meal ration is founded. As below, too, that the dairy farm should be made entirely self-supporting by growing some cash crop, potatoes for instance, which will pay for the concentrates which must be bought.

J. D. McDougall & Son, in Glenora county, feed 21 cows and 11 calves on 140 acres. They grow as much of their grain as possible, preferably peas and oats, threshing about 2000 bushels a year. In addition to

Why Have a Silo?

By J. H. Griedafe.

SILAGE is a cheap cattle feed. A very heavy crop of clover is the only other crop that will compare for economy with corn ensilage; or a very heavy crop of mangels or turnips.

It lessens the labor of production. Corn requires less labor when fed per acre is considered than either clover, and uses labor more profitably.

Corn ensilage enables one to duplicate June pastures in winter. Cows will eat silage as eagerly as grass in June, and we have had our cows coming in off the finest pasture and eat silage with avidity. It is a perennial spring.

The silo economizes on land. More stock can be kept on the small area with a silo than on a larger farm without a silo. The growing of corn prepares the ground for a future crop. Where can you get a better crop of grain or a better stand of clover than after a well-cultivated crop of corn?

The silo represents storage economy. You can store more animal food in a cubic foot in the form of ensilage than in any other form of farm roughage.—Extract from Address.

this, they have 15 to 15 acres of corn for the silo and abundance of clover hay. Even with 40 to 50 acres in grain, considerable quantities of concentrates have to be purchased. No cash crop is grown, the meal bill is paid out of the milk cheque. Mr. McDougall does not pay much on account of lack of land and feeds grain practically the year round. He believes that the farm would be more profitable were there a greater acreage for pasture. About eight years ago Mr. McDougall started in pure bred Holsteins and now his entire herd is registered. The extra income from the sale of pure bred stock, therefore, takes the place of the cash crop recommended by Mr. Rothwell.

W. E. McKillop, just across the road from McDougall and Son, believes that it pays to keep all of the stock for which you can grow roughage and buy concentrates. He grows a large acreage of corn and clover hay and just sufficient oats or peas to keep the land seeded down. High prices for city milk are considered a sufficient incentive to keep all the cows possible. The annual feed bill is a large one but the milk cheque is also large and Mr. McKillop believes his system most profitable under his conditions.

On a Farm Not Adapted to Grain. Mr. J. W. Kennedy of the same

count, as a adapted lar cow His di it mig the good entlab age, I led of our buys summer The d farm s malifac nedy re concern Acro in the Thine comfort which by virti quant chanced this fa of foot qualit here v ful dal been di the gr Chesto been m farm. tion,—1 ley, has to 10 two of corn to in the devoted farm been bu now ha alfalfa and root tall. his estate he have cash crop pay for to admit successful the tion of of truce. price to spec

"The ba the last form of resolute understa tains 25 gradient sell who for tempt to own farm the milk my farm grow enen, but the cow being in depleted centrate tiling a Another the men that on is maintain possible work in as a rem available Intensive trives wi crop. O small far on this corn ensi quantities grown. I never yet profit over pays the But wh the Ota

county is known among his neighbors as a successful dairyman. He has adapted his system to meet the peculiar conditions under which he works. His district is not as well drained as it might be and therefore not suited to grain growing. There are, however, good pastures and the conditions are suitable to the production of roughage. Mr. Kennedy grows a little grain, lots of smallage corn and hay, but buys his concentrates. His practices summer dairying most extensively. The drains are now being laid on the farm and the drained land seeded to alfalfa. With more alfalfa Mr. Kennedy expects to cut down his bill for concentrates considerably.

Across the line in Stormont county is the little 75-acre dairy farm of S. U. Timmess and Son. Two families are comfortably supported on this farm which carries a good sized dairy herd by virtue of the fact that considerable quantities of concentrates are purchased each year. Corn ensilage is considered to be the cheapest feed on this farm and now two or three acres of roots are being grown to reduce the quantity of concentrates in the ration. Here we have an example of successful dairying where the feed store has been depended upon most largely for the grain ration. Farther West at Chesterville, Farham Allison has been making good on a 35-acre dairy farm. He follows a four year rotation,—hoe crop, oats or oats and barley, hay and then pasture. He grows 10 to 15 acres of corn and an acre or two of sugar beets. He raises enough corn to feed twice a day for 11 months in the year, as much land cannot be devoted to pasturing on so small a farm. In the past, Mr. Allison has been buying considerable meal, but he now has seven and one-half acres in alfalfa and by the use of alfalfa hay and roots, hopes to cut into his feed bill. He believes that the profits of his enterprise, would be increased did he have extra land on which to raise a cash crop, such as wheat or beans, to pay for his concentrates. He is free to admit, however, that he has been successful as a dairymen, while putting the main emphasis on the production of roughages and buying concentrates. Here too, however, the high price of purchased feeding stuffs tends to upset other systems.

Soil Fertility.


"The maintenance of soil fertility is the basis of permanent success in any form of farming," remarked one progressive dairymen near Toronto. "I understand that a good dairy cow retains 25 per cent. of the fertilizing ingredients of her feed in the milk. I sell whole milk to Toronto. Did I attempt to take all of the feed from my own farm and ship the value away in the milk cans I would be running out my farm at an awful rate. I plan to grow enough grain for the horses and hens, but buy in all the meal ration of the cows. As a result my farm is being increased in fertility instead of depleted. I regard the buying of concentrates as the cheapest way of fertilizing a farm."

Another point mentioned by one of the men with whom we talked was that on the farm where a large herd is maintained by buying feed, it is possible to employ more labor, the work in the fields will be done better as a result and probably time will be available to grow some of the more intensive crops and buy the concentrates with the proceeds of the cash crop. One of the most successful small farms of which we know is run on this principle. Alfalfa hay and corn ensilage are produced in large quantities, but not a pound of grain is grown. Two to four acres of potatoes never yield less than \$100 per acre profit over cost of seed and fertilizing material and this money more than pays the grain bills.

Conclusion.

But where is the greatest profit on the Ontario farm? We have merely

discussed the question. Every man must decide the answer according to his conditions. Where alfalfa can be grown successfully we incline to believe that the plan outlined by Mr. Mitchell of Wisconsin, with a small cash crop area and a little more meal purchased will be an almost ideal system. Even in other districts, where red clover or sweet clover must be the main dependence, we question if most money cannot be made by approximately the same plan, but with a larger area in cash crops and just enough grain to keep the farm seeded down. As the farm tends away from specialized dairying and becomes more diversified, then the self-supporting farm becomes more feasible. The only safeguard of the man who buys concentrates nowadays, however, is a herd of real good dairy cows that will give a good margin of profit over the feed consumed. Also, to be sure of a supply, feed must be purchased far in advance and whenever it can be gotten. The most conclusive treatment of this subject will probably come when farm survey work has been conducted extensively in our dairy districts.—F. E. E.



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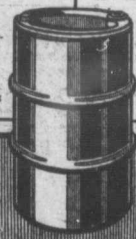
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STAUDE Make-a-Tractor

The following, taken from Farm and Dairy, issue of March 7, 1918, refers to the Staude Make-a-Tractor:

"When the Provincial Plowing Match was held at Brantford last fall, we all went down in the car, and during the day I had a chat with Mr. Dawson, the manager of the Lakeview Farm. Among other things he told me that they had purchased a tractor attachment for their Ford car. 'It is working splendidly,' said Mr. Dawson, when I asked him about it. 'It is drawing two 12-inch plows up and down the stiff grade behind the barn. You simply can't beat the quality of the plowing, and it is a one-man operation, the driver controlling the plow with the line just as they do from these tractors here. It is plowing about five acres a day. He doesn't have to stop for rain—just puts up the top of the car and goes ahead. My wife ran the plow with the car for half a day just for the novelty of it.'

"And how does it compare with horses for expense?"

"We have been plowing with horses, too," said Mr. Dawson. "Three horses on a double bottomed plow turned over just three and one-half acres a day. We had two single teams plowing in the same field, and they turned over just one acre a day. We were paying these plowmen three dollars a day wages, which is three dollars an acre wages, and had the horses to feed besides. It cost about \$1.60 an acre for gasoline and oil with the car and tractor attachment. Heating! No, we haven't had any particular trouble. The machine has run 10 hours and never boiled the water in the radiator. You see, there is a special radiator hose along with the tractor attachment, a pump to force circulation through the engine, and a special oiling system."

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A Dairy Council Will be Organized in Ontario

Initiative Steps Taken at Guelph by Representatives of all Branches of the Dairy Industry

A DAIRY COUNCIL in Ontario, having behind it all of the power of existing organizations, will soon be a reality. Last week representatives of the industry met at Guelph, and took the steps necessary to organization. The following recommendation, accepted unanimously, tells the whole story of the work accomplished:

"At a meeting of leading dairy interests held in Guelph on April 4th and 5th, 1918, a special committee was appointed to consider the question of the formation of a provincial dairy association or council. After carefully considering the matter, the members of this committee, who represented all the various branches of dairying, recommended that a Provincial Dairy Committee be formed, composed of two members from each existing dairy association or any dairy association which may be formed, and departmental representatives to be named by the Minister of Agriculture for the purpose of making definite recommendations for creating a permanent provincial dairy council, and requested that the Minister of Agriculture take action in accordance with the above at the earliest date possible." Mover, W. H. Forster; seconder, S. B. Trator.

It is not anticipated that such a council will agree on all subjects affecting the industry. Prof. H. H. Dean, who called the meeting, did not anticipate that such would be the case. There are, however, many subjects that interest all branches in common, and with such problems a central council could deal effectively and authoritatively. The conflicting interests of different branches of the industry found frequent expression during the meeting, but the meeting also found much common ground, and the time seemed ripe for the launching of a provincial letter was read from F. M. Logan, Dairy Commissioner of Saskatchewan, looking toward farmlands affiliation in a Dominion Dairy Council, but necessarily no definite action could be taken until the provincial association is actually organized. The speakers at the four sessions of the convention did not confine themselves to organization, but discussed all sides of the dairy business. If anything, the field was too broad to lead to effective conclusions in any direction, and the impression that would have been left on a disinterested visitor would be that there is still room for separate organizations to represent each class in the industry, and that the function of the central will be limited, though valuable in its particular field.

The meeting placed itself on record as opposed to the abolition of fair fairs, notice having already been served that an act to this effect will be introduced in the Dominion House as a war measure.

Purpose of the Convention.

Prof. Dean, in opening the convention, defined its object as an opportunity to talk over dairy matters for the coming season, to discuss the advisability of forming an Ontario dairy council, and to bring the college closer in touch with the dairy interests. Mr. S. Young, President of the Guelph Milk and Cream Producers' Association, who presided at the first session, told of the good work accomplished by organization in the Guelph district, and then called on Mr. Stonehouse, President of the Ontario Milk Producers' Association, to speak for his branch at the address. Mr. Stonehouse was an excellent summary of the situation faced by the producer of city milk. Cost of production and price have both increased materially, but always with the price "a couple of cents" behind the cost of production. He justified the prices asked by the producers' associations by reference to the investigations of the Food Controller's

Milk Commission, a body on which he was the only farmer representative, and which started out with the idea that milk prices were too high, but who afterwards, after a long period, the only question was if producers would be willing to continue producing at the prices they had named. Nor does the situation improve moment. Feeds are still going up, and regulations to the contrary notwithstanding, shorts is selling openly at \$50 and bran at \$40 to \$45 a ton. He voiced one truth, too often overlooked, when he remarked that "the labor situation is more serious for the consumer, the nation and the Empire, than for the individual farmer." Farmers, he felt, were not sufficiently impressed with the seriousness of the situation, principally because their information had come to them largely through channels on which they do not place reliance.

"The farmer will face a most serious situation once the war is over," said Mr. Stonehouse, closing the subject under discussion. "He will then need all the organization he can have to defend his rights." The speaker then omitted the usual difference between farmers and other interests in their demands—the former demand no special privileges, but only the removal of obstructions placed in their way at the behest of the latter. The removal of the protective tariff on supplies, he stated, would help producer and distributor alike.

Concentrate City Milk Business.

Mr. Jno. Bingham, of Ottawa, speaking for the distributing mentioned several factors which, he considered, would be conducive to war-time economy and efficiency. Principal of these was the concentration of the business in a few plants. One distributing centre, he thought, should serve 100,000 to 150,000 people, and duplication of deliveries and equipment avoided. Such concentration, at Guelph, had resulted in higher prices to the producer and lower to the consumer. A minor economy would be for farmers to own their own cans, with resultant better care.

Mr. Geo. A. Putnam, Dairy Superintendent of Ontario, took exception to the formation of a separate and new association with membership fees. His view of the organization to be formed was that of a clearing house for questions in which all existing dairy organizations were interested, and on which they desired concerted action. Its membership, he thought, should consist of representatives appointed from the existing associations. Several dairymen spoke in favor of organization along this line, among them being the president and secretary of the Toronto Milk Dealers' Association, Mr. Hughes, of the Farmers' Dairy, and W. H. Forster and D. C. Platt, of Hamilton. Finally a committee was appointed to consider plans for organization and report the following day. Its personnel was as follows: G. A. Putnam, Toronto; S. B. Trator, Toronto; E. T. Stonehouse, Weston; W. H. Forster, Hamilton; R. W. Stratton, Guelph; G. A. Gillespie, Peterboro, and F. Boyes, Lambeth.

Producers and Distributors Clash.

During the afternoon there was a lively interchange of opinions between producers and distributors as to the advisability of training winter milk prices through the Ontario Dairy Council. Mr. D. C. Platt, speaking as both a producer and distributor, thought the move unwise. Condensary prices for the summer he quoted as \$1.15 a city quart, and \$2.50 a can, condensary milk will be diverted to city trade, and much milk would be turned back on the producer's hands. Mr. Stonehouse replied that if the prices were "a couple of cents" behind the Food Controller's order made provision for an investigation. A good reason for a continuance of winter prices, he said, was to encourage con-

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By VICTOR W. PAGE

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tinued production, as many farmers had found that they could make more money selling grain and surplus stock. Mr. Young opined that cheap milk in the past had been due to its production as a side line. It was now becoming a specialized business and higher prices must prevail.

The Evening Session.

Dr. Hastings did not discuss organization of dairying, but he did give a most interesting talk on safeguarding the milk supply. Ordinary market milk, unprotected, he said, was the cause of more sickness and death than all other foodstuffs combined. It may also spread typhoid, scarlet, fever, tuberculosis and other diseases.

Sanitary measures in production and "proper scientific pasteurization," will make clean milk and healthy milk. Incidentally he expressed his conviction that there was no profiteering in the milk business, and expressed his surprise that consumers should consistently and strenuously oppose any increase in the price of milk, while the cheerfully accepted advances five times as great in more expensive food stuffs.

Oleomargarine is a well-informed enemy in Dr. G. L. McKay, of Chicago, Secretary of the American Association of Creamery Buttermakers. This address will be given fully in a future issue of Farm and Dairy. He quoted leading food authorities in support of his contention that margarine was not a proper food for growing children. He traced its career of fraud and deception in all countries, and incidentally offered evidence that the restrictions imposed on its use by the Food Controller are not being observed: He had had oleo, for supper at the hotel that very evening, and no card was displayed announcing that it was served. "I hope the time will never come in this country," said he, "when the butter of this country will be made from the intestinal fats of the hog and the cow."

A. R. Ruddick, Dominion Dairy Commissioner, spoke briefly in the absence of the Minister, Mr. Crerar. He endorsed the idea of a provincial council and affiliation of all provincial associations in a Dominion council which, for example, might strengthen his hand in making recommendations in the dairy interests. Such interest, however, should have its own association as well. He placed the value of Canada's dairy products in 1917 at \$191,000,000. The details are as follows:

| | Quantity. | Value. |
|-----------------------------|-------------|--------------|
| Cheese | 194,000,000 | \$42,255,000 |
| Creamery butter | 74,000,000 | 31,580,000 |
| Dairy butter | 150,000,000 | 60,000,000 |
| Condensed and powdered milk | | 8,000,000 |
| Milk, cream and ice cream | | 50,000,000 |

Mr. R. J. McLean, of Toronto, speaking for the produce trade, defended the cold storage men against the attacks that are being made on them, reviewed the necessary functions of cold storage, and suggested that producers and dealers might very well work in closer cooperation.

The Cheese Industry
Mr. Frank Boyce spoke for the cheese interests on Friday morning. After expressing the hope that prices of dairy products would be equalized this season, he made a few suggestions for the season's work. Experiments might be made under factory conditions in the early spring to determine methods of getting maximum yield. He thought, too, that cheese might now be made with a little higher moisture content, in that cold storage facilities are now good, and the cheese goes directly to its market. On this point, Messrs. Hertz, Publow and Ruddick disagreed with him. Mr. Publow mentioned the agreement of makers in Eastern Ontario, whereby they guarantee No. 1 cheese as in the way of more moisture, and suggested that more fat in the milk would be the best way of increasing yield. Mr. Ruddick stated that much cheese has re-

cently been bought in the United States for 18 cents, because of too much moisture. Also, this year the cheese may not go so directly to the Old Country. Incidentally he announced that the Cheese Commissioner will be known this season as the Dairy Produce Commissioner, and will operate under the British Minister of Food, with the Allied Provision Commission, and the Canada Food Board represented on the Commission. The producers will be represented by two men, one from Quebec and one from Ontario, the latter representative being Mr. Jas. Donaldson, of Altwood. Mr. Ruddick and Mr. Alexander are the remaining two representatives. A meeting will be held on Tuesday of this week to consider the price of cheese for 1918. Mr. Publow discussed why butter as a method of food conservation, and decided that if the milk is properly handled on the farm and in the factory there will be no little loss in the whey that skimming is a doubtful benefit. "If whey is to be skimmed," he advised, "pay the makers for the making and don't make them partners in the profit."

Dr. McKay gave a practical talk on problems in creamery butter making. Some of his main points will be reviewed in a future issue of Farm and Dairy. He concluded that competent butter makers are rare, but as a whole (Continued on page 18).

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The paid subscription to Farm and Dairy approximates 20,000. The actual circulation of each issue, including copies of the paper sent to subscribers, who are but slightly in arrears, and sample copies, varies from 15,000 to 20,000 copies. All advertisements are accepted at least than the full subscription rates.

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

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The Rural Publishing Company, Ltd.,
PETERBORO AND TORONTO

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

Double Shifts and Unpaid Labor

THE first measure before the present session of the Dominion House to cause a distinct cleavage between urban and rural members was the one known as the "Daylight Saving Act." Rural members made such a clear case against the bill that its supporters were placed immediately on the defensive. Many and nonsensical were the suggestions made by city members as to ways in which farmers might meet the adverse conditions imposed by the act, but of all the impossible suggestions, that of the honorable member for South York, Mr. W. F. Maclean, must be given first place. His suggestion called for a double shift of laborers on the farms. "It might mean time and a half of pay and a half," said he, "but that is the way to get increased production. Other members, who were a little closer in touch with the situation, immediately wanted to know where the extra laborers were coming from for double shifts when there is not help available now for a single shift. Mr. Maclean replied: "There is a capital way of raising labor and that is for every man to raise a family. I know Quebec and I commend Quebec in regard to that. They have not perhaps that scarcity of labor which we have in the West. Well then, follow Quebec's example; go any place where you get a good example."

The honorable member for South York evidently understands, as revealed by his second suggestion, how agricultural production has been maintained in the past—on the unpaid labor of women and children. This method of maintaining a supply of cheap food for urban consumption evidently appeals to him, and he suggests that it be continued. The ideal for which farmers are striving, however, is a position where they can command such prices for their products that they can embrace Mr. Maclean's first suggestion, give extra pay for extra work and not impose the whole burden on themselves and their families as they have been compelled to do in the past. It was just this policy of long hours and hard work for every member of the rural family which has drained and is continuing to drain rural districts of both

capital and labor and leaves agriculture almost incapable of meeting the demands made upon it in a time of prices such as the present. These hardships are directly traceable to legislative enactments contrary to the interests of agriculture and a long step will have been made towards bettering conditions when farmers send more of their own number to Parliament. The need of a really representative body of farmer members in the House was never more evident than in the debates and divisions on the Daylight Saving Act.

A Farmer in Charge

THE appointment of Hon. T. A. Crerar as Dominion Minister of Agriculture promises to prove an epochal point in the relationship of farmers as a class to the Dominion and possibly to the provincial governments. In the past when matters of importance relating to agriculture have arisen the government has generally appointed commissions composed of representatives of various classes among which farmers were conspicuous by their absence. The direction of work relating to agriculture has generally been placed in the hands of government officials, the farmers themselves, as a class, not being consulted in advance as to their views.

Hon. T. A. Crerar is making an important change in this condition. Through his efforts farmers have been appointed on a number of the Military Tribunals and Leave of Absence Boards, where, while they have not been able to accomplish all that might have been wished, their presence has been productive of much good. A farmer has been appointed on the special committee that is investigating the Dominion live stock situation, and one or two farmers are to be placed on the Cheese Commission. Most important of all, however, was the appointment by Hon. Mr. Crerar of Hon. C. A. Dunning as Director of Food Production for Canada. As a homesteader and later as manager for some years of the Saskatchewan Cooperative Elevator Company, Hon. Mr. Dunning became known as one of the most able leaders in the farmers' movement in Canada. Thus, in the food production campaign farmers will not merely be told what they should and should not do, but will know that in this case the whole campaign is being led by a man familiar with their difficulties and therefore in an excellent position to cooperate with capable officials of the Department of Agriculture in promoting the work in which all are interested.

These staves indicate that the time has come when the Government realizes the importance of consulting farmers as a class in advance on important matters instead of treating us as children who need to be told what they should and should not do. The change is all in the right direction and should tend to bring about a better understanding between the farmers and the Government and should ultimately tend to make the work of the Departments of Agriculture better understood and more appreciated.

Milk, a Cheap Food

IT would be a grand thing for the dairy farmers of Canada if, in some effective way, consumers could be made to realize that dairy products are the cheapest animal foodstuffs on the market. There is no lack of evidence to prove the point. The lack comes when we try to find some way of presenting the facts to that class who are now complaining of what they are pleased to refer to as "the high price of milk, butter and cheese." At the recent meeting of the Alberta Dairywomen's Association, Prof. Washburn, of Minnesota, gave such evidence as we would like to see placed before consumers generally. His table of comparative costs showed that milk, with its useless water content gone, at twelve cents a quart, cost about 36 cents a pound. The cost of other foods, with waste and water eliminated, per pound, was as follows: Top milk, 48 cts.; hamburger steak, 90 cts.; eggs, \$1.35; oysters, \$2.50; whitefish, \$1.45; fat cow, \$1.12; cheese, 48 cts., and cottage cheese, 35 cts.

These are striking and convincing figures. A

general appreciation of their significance would lead to an enormous increase in the consumption of all dairy products. But Prof. Washburn was presenting these facts, not to an audience of consumers who do not understand the situation, but to a body of producers who are at least fairly cognizant of the value of their product. The report of his address will be published in the agricultural papers, such as Farm and Dairy, and in a Government bulletin, which again reach only the producing class. At present there is no agency in Canada whereby facts such as these can be kept before the consumers. In the United States, producers were attempting to reach consumers through an advertising campaign conducted by the National Dairy Council, but this campaign has been suspended for the duration of the war. When first launched, however, results seemed to justify the expenditure. Dairymen in Canada have no organization comparable to the National Dairy Council, and perhaps the first step necessary toward the educating of consumers in the food values of dairy products is closer union among the dairymen themselves. Steps have already been taken in the West looking to the formation of an organization to be known as the National Dairy Council of Canada. We believe that the East, too, is all ready to get in line. With our organization complete, an educational campaign among consumers may then be possible.

Calling Their Bluff

A GOODLY number of daily newspapers throughout Canada have assumed an attitude toward the farmers that is little to their credit. While calling for greater and still greater production of foodstuffs, these same publications never let slip an opportunity, by innuendo or direct attack, of giving the city reader the impression that he is being made the helpless victim of the producers' greed. The price of milk advances. Immediately a section of the city press clamors in protest. They tell us that the children of the poor are being denied the right to exist because the price of milk has advanced fourteen per cent. The dairy farmer objects to the letting down of restrictions against a substitute for butter, the sale of which in all other countries has always been accompanied by wholesale deception and fraud, with both dairy producers and consumers suffering from the misrepresentations of its makers. Urban editors at once assure their readers that dairy farmers are willing to deprive the children of the poor of the necessary fats and of a cheap and nutritious substitute for butter, because its exclusion means ruin to them. These gentlemen, by setting class against class, are sowing the seeds of dissatisfaction and trouble. It is time that their bluff was called.

These same publications a few months ago found it necessary to increase the price of their morning and evening editions from one cent to two cents a copy. They found that the price of paper and ink, printers' wages, and probably editorial salaries as well, were going up. These are all good and legitimate reasons for raising the price of newspapers, as Farm and Dairy well knows; and we are facing the same conditions ourselves. But why such a clamor when the price of milk advances from fourteen to twenty-five per cent., when at one stroke the clamor makers themselves raise the price of their product by one hundred per cent., if poor folk cannot pay twenty-five per cent. more for milk, can they afford one hundred per cent. more for their morning paper? Are these editors not endangering the intellectual lives of their readers when they permit their business departments to double the price of reading matter. And yet we have no editorial protest against this one hundred per cent. increase, although, apparently, combine methods were used to effect it, as all papers advance their prices on the same day.

Farm and Dairy is glad that many of the best daily newspapers in Canada have assumed an attitude toward the necessary advances in the price of foodstuffs that is fair and just. At the same time the constant stream of abuse indulged in by some of even our leading dailies, does get us "hot under the collar."

Scope of

ALTHOUGH A portion of the agricultural work of a municipality is to understand Agriculture, Dominion 1 directed and are themselves and secretaries representative provincial Farmers' Associations in and in Ontario, shortly in British Columbia, and in the Provinces. The attitude of the themselves and secretaries and of the Council of Agriculture were laid for the work of the members of the C. Rice-John, George Lang, a special report of the Council. The report is in order to read or to authors also.

Future "The work of educational is in the for the profit of the 1. The general information questions in Dominion are 2. Distribut pamphlet for newspaper supplement the speaker 3. Acting farmers' organization is ready for on these matters 4. Present questions to watching the legislative acts 5. Scrutiny and see the effect on 6. Maintaining the part of the regulations. 7. Conduct plain for the national spirit. Other interest for to protect the increase necessary to tremendous prosecution successful in realize increased tax farmers and

The director of the United Farmers of Canada at Vernon first time since the month previous from President of the head of the dealing with the increased membership of the United Farmers of other provinces alone various of deep interest meeting will be sure to read the end to the

In Union There is Strength

Scope of the Council of Agriculture

ALTHOUGH the Canadian Council of Agriculture has been an important influence in promoting the agricultural interests of Canada for a number of years there are still quite a number of farmers who do not understand just what the Council of Agriculture is. In a sense it is a Dominion Farmers' Parliament conducted and directed wholly by farmers themselves. It is composed of four representatives from each of the Provincial Farmers' Companies and Associations in the three prairie provinces and in Ontario. It is expected that shortly it will include farmers from British Columbia and the Maritime Provinces. These delegates, who constitute the Council, elect from among themselves a president, vice-president and secretary-treasurer.

At the recent meeting of the Council of Agriculture held in Regina, plans were laid for important extensions in the work of the Council. In this connection a committee composed of Mr. C. Rice-Jones, of Calgary, and Hon. George Langley, of Regina, brought in a special report which stated concisely the objects and purposes of the Council. These were so well put in the report we publish them herewith in order to give a better idea to our readers of what the Council of Agriculture aims to accomplish.

Future Development Work.

The work of the Council is of an educational and legislative character. It is in the nature of a clearing house for the provincial organization. In brief it is as follows:

"1. The gathering of and tabulating of information concerning economic questions in which the farmers of the Dominion are particularly interested.

"2. Distributing this information in pamphlet form and by means of newspaper and magazine articles supplemented by addresses by qualified speakers.

"3. Acting as the mouthpiece of the farmers' organizations when the time is ready for a public pronouncement on these matters.

"4. Presenting the findings on these questions to the government and watching the course of new or amended legislation regarding these subjects.

"5. Scrutinizing proposed legislation and securing legal advice as to its effect on the farmers' interests.

"6. Maintaining unity of purpose on the part of the provincial farmers' organizations.

"7. Conducting an educational campaign for the purpose of building up a national spirit."

Other interests are already preparing to protect their interests against the increase of taxes which will be necessary to take care of the tremendous debt incurred in the prosecution of the war. If they are successful in their campaign farmers must realize that the burden of increased taxation will fall upon the farmers and the laboring classes.

The directors of the local union of the United Farmers of British Columbia at Vernon, recently met for the first time since their organization the month previous. A letter was read from President Clark, the newly elected head of the central organization, dealing with conclusions arrived at by increased membership, affiliation with the United Farmers of Alberta and the other provinces, cooperative effort along various lines and other topics of deep interest to the union. A meeting will be held in the near future to receive the report of the delegates to the central convention, Victoria, when it is hoped some misapprehension as to the aims and objects of the United Farmers of British Columbia will be removed.

A Dairy Council will be Organized in Ontario

(Continued from page 17.)

they are 25 years ahead of the producers. Methods of controlling moisture and salt were considered, and good butter making was defined as working enough to properly incorporate moisture and yet not so much as to injure grain. Mr. Mack Robertson, President of the Ontario Creamerymen's Association, followed Dr. McKay in a brief discussion.

Milk Powder and Condensed Milk.
Mr. R. G. Leggett, President of the Eastern Ontario Dairymen's Association, presided at the concluding session. Mr. S. B. Trainer, of the Canadian Milk Products Company, removed any mystery that is supposed to shroud the manufacture of milk powder and condensed milk, by describing both processes in detail. His own company, manufacturing the former product, do business with 1,200 farmers, owning 14,000 cows and producing 350,000 lbs. of milk daily.

"Ice cream was once regarded as a luxury," said W. H. Forster, President of the Ice Cream Association, "but now it is regarded as a necessity in many homes and in hospitals." Like Mr. Trainer, he traced the history of ice cream making and described the commercial ice cream plant of to-day, with its substitution of condensed skimmed milk and air for the butter fat of the ice cream of earlier days. The ice cream of the United States, he said, averages eight per cent. of butter fat. Mr. Bingham, of Ottawa, quoted investigations, which prove that 75 per cent. of all ice cream is consumed directly as a food. Recently ice cream makers, he said, have been required by the Food Controller to vindicate their existence, and an order will soon be out setting a maximum to the fat content of ice cream, probably 10 per cent. He agreed with Mr. Forster, that solids-not-fat were more desirable than milk fat in making a desirable and digestible food. The chief value of the business, according to him, is that it enables them to utilize the summer surplus of milk in a profitable way. It explains how, last year, his company was able to pay the standard city price for the surplus.

Mr. D. McMillan, instructor in ice cream manufacturing at the College, claimed that they are having difficulty in making ice cream of keeping quality, with a 10 per cent. fat content or less. If it can be done, he thought there must be some secret in the process. Mr. Bingham replied that a little more investigation, such as the manufacturers had given the problem, would reveal any secrets there might be.

In closing the convention, Prof. Dean admitted that the plan for a provincial council that had been adopted was not in exact accord with his idea of such a council, but it was the best possible. He said the same objects he could not object. He appealed for vigorous action through the council to be formed on behalf of the dairy industry. A good starting place suggested by Prof. Dean, was an agitation for improved dairy equipment at the Ontario Agricultural College. This will be accomplished only when Ontario dairymen as a whole, make proper representations to the Government. This he mentioned as only one phase of the industry to which the council might apply itself. A pleasant closing was the tendering of a vote of thanks, moved by Frank Horns and seconded by G. G. Pulewicz, to Prof. Dean, for the initiative he had taken in calling the convention.



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No joy is ever given freely forth that does not have quick echo in the giver's own heart.—Henry Ward Beecher.

The Heart of the Desert

(Continued from last week.)

"YES, you can, John! Yes, you can! Perhaps there is a whole fountain of water there on the mesa!"

The glazed look returned to DeWitt's eyes.

"Or the pitcher be broken at the fountain," he muttered, "or the wheel broken at the cistern—or the pitcher broken at the fountain, or the wheel—"

Rhoda threw her arm across her eyes.

"Oh, not that, John! I can't bear that one!"

Again she stood upon the roof at Chira, looking up into Kutie's face. Again the low walling of the Indian women and the indescribable depth and hunger of those dear black eyes. Again the sense of protection and content in his nearness.

"O Kutie! Kutie!" she moaned.

Instantly sanely returned to John's eyes.

"Why did you say Kutie!" he demanded thickly. "Were you thinking of him?"

"Yes," answered Rhoda simply. "Come on, John!"

DeWitt struggled on bravely to the crest of the next dune.

"I hate that Apache devil!" he muttered. "I'm going to kill him!"

Rhoda quickly saw the magic of Kutie's name.

"Why should you want to kill Kutie!" she asked as DeWitt paused at the top of the next dune. Instantly he started on.

"Because I hate him! I hate him, the devil!"

"See how near the mesa is, John! Only a little way! Kutie would say we were poor stuff!"

"No doubt! Well, I'll let a gun give him my opinion of him!"

The sand dunes had frozen themselves out against the wall of a giant mesa. Rhoda followed blindly along the wall and stumbled upon a precipitous trail leading upward.

CHAPTER XVIII.

The Forgotten City.

Up this tortuous trail Rhoda staggered, closely followed by DeWitt. At a level spot the girl paused.

"Water! John! Water!" she cried.

The two threw themselves down and drank of the bubbling spring until they could hold no more. Then Rhoda lay down on the sun-warmed rocks and sleep overtook her.

She opened her eyes to stare into a yellow moon that floated liquidly above her. Whether she had slept through a night and a day or whether but a few hours had elapsed since she had staggered to the spring beside which she lay, she could not tell. She lay looking up into the sky inactively, but with clear mind. A deep sick roused her. DeWitt sat on the other side of the spring, rubbing his eyes.

"Hello!" he said in a hoarse croak.

"How did we land here?"

"I let guess here sometime in past ages. When or how, quen sabe?"

answered Rhoda. "John, we must find food somehow."

"Drink all the water you can, Rhoda," said DeWitt; "it helps some, and I'll pot a rabbit. What a fool I am. You poor girl! More hardships for you!"

Rhoda dipped her burning face into the water, then lifted it, dripping.

"If only you won't be delirious, John, I can stand the hardships!"

DeWitt looked at the girl curiously.

"Was I delirious? And you were alone, leading me across that Hades out there? Rhoda dear, you make me ashamed of myself!"

"I don't see how you were to blame," answered Rhoda stoutly.

here. It's queer that they haven't discovered us."

Slowly and without further protest, Rhoda followed DeWitt up the trail. Deep-worn and smooth though it was, they accomplished their task with infinite difficulty. Rhoda, stumbling like a sleep-oddend child, wondered if ever again she was to accomplish physical feats with the magical ease to which Kutie had endowed her.

"If he were here, I'd know I was to tumble into a comfortable camp," she thought. Then with a remorseful glance at DeWitt's patient back, "a selfish beast you are, Rhoda Tuttle!"

She reached John's side and together they paused at the top of the trail. Black against the sky, the moon crowning its top with a frost-like rance, was a huge flat-topped building. Night birds circled about it. From black openings in its front owls hooted. But otherwise there was neither sight nor sound of living thing. The desert far below and beyond lay like a sea of death. Rhoda unconsciously drew nearer to DeWitt.

"Where are the dogs? At Chira the dogs barked all night. Indians always have dogs!"

"I must be very late," whispered DeWitt. "Even the dogs are asleep!"

"And at Chira, went on Rhoda, whispering as did DeWitt, "owls didn't hoot from the windows."

"Let's go closer," suggested John. Rhoda thrust cold little fingers into his hand.

The doors were empty and forlorn. The terraced walls, built with the

have some sort of shelter. You have suffered enough. Will you sit here and let me look about?"

"No! No! I don't want to be left alone."

Rhoda followed John closely up to the mass of fallen rock.

DeWitt smiled. It appeared to the tenderest part of his nature that the girl who had led him through the terrible experience of the desert should show fear now that a haven was reached.

"Come on, little girl," he said. "Probably, for they both were weak and dizzy; they clambered to an opening in the gray wall. Rhoda clutched John's arm with a little scream as a bat whirred close to her. Within the opening, DeWitt scratched one of his carefully hoarded matches. The tiny flare revealed a small adobe-walled room, quite bare save for broken bits of pottery on the floor. John lighted a handful of greasewood and by its brilliant light they examined the floor and walls.

"What a clean, dry little room!" exclaimed Rhoda. "Oh, I am so tired and sleepy!"

"Let's look a little further before we stop. What's on the other side of this broken wall?"

They opened the way across the litter of pottery and peered into the other room, the duplicate of the first.

"How will these do for our respective sleeping-rooms?" asked DeWitt.

Rhoda stared at John with horror in her eyes.

"I'd as soon sleep in a tomb! Let's make a fire outside and sleep under the stars. I'd rather have sleep than food just now."

"It will have to be just a tiny smudge, up behind this debris, where Kutie can't spot it," answered DeWitt. "You won't mind having a red eye of fire for company. It will help to keep me awake."

"But you must sleep," protested Rhoda.

"But I mustn't," answered John grimly. "I've played the hero's act in this picnic as much as I propose to. It is my trick at the wheel."

Too weary to protest further, Rhoda threw herself down with her feet toward the fire and covered her head on her arm. DeWitt filled his pipe and sat puffing it, with his arm folded across his knees. Rhoda watched him for a moment or two. She found herself admiring the full forehead, the lines of reticence about the lips that the beard could not fully conceal.

"He's not as handsome as Kutie," she thought wearily. "But he's better—"

—before her thought was completed she was asleep.

Rhoda woke at dawn and lay waiting for the stir of the squaws about the morning meal. Then with a start she rose and looked soberly about her. Suddenly she smiled.

"Tenderfoot!" she murmured.

DeWitt lay fast asleep by the side of it.

"I'll Kutie," she thought. Then she stopped abruptly and stamped her feet. "You are not even to think of Kutie any more! And with her girl, chin very firm she descended the trail to the spring. When she returned, DeWitt was rising stiffly in his feet.

"Hello!" he cried. "I was good this time. I never closed my eyes all day. I'm so hungry I could eat greasewood. How do you feel?"

"Weak with hunger but otherwise very well. Go wash your face, Johnny."

DeWitt grinned and started down the trail obediently. But Rhoda hid a detaching hand on his arm. The sun was but a moment high. All the mesa front lay in purple shadow, though farther out the desert glowed with the low light of a new day.

(Continued next week.)



The Ideal Home for Father and Mother when they Retire.

A home in town for the farmer and his wife, who have worked hard for their lives on their farm and grown to love it and its surroundings, does not seem to be the ideal spot in which they should enjoy the declining years of life. On the farm of Mr. L. H. Newman, Greenville Co., Ont., has been erected an ideal home for the old folk. This is a bungalow built in a pretty location on the banks of the Rideau River and on the old homestead.

"Think what you have been doing for me!"

John rose stiffly.

"Do you feel equal to climbing this trail with me, to find where we are, or had you rather stay here?"

"I don't want to stay here alone," answered Rhoda.

"Very slowly and weakly they started up the trail. The spring was on a broad stone terrace. Above it rose another terrace weathered and disrupted until in the moonlight it looked like an impregnable castle wall, embattled and embattressed. But clinging to the seemingly invulnerable fortress was the trail, a snake-like shadow in the moonlight.

"Perhaps I had better stay at the spring until morning," suggested Rhoda, her weak legs flagging.

"Not with the hope of shelter a hundred feet above us," answered John firmly. "This trail is worn six inches into the solid rock. My guess is that there are some inhabitants

patient labor of the long ago, were sagged and decayed. Riot of greasewood crowned great heaps of debris.

A loneliness as of the end of the world came upon the two wanderers. Sick and dismayed, they stood in awe before this relic of the past.

"Who! Who!" an owl's cry sounded from the black window openings.

DeWitt spoke softly.

"Rhoda, it's one of the forgotten cities!"

"Go back! Let's go back to the spring!" pleaded Rhoda. "It is so uncanny in the dark!"

"No!" DeWitt rubbed his aching head wearily. "I must contrive some sort of shelter for you. Almost any thing is better than another night in the open desert. Come on! We will explore a little."

"Let's walk till morning," begged Rhoda. "I'm so cold and shivery."

"Dear sweetheart, that's just the point. You will be sick if you don't

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The Upward Look

Our Responsibility

HEREBIN do I exercise myself to have always a conscience void of offence toward God and toward men.—Acts 24:16.

It is imperative for every one of God's children to live as blameless a life as possible. Paul's standard was very high, and should be a challenge to us. We must act and live and be not only so that others may not see nor hear nor know of our wrong-doing and sins, but, that we ourselves may know that we are blameless. What soul-peace and joy! This knowledge can give!

One very human and at the same time sad thing is, that if we can only conceal from others that we have done wrong, we do not feel concerned about God's knowledge of it. But also there can be no greater soul-agony than the secret burden of sin about which God alone knows. The best criterion of all actions is the "conscience void of offence toward God."

One of the very greatest responsibilities for all wrong-doing is its influence over others. Just as each is influencing for good those with whom we come in contact, who in turn influence others, so also it is true, in regard to evil. Then as each one's influence lives on after him, so indeed the result of our actions lives on down through the years.

Each wrong word or action on our part may cause another to sin, so we are responsible for that one. Every writer thought even of ours has an influence on our own character, which in turn influences others, which results will continue on down through the ages.

May this solemn thought help us act and think and live and be, that we may be responsible for the living and continuing influence of the good and the pure and the noble.—I. H. N.

HOME CLUB

A Chat on the Train

I AM glad to see the Home Club still running. There is no department in Farm and Dairy for which I look more eagerly. I used to write occasionally myself, but that was so long ago that probably most Home Clubbers have forgotten "Nephew Frank." We seem to have been so busy keeping up with the farm work. I wonder if this is what has happened to "Rob Roy," "The Doctor's Wife," "A Country Philosopher," "Mother" and numerous others who were in the circle years ago. They were a jolly lot and we had some fine discussions.

The cause of my dropping in this time is to tell about a chat I had with a lady on the train when going up from Newcastle to Toronto. This lady got in at Walthy. The car was full, so I shared my seat with her. She was a friendly person and we were soon chatting in a friendly way. When finally she had discovered that I was a farmer I listened to hear about the fortunes that farmers were making and that easy money that every tiller of the soil is now getting at the expense of the less fortunate townpeople. That is the line of conversation to which I have to listen as a general rule when talking with my city friends. Instead, this lady told me about a brother of hers who had moved on to the farm three years ago.

This brother had gotten the idea that he would make more money on the farm and be supremely independent. Finally he purchased a 40-acre farm within 40 miles of Toronto. He knew all about farming—from books. He had plenty of capital—according to

the real estate man who sold him the farm. Probably the majority of Home Club readers know about how well this town bred man got along on the farm. He found that farming required skill, experience and a lot of capital. "He is still on the farm," my estimate told me, "but he is working in a munitions factory in a nearby town. Every morning he gets up at four o'clock to look after the little stock he has and at six o'clock his wife drives him to his work six miles away and goes after him again at night. He is sick of the farm and has decided that the men who know how to make any money farming are fully entitled to all they can get."

I discovered further that this lady's husband was a hard working artisan. She had come to realize through visiting her brother that farmers, too, work hard and for comparatively small remuneration. She now recognizes a community of interest between the men who labor in the cities and those who labor on the farms. It certainly was refreshing to find a city woman taking such a sane view of the whole situation. What a different feeling it would create if all city folk had near relatives working for a living in the city. This is the thought I had in mind when we shook hands and beat each other good-bye at the Union Station, Toronto. It's a good sentiment to cultivate, don't you think?—"Nephew Frank."

Hired Men Decide the Menu

AUNT GRETAS' recent letter to the Home Club concerning the question of how to conserve the food supply if the men folk will not cooperate, seems to me one that we can well afford to discuss, as I believe it is a burning question in many homes. From what I can learn, the husbands and not always the offenders, although they no doubt are quite frequently, but the hired men in some localities at least, have a tendency to cause trouble. When a hired man is on the farm for a new job, if he learns that the wife of the man with whom he is thinking of hiring is a good cook and sets a good table, that factor usually goes a long way towards his making a decision. The difficulty then is that if in our desire to help out the food supply in so far as possible, we do not serve meat two or three times a day and do not have rich and thick food cakes as often as we used to do, we are liable to find that the hired man is circulating a story that his boss is stingy or that the "grub" isn't up to much, or something to that effect.

I picked up a Western Canada farm paper recently, since I read "Aunt Gretas' letter" in Farm and Dairy. We that our prairie farm women are having difficulty along this line too. Here is what one prairie woman has to say: "I notice in almost every journal and magazine I take up the urgent request of food controllers in both Canada and the United States for housekeepers to conserve food by setting before their households and families plentiful substitutes for white flour preparations, meats, sugar and other foods. I want to voice a protest. Many of us prairie housekeepers find that it is not ourselves who choose and decide the menu in these days, but the hired men. They expect just the same good, rich, plentiful food as ever, and if the housekeeper does not serve it, the boss will probably find himself without a man, or his wife find it common talk that her table is not fit to sit down to. So what are we to do?"

I wonder if our Food Control Board has any suggestions to offer for overcoming this difficulty? We certainly cannot afford to lose our hired men nowadays if we happen to be unfortunate enough to have one.—"A Perplexed Housewife."

A man must be pleased with his farm and in love with his occupation before he will make the best success as a farmer.

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All you have to do to get one of these fine chests of Silver is to send in to us Form Ten New Year Subscriptions to Farm and Dairy.

The chest contains 26 pieces of silver—six solid handled knives, six flat handled forks, six tea spoons, six dessert spoons, a butter knife and a sugar shell.

Go out this week and secure the Ten new subscriptions. It will not take you long to get these. Call at your neighbors on your way home from school, and on Saturday—make it a big day by securing the remainder. Send them along to us and we will immediately on receipt of same, have the silver sent forward to you in a fine hardwood chest fitted with drawers and handles.

Circulation Department Farm & Dairy Peterboro, Ont.

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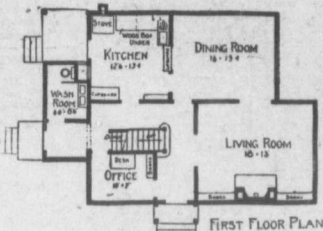
Making Housecleaning Easier

WHO of us but have in our mind's eye a vision of housecleaning time, when the whole house would be turned topsy-turvy, the carpets would be strung along the clothes-line, the furniture out on the veranda and all the windows open. How we dreaded the beating of that carpet, and as fast as we would beat the dust out of the carpet it would settle on the furniture and on the newly washed windows. Some one has rightly named housecleaning days under this system as the "maddest and saddest days of the year." Of course the majority of us do not clean house in the above manner nowadays. We have learned that it is foolish to try to do everything at once, and we find it more feasible to clean one room at a time.

Probably the most trying part of housecleaning ever now. It is, however, is that of lifting, beating and tacking down carpets. By having rugs to fit our rooms, the task of lifting and putting down the carpet is simplified to some extent, but we still have the heavy work of beating them. How many of Our Women Folk have dusted vacuum cleaners? Those who have must surely find a tremendous difference when housecleaning season comes around. Especially in these days when the woman finds her duties probably heavier than ever before, any labor savers which mean a saving of time are of great value in the home. Recently we asked a couple of Our Women Folk for their opinions on the vacuum cleaner. One whom we asked was Mrs. R. M. Holby, of Ontario Co., Ont., and this is what she had to say concerning it: "We have had our vacuum cleaner about five years. It seems to work as well as ever. We

got an electric one, as ours requires two people to run it."

The above opinions should be helpful to any of Our Women Folk who are considering the advisability of purchasing a vacuum cleaner, either individually or cooperatively. We have heard of women who have vacuum cleaners who go over each room in the house at intervals and in this way avoid an accumulation of dust and this done away with a general upheaval in the spring.



House Plans Which Captured Prizes

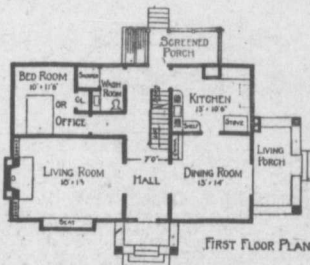
NOT long ago the Wisconsin College of Agriculture held a farm home planning contest. Almost without exception the women who submitted plans gave hard and soft work on tap in the house as the essential farm home comfort. Other comforts mentioned were furnace heating, sewage disposal and lighting systems. Quite a number favored built-in cupboards, china closets and bookcases. The majority favored having the dining room and living room separate, and almost all were desirous of good sized kitchens in preference to small ones. Believing that Our Women Folk would be interested in seeing some of these plans, we are herewith publishing the first floor plan of two houses

which captured first and second prizes in the contest as they appeared in The Farmer, one of our United States contemporaries.

The plan which secured first prize shows the office to the left of the front door entrance and the living room to the right. From the office a door to the left leads to an outside porch and the cellar.

The living room is a large cheerful room, having five windows and a fireplace. Between the dining room and kitchen is a cupboard in the wall which is a good feature. The stove, work-table, sink, etc., are also placed with a view to convenience. Note the wash room and men's toilet on the rear porch to save tramping and spashing indoors.

The second prize plan is also worthy of attention. A fireplace and a window seat are two of the features of the living room, while a china closet is suggested for the dining room. There is a washroom in this plan also, and a shower bath is one of its commendable features. The screened porch off the kitchen and the living porch off the dining room are features which should make a home very attractive, as the porch off the dining room could be used both as a dining and living room in hot weather and the screened porch should make a comfortable work room. Or if desired, these porches might be used as sleeping quarters. A room which may be used either as an office or bedroom is conveniently placed.



Second Prize Plan.

have loaned it a number of times and also rented it at 50 cents a day on different occasions. It is a great help in cleaning carpets and also sucks all the dirt out of mattresses. The vacuum cleaner saves taking up carpets frequently and it is a specialist on corners. Ours cost us \$25."

Mrs. J. R. Job, of Halton Co., also speaks well of this labor saver. She says: "We have a pneumatic vacuum cleaner and have used it about eight years. We use it altogether on the carpets and do not use a broom on them at all. Sometimes we take up the carpets and do not find any dust on the floor, the carpet having been down for two years. It is a great advantage not having to lift the carpets every spring and fall. The carpets do not become soiled nearly as quickly when one uses a cleaner on the carpet, as dust is eliminated. If we were buying a cleaner now we would

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Sept. 9

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FOR SALE—3 Unit Sharples Mechanical Milkier, has been in use about 3 years. In good repair. Terms reasonable. Do not need it, as I have sold my farm. Phone or write. JOHN MCNAY, Box 212, Seaford, Ont.

FOR SALE—Privet, Barbary, Codara, Spruce, Pines, Oaks, Chestnut, Walnut, Mulberry, for hedges, Windbreaks, Timber, making etc. Dozen name variety, one dollar; hundred, five dollars. Lots free. John Downham, Stratford, Ont.

WANTED—Buttermaker. Make about fifty tons per year. Apply stating wages, experience, qualifications, etc. to Box 436, Farm and Dairy, Peterboro, Ont.

FOR SALE, CHEAP—Good feed mill with good water power, good machinery, good trade, situated near railroad. Address Art. Leduc, Manville, Que.

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

How the Girls Have Answered

UP till the last couple of weeks the household editor had had but a very dim conception of the nature of a matrimonial harvest. Now, however, we feel that we have had at least a slight insight into the art of match making and heart breaking. The young ladies into whose homes Farm and Dairy goes each week, have responded most heartily to our contest suggestion which appeared in Farm and Dairy of March. In connection with answering "Jack's" proposal of marriage. We have been simply deluged with letters of various descriptions. It was really surprising to note the number of girls who were willing to accept "Jack's" proposal without the least objections to offer. Before publishing his letter, we were of the opinion that almost all the girls who would send in replies would object most vigorously to his plan of wooing. We did, however, receive a number of spirited replies, and it has been a difficult task to decide on the three which should receive the prizes offered. We have at last made a decision as shown in the three letters which appear herewith. It is impossible, of course, for us to think of publishing all the letters received, but if space is available we may publish two or three more next week of the best contributions received.

Amazing Brain Power
(FIRST PRIZE.)

My Dear Jack: Your loving letter is still warm in my hand, and believes me, a more happy girl would be hard to find. The development of brain power is amazing. No one but a man of brains could plan such wonderfully unique ideas. That horse-back ride to the parsonage! It brought tears to my eyes when I read that part. That's the way my grandmother went away to be married. Grandfather held the rein in one hand and grandmother's in the other. You could do the same!

The labor-saving devices you bought must have slackened your purse strings considerably. I was so tickled over the tub, as I get into a tub and tramp my blankets, quilts and grain bags with my feet. I couldn't do that very well if I had a machine. And I can make soft soap out of the juice of sassa with some grease added. To a part of this I add a little salt and some of ma's Sunday peppermints, and make the most delicate toilet soap ever made. We can keep that for Sundays and for company.

Milk cows? I guess I can milk when quite young. We take Farm and Dairy, a grand paper published in Peterboro. It is a weekly paper but, believe me, you need no other. To save writing I will tell you that it can give you information on anything under the sun. Of course the editor and staff live in town and don't understand the needs of the farmer. They will persist in trying to get the farmer to buy milking machines. Our cows won't come within half a mile of the barn when a machine is around, and what machine will run all over the farm to milk a herd of 15 or 20 cows. Farm and Dairy does not take kindly to obomargarine. It says that a rat gets this on it. Forwardsed is forwardsed.

My darling, you should see our sitting room carpet. It is ravishingly beautiful with all the colors of the rainbow in it. I have some wonderfully pretty ideas for the chairs, two vases and a cheerful decoration of preserved coffin plates, five in all, pertaining respectively to grandfather, grandmother, a brother, sister Ann, and a hired man who died here once.

We will have to get tin pans, a skimmer, a strainer and an old-fashioned dash churn. None of these new fan-dangled change for me, where a woman sits with a dime novel and



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MORE than 100,000 Fords are owned by people in Canada in preference to the old horse-drawn buggy and other makes of cars.

Your neighbors, and farmers in every section of the Dominion are abandoning their old buggies—selling their driving horses and buying Fords.

Ford cars are utility cars. They are built to endure the strain of constant daily use over rough roads.

These are the tests every farmer gives his car. The Ford meets them in a satisfactory manner. It is the farmer's car, so why not replace your horse and buggy with a Ford?



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Capacity 4 quart. Given free for only four new subscriptions to Farm and Dairy.

To Our Women Readers

Would you not like to have one of these "Wear-Ever" double boilers? Once you have one piece of this aluminum ware you will want a complete outfit. Why not try for this boiler this week. All that is necessary to have it is to secure only Four New Yearly Subscriptions to Farm and Dairy at the regular subscription price of \$1.00 a year. Send these in to us and we will ship you the boiler free.

Farm and Dairy Circulation Department Peterboro, Ont.

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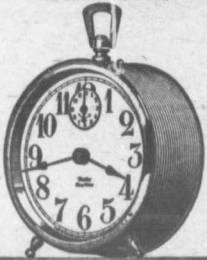
THE strongest recommendation is easily the best medium-priced Sleep-Meter could have. It is the family name—Westclox—on the dial. Westclox is the badge of alarm clock quality. Sleep-Meter is proud to wear it.

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Sleep-Meter is five inches tall, has a cheerful-toned going and an easily read dial. You'll want one of these clocks—most likely one.

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"How a man with no surplus asset, but still with enough money to pay the premium on a life insurance policy, can refuse to do it and then look his children in the face and say his prayers at night on going to bed, expecting them to be answered, is a mystery that I have never yet been able to fathom."

—REV. T. DEWITT TALMAGE.

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Should the individual die, even if only one or two payments of premium have been made, his estate, if in the form of Life Insurance, provides an amount in cash equal to the face value of the policy.

By means of a policy in the Mutual Life of Canada you can create an estate, and you can go through life with the comforting assurance that your most vital problem is solved—the protection of your dependents.

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During the past year the number of homes protected by policies in the Mutual increased by twenty per cent. Since 1899 the Mutual has distributed to policyholders, or their dependents, nearly \$23,000,000.

The Mutual issues policies on many different plans, one of which is sure to fit your particular requirements and means. Write for literature about Mutual policies.

The Mutual Life
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Waterloo, Ontario

churns with her feet. Really that's the way they make butter now, but I guess they use their hands to wash it. We will talk over a separator later. Don't buy one. I could be better employed hoeing potatoes and corn with you than washing the hundred and one bits of tin connected with it.

I was sorry to hear you were lonely dear. I am a nice housekeeper, as you say, and won't we have that good jolly chats, jokes and chummy jamborees. I would go to Greenland's icy mountains with you if it were necessary. I always felt sorry for you dancing attendance on that will-o'-the-wisp of a Mianie. Won't she envy me walking up the aisle next Sunday. I trust her ring fits me.

I have a friend who got married for 15 cents. He gave the parson 25 cents and he gave him 40 cents back. You do the same, dearie. They only give the fee to their wives to deck themselves in frills and furs.

I simply can't write about anything but "conserves." I don't know why when you are so ravishingly extravagant. But I am looking forward to that bank account at the end of the year. Ma is giving me three sealers of pumpkins which she put down last fall, flavored with her church peppermints. They are simply delicious. We can grow all our preserves in the garden.

Well, my darling, I must away and get my beauty sleep. I simply can't wind up without giving you one of my favorite poems:

"The rose is red, the violets blue,
Honey is sweet, and so are you."

With an abundance of love and good wishes, I will say good night and happy dreams—"Madge."

P. S.—If you don't mind I will call you "Jackie" after we are married. Every dog we ever had Pa called them Jack, after a favorite brother who died in the East Indies.

Rather Heartless—But

(SECOND PRIZE.)

DEAR JACK: I acknowledge the receipt of your ardent (?) letter and shall therefore proceed to give careful thought to answering same.

I'd just love to ride down the road past Peterson's on your big sorrel mare (or I believe I'd like the gray better) with your stalwart figure striding gallantly in advance. I can just see you stepping high and lightly with your fresh-polished shoes shining in the sunshine, as you tried to miss stepping in the puddles. Really now that I have the picture so fresh in my mind I can't think of anything I'd like better (except riding in Jim Sparks' new cutter with him).

You were too rash though, Jack. You never asked if I wore a switch, or had false teeth, or even if I painted a tiny bit and powdered the end of my nose. Mianie did it!

I confess it sounds tempting to hear of those lovely things you bought, especially the mop and the washboard. I do so on a washboard when I see good man performing on it. But goodness me you forgot the soft soap and "Old Dutch Cleanser," and how you expect any woman to keep house without those life and labor savers. I don't know. As to prunes—too expensive—try dried apples.

By the way, did you ever consider how much it would take to keep a wife in talcum powder, face cream, hats and parasols for a year? It comes awfully expensive, I assure you. (I use all of those things.)

Now, although I cannot accept your proposal and become your slave—a mere slip of the pen, I meant wife—I will give you some advice. Get a tractor to help farm the 30 acres, a few calves to do the milking, and a monkey to amuse you, and you'll be just as happy, while you'll save more money. In short, you'd be set up for life.

Well, good-bye, Jack. Wish you luck. Oh, perhaps, you'd better not come Wednesday, as I expect to be busy. Give my love dad—"Madge."

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Suggests a New Plan of Attack
(THIRD PRIZE.)

WELLI Hello, Jack: You are the queerest last I ever dreamed you wanted to get married. So you bought a "lot of things"—if you're just buying a broom wouldn't you need a shovel first?

What's the looking glass for? To watch myself starving to death, on prunes? I don't care much for them. I maybe could eat the flour bread, too. Oh, Jack! I'm not scared on horse-back, but I'd rather go in a buggy to get married. Maybe you could "borrow" your mare, so I'd be sure how she'd feel about lending other things such as dishes for the threshers. I hurt my finger and I couldn't see rags for the sittin'-room carpet. What shall we sit upon? The carpet?

I don't like to marry you just to learn to milk, keep house and be good company. I'd want you to love me more than Minnie; so if you couldn't live without me if I did "nothing." Then I'd be "good" and you would be "sassy." Minnie's ring would make you think of her, and make me feel badly. Better sell it and buy some yeast cakes.

Now, Jack! I'll tell you just what I think. My education does keep me from being an up-to-date farmer, but you perhaps don't know what will make you that. I do. Subscribe for "Farm and Dairy." It'll fix up your so-so farm, put in the modern conveniences the farmer's wife expects, then Minnie will be sorry she went back on her own and perhaps wear the ring yet. Oh, yes, Jackie! Buy a buggy—I don't blame any girl for not caring about being "caddis" panned on horse-back, but you "riding" behind. You said the more you loved me, the more you thought about it the more you loved me. Please don't think about it then —you'll get Minnie yet. Good-bye. Good luck —Madam.

Protests "Jack Contest"

As a bachelor I beg leave to enter a mild protest against the "Jack Contest," which you are carrying on in Farm and Dairy. In the first place I wish to place on record my undying opposition to our friend "Jack" being held up as an example of the fraternity of bachelors. Jack is an impossible character—the product of some brain that thinks of bachelors in terms of cravats and white-knives—a species of animal once supposed to inhabit certain sections of America, now happily extinct. And were all bachelors as ridiculously foolish as "Jack" would appear to be, we would soon have no bachelors; they would be snuffed up as easy marks. Oh, it takes a clever man to snuff a bachelor these days and a wary one.

But the primary reason for my protest is not so much against an erroneous idea going forth as to the nature of bachelors, but rather that such good effort will probably be wasted on Jack's case by our girls. Effort that might be turned to better account on some real bachelor.

I can count among my acquaintances at least a dozen young bachelors—bright, unpretending fellows with more than a grain of sense and with good prospects who are bachelors simply because they have not met the right girl. Now among the girls who read Farm and Dairy you will doubtless have many who would make ideal mates for these bachelors. In this connection, however, I merely suggest the field of usefulness which lies at your hand awaiting cultivation.

But aside altogether from the management of a matrimonial bureau, how much better in choosing a subject for a contest to have your fair contributors write letters in which they will not be obliged to trudge up forced solutions for impossible situations. Have them write rather real letters in reply to a real bachelor's communication. This could be carried

on incognito on all sides and each contributor would get the opportunity of writing her real opinions—the only type of writing that really develops the writer. This is merely a suggestion from a mere man.—"Sam Ray."

COOK'S CORNER

Maple Sugar Recipes'

Now is the time of year when we like to try out maple sugar recipes, especially if we have a maple bush on our own farm. Even those of us who do not tap our trees will no doubt be able to secure a small supply of at least this delicious maple product. Herewith are a few recipes worth trying out:

Maple Sugar Sandwiches.

Cut and butter slices of white or brown bread, scrape maple sugar and spread thickly on the bread. These sandwiches go nicely with coffee.

Maple Pie.

A nice filling for a pie can be made from one egg, butter size of a walnut, one tablespoon flour and a cup of maple syrup.

Maple Sugar Sauce for Puddings. Heat over a slow fire in a small tea cup of water, one-half pint of maple sugar, let it simmer, removing all

scum. Add a quarter of a tablespoon of butter mixed with a level teaspoon flour and one teaspoon of grated nutmeg. Boil for a few minutes and serve with boiled puddings.

Maple Rice.

Boil rice in the usual manner until tender, then add a quarter cup of cream and half a cup of milk. Cook slowly until liquid is absorbed. Turn into a buttered pudding dish, pour a cup of maple syrup over the top and stand for about five minutes in the oven.

Maple Sugar Tea Biscuits.

Take one quart flour, one even teaspoon salt, three teaspoons baking powder, one large tablespoon butter. To make a very soft dough, sift flour, salt and baking powder together, work in butter and add milk. Pat well with the rolling pin, then spread with maple sugar, roll up like jellyroll and cut the biscuits from the end, bake and serve hot, eating with butter.

Meatless and Wheatless Suggestions

When one commences to think just what they can prepare for a meal which will constitute a meat or wheat substitute, it is not always easy to bring them to mind. In the first place, we might jot down some of the meat substitutes such as poultry, fish, eggs, cheese dishes, baked beans, bean loaf, nut loaf, bean

scum, milk soup and other soups, as well as various dishes in which milk forms the basic principle. Some substitutes for wheat bread are corn bread, brown bread, oatcakes, buckwheat cakes, potato biscuit, rye bread, potatoes, rice, etc.

Below we give a few suggested menus planned by the Home Economics experts of the New York State College of Agriculture. There may be ideas in these menus which will appeal to Our Women Folks and they can be added to or changed about as desired. We are just publishing them as suggestions:

Cream of tomato soup; graham bread; apple sauce.

Toasted cheese sandwiches; orange and onion salad.

Mashed potato; scalloped tomato; corn bread; baked caramel custard.

Scalloped potatoes; buttered beets; oatmeal pudding; cottage cheese served with jelly.

Baked sweet potatoes; scalloped cabbage; oatmeal bread; baked rice pudding with raisins.

Boiled potatoes served in cream sauce; baked winter squash; rye bread; junket served with stewed fruit.

Cheese pudding, baked apples and molasses cookies.

Cheese soufflé; apple and onion salad; corn bread; date graham pudding.

Creamed codfish; baked potatoes; sliced onions; Johnny cake.

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The Outlook for Canadian Dairying

(Continued from page 16.)

cows are expected to stand around an old straw stack in snow and cold rain, or housed in an old stable that is not comfortable, and then be expected to furnish milk profitably. Our dairymen realize the most potent influence, in the building up of this magnificent nation in history, is the cow; consequently she is treated with more respect than ever before. As she helped to develop the prairies from the wilderness, and ate of its fruits, so will she renew the life of the soil and give us still greater Manitoba, and all agricultural occupations more delightful and profitable, as she furnishes the cheapest food that money can buy.

British Columbia Dairying

T. A. F. Wiancko, Provincial Dairy Inspector.

THE progress made in British Columbia dairying during the year 1917, while not great, has been fairly satisfactory. The high prices for milk feeds which prevailed throughout the year took a large portion of the dairy farmer's receipts, and had it not been for the somewhat higher prices received for butterfat, it would have been impossible to carry on at a profit.

The labor problem has been a very serious one indeed, owing to heavy enlistment for military purposes from the agricultural population. However, the rapid development in the efficiency of the modern milking machine is becoming an important factor in reducing operating expenses connected with the industry throughout the province. A great many machines have been installed during the past year, and these are giving such good satisfaction generally that their numbers are sure to materially increase during the current year. Machines of nearly every kind are in use in the Province and all seem to be giving good satisfaction when properly handled and cared for. Many users are convinced that the machine does to better work than the average hand milker, as the cows are milked at the same speed and pressure at every milking. The machine does not get tired, and success with it seems to be measured in exact proportion to the amount of brains used in its operation and handling.

The following is a comparative statement showing the quantity of dairy products produced in the Province in 1917 compared with the previous year:

| | 1917. | 1916. |
|-------------------------------------|------------------|---------------------------|
| Butter | 1,859,474 lbs. | \$ 812,763 1,811,392 lbs. |
| Cheese | 45,400 | 13,029 18,000 |
| Milk, fresh | 11,829,450 gals. | 4,054,510 9,115,500 gals. |
| Ice Cream and Evaporated, incl'd .. | 4,878,293 | 3,285,293 |

From the above statement it will be seen that the production of fresh milk, consumed as such and used in the manufacture of ice cream and evaporated milk, shows a very substantial increase during the year 1917, while the increase in butter production is small. This is accounted for by the fact that the manufacture of evaporated milk has increased very greatly and that this increase was largely at the expense of butter production. In the Lower Fraser Valley and in Comox District on Vancouver Island milk that formerly went into the manufacture of butter has now been diverted to the manufacture of evaporated milk, owing to the higher prices which now prevail for that product. It is estimated that sufficient butterfat for the production of one and a quarter million lbs. of butter was used in the manufacture of evaporated milk during the past year.

The progress made in testing dairy cattle for bovine tuberculosis during the year has been highly satisfactory. About sixteen thousand tests were made, resulting in 24% of reactors being found. This figures out to the smallest percentage of reactors in proportion to the number of cattle

tested since the work began. In 1913 when compulsory testing was first begun, the percentage of reactors was slightly over 15%. Comparing these figures shows a most rapid decline. The number of reactors and indicates that this dread disease is being held well in check and rapidly disappearing from our dairy herds.

The Dairies Regulation Act which came into force last year provides that every creamery or dairy or other milk handling establishment of any kind accepting and dealing in or paying for milk or cream on the basis of the amount of butterfat contained therein, must be licensed and have in its employ a properly qualified milk tester. In sitting up the law during the few months it has been in operation, it is reasonable to believe that its judicious prosecution is resulting in the unification of the several dairy interests of the Province into closer and more cordial relationship, and in placing the industry on a more permanent footing through the establishment of confidence between the producer and purchaser.

The outlook for 1918, while not particularly promising, owing to labor conditions, does not, however, present difficulties that cannot be properly managed and foretold to be overcome. The problem of an adequate supply of milk feeds is one that is causing serious concern and may have a serious effect upon increased production. The more progressive dairyman, however, is figuring ahead, and believes that he must provide feeds suitable for economical milk production, even if milk feeds be largely out of the question, and these men are preparing to grow more largely such crops as clover, peas, and vetch, which yield a large tonnage of cheap, succulent foods when properly stored in silos.

Silos have increased in number very rapidly during the past year or two and by present indications this year will see silos on many farms where they were not even thought of several years ago. The silo appears to be a solution of the labor problem also, in that clover and peas and other silage will largely take the place of roots and corn silage, which involve much greater expense in growing and harvesting.

The local market for dairy products is scarcely excelled by any country, and as a consequence prices are quite satisfactory. The importations of but-

1917. Value. lbs. 1916. Value. lbs.
\$ 812,763 1,811,392 lbs. \$ 696,116 1,811,392 lbs.
13,029 18,000 3,560
4,054,510 9,115,500 gals. 3,551,780 9,115,500 gals.
4,878,293 3,285,293

ter and cheese have in the past years run into the millions of dollars. Even with greatly increased production an ever widening market is assured so long as quality is maintained. Because of the fact that the dairy cow is capable of making the most economical use of foods, in themselves unutilizable for human consumption, we believe that the future for the dairy industry in this Province is very promising and that our future type of farming will be largely dairying.

The Outlook in Saskatchewan

F. M. Logan, Dairy Commissioner.

THE unusual price of grains has probably been the biggest factor affecting the dairy industry during the past few months. With oats selling from 80c to \$1 a bushel, and with wheat at \$2.30, and barley from \$1.10 to \$2, it could hardly be expected that a large quantity of grain would be fed to milking cows. As grains in recent years have been grown in abundance, they were usually fed in considerable quantities to milking stock, and the farmers have not yet provided a substitute, with the result that the winter supply of milk has

been reduced, were dried off, which should be

The high price prevailed during the year has also dairying. It has in these weeks desirable help, as that the milking more complicated in obtaining increases. We are contemplating running with the thought to make up the amount to pasture, which all parts of the summer months. That the high price be obtainable summer will r production close year. The year's quantity increase over that of previous held its own, and under the conditions of the coming year very n direction.

The high price of milk has all breeds, and to say that the total gain in the Saskatchewan for three years, however, has the best breeds of milk cows in the world each year.

The labor p with dairying farm. Experiment are needed in the though it is a point to state on to a decision right. The efficient v poorer quality co strenuous times he will have to efficient substitutes go back to none labor, I expect the province ad

How to HEEN there W two year weigh intri this continent I could have fore immense part play in feeding; by 80 years feeding of England took the potato as a famine in Scotland into extensive no of food. Another Prussia taking n W. Macoun's list, briefly e hundred-page b by the Departm laws in which the and comprehen the cultivation of Mr. Macoun g best, dealing w the soil, of the manner a of protection a diseases, of the districts best v varieties, of the taken during gro storing and ship the given of th men and testin mental Farms as the Dominion, everything in th that is of value, with every exact tions, is to b tin that can be the Publications of Agriculture, of

been reduced, as a good many cows were dried off during the winter which should have been milking.

The high price of labor which has prevailed during the past two or three years has also had its effect upon dairying. It has always been difficult in these western provinces to obtain a fair help for milking cows, and desirable that the labor problem is becoming more complicated every day, the difficulty in obtaining suitable milkers increases. We hear of a few farmers who contemplate letting the calves run with the cows, but I do not anticipate that these will be numerous enough to materially affect the output.

With an abundant supply of good pasture, which is obtainable in almost all parts of the province during the summer months, I am of the opinion that the high price which will probably be obtainable for butter during the summer will result in keeping up production close to that of recent years. The year 1916 showed a substantial increase of dairy products over that of previous year, 1917 about held its own, and unless something unforeseen seriously affects production in the coming season, I do not anticipate very much change in either direction.

The high prices prevailing for live stock have stimulated an increase in all breeds, and I think it is quite safe to say that there has been a substantial gain in the number of cows in Saskatchewan during the past two or three years. The larger increase, however, has probably been among the beef breeds, although the number of milch cows is undoubtedly increasing each year.

The labor problem in connection with dairying does not end at the farm. Experienced and suitable men are needed at the factories, and although it is a little early in the season to state definitely, indications point to a decided shortage in the right class of men. This will mean less efficient work and probably a poorer quality of butter, but in these strenuous times employees of labor will have to be satisfied with less efficient assistance. When conditions get back to normal, which will mean no doubt lower grain prices and more labor, I expect to see dairying in this province advance rapidly.

How to Grow Potatoes

WHEN three hundred and thirty-two years ago Sir Walter Raleigh introduced the potato from this continent into Ireland, nobody could have foreseen or imagined the immense part that it would come to play in feeding the world. It was nearly 80 years before the Royal Society of England took up the cultivation of the potato as a cheap food in case of famine. In another eighty years famine in Scotland brought the potato into extensive notice as a cheap article of food. Another thirty years saw France taking notice of its value. Mr. W. T. Macoun, the Dominion Horticulturist, briefly explains all this in a hundred-page bulletin recently issued by the Department of Agriculture, Ottawa, in which is also given complete and comprehensive information as to the cultivation of the potato.

Mr. Macoun goes fully into his subject, dealing with the preparation of the soil, of the varieties of seedlings, of the manner and method of planting, of protection against insect pests and diseases, of the time to plant, of the districts best suited to the different varieties, of the care that should be taken during growth, and of garnering, storing and shipping. Particulars are also given of the results of experiments and tests made at the Experimental Farms and Stations throughout the Dominion. In short, pretty well everything in the shape of information that is of value to potato growers, with many exact and interesting illustrations, is to be found in this bulletin that can be had free on addressing the Publications Branch, Department of Agriculture, Ottawa.

Sweet Clover Experience

I SEEDED my first sweet clover in the spring of 1915," remarked Mr. Samuel Armstrong, of Peterboro county, when he dropped in recently for a chat with the editors of Farm and Dairy. "The next year we cut a great crop of sweet clover hay. It must have run four tons to the acre. There were 16 loads and it weighs heavy. When I cut that crop I tilted the mower bar as high as it would go, but did not put on shoes. I had been told that sweet clover would give two crops in the season, and about 10 days after cutting I went out to look for the second growth. The stubble was brown and hard and bare. There was no second growth. I had killed the field completely. That year I seeded down another six acres. The crop was cut on June 28th last spring. It must have rained on the clover for three weeks before we finally got it into the barn. All the leaves had dropped off, and when we started to feed it to the cows it was anything but desirable looking stuff."

"And they eat it?"

"Eat it up clean," Mr. Armstrong assured us. "We had been feeding good clover and timothy before that, and if anything the cows have gone

up on their milk on that badly weathered sweet clover."
 "How heavily did you seed?"
 "We used 15 lbs. of white sweet clover seed to the acre. Where not

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PLEASE MENTION FARM AND DAIRY

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(Continued from page 7.)

to relieve it right from the start.

The Manufacturing End. The profits from this farm, however, do not come from the large crops as such, but from the finished product in the form of milk. Mr. Allison milks 15 cows and aims at from five to five and one-half cans of milk a day the year round. While it is 14 years since Mr. Allison bought his first pure bred he has since had some grades on hand, because in shipping milk to Montreal it has been necessary to have cows freshen at different times in the year and he does not like to have his pure breeds freshen at certain seasons. As the main profit from the farm is from the sale of milk, Mr. Allison has never decided that it was wise to get rid of a good milker just because she was a grade. Now, however, that he is shipping to the condensery at Chesherville and consequently is not under contract to keep his milk supply uniform the year round, he is planning to sell off the grades he has in his stable and replace these with some breedly young purebred stuff that is coming along.

Mr. Allison's efforts in the breeding arena have not always met with the success for which he must have hoped. For a long time after he started into pure breeds he was so unfortunate as to have a preponderance of bull calves. However, he has always made it a rule to keep animals with good breeding and the stuff he has had for sale has always sold well

and helped out in the farm's returns. It is quite a while since Mr. Allison first decided that on a small farm where most of the concentrates are bought, it is necessary to have quality in stock rather than quantity.

The foundation of the pure bred herd was laid 14 years ago when Mr. Allison bought a couple of Holstein heifers from the Honey herd. In building up to what he has now, much credit may be given to one of the herd sires he had in his stables. This was Sir Alta Posch Beets, the sire of Inka Sylvia Beets Posch and therefore grandsire of May Echo Sylvia. One of the daughters which Mr. Allison got from this sire was Alta Posch Beets Maid with a R. O. P. record at two years old of 13,476 lbs. milk and 598 lbs. butter. She died from black leg, however, when only three years old, leaving one daughter, Alta Posch Segis, sired by Sir Lyons Segis, the herd sire of the Allison Stock Farm. She has a seven-day record at two years and 10 months of 580 lbs. milk and 337 lbs. butter. Mr. Allison has had an offer of \$800 for this heifer on several hands, but has refused. He now has a nice heifer calf from her by Riverdale Lyons Echo Posch, a 33-b. bull from Sir Lyons Segis, and he refused \$200 for this calf when born.

Another of the good cows in the herd is Netherland Queen Clara. She is a good milker and has freshened every year, thus fulfilling the two requirements necessary for any cow

that wants to stay on the farm. As a four-year-old she made 14,482 lbs. milk and 708 lbs. butter on an ordinary feed, and being milked but twice a day. These are just a few examples which show the type of stuff Mr. Allison is breeding. While his milk cheques are looked upon as his income, yet the occasional sale of pure bred stock from his herd always helps to offset the high cost of living of which we hear so much these days.

Mrs. Allison and the Poultry.

The milk shipping type of dairy farming is not conducive to many side-lives, but one side-line which this farm has been found very profitable. This is poultry keeping, and this department of the farm is very capably provided for by Mrs. Allison. Although but 120 laying hens are at present on the farm because of the high price of feed and the difficulty experienced in getting corn this winter, it is Mrs. Allison's plan to keep 150 to 200 hens. She has a strain of hens kept on the farm are bred to the Barred Rocks. In the cold climate of Western Ontario Mrs. Allison considers the best way to keep up the virility of the flock by buying a couple of new settings of eggs each spring either from the agricultural college at Guelph or Macdonald College. By alternating in her buying, the chickens are not related to the breeding hens.

All the eggs produced on the farm during the past five years have been shipped to the Ottawa market in Montreal, except those reserved for sale as settings in the spring. Through careful feeding a goodly supply of eggs is obtained through January and February, when the prices are high. Two years ago Mrs. Allison kept track of everything sold, and found that they had sold in one year from 150 hens \$750 worth of eggs and meat birds.

Yes, the 55-acre farm of Farslane Allison is a good one. It is situated in the midst of a fine dairy district and is but a mile and a half from the station and the large milk condensery at Chesherville. The buildings are well planned and kept in good repair. Ample supplies of strawberries and the small bush-fruits are grown in the garden near the house, and lawns and yards have that well kept appearance which can often be found associated with small farms.

And the hospitality of the home as well as the up-to-date fittings found inside the house, will all promise comfort which the visitor gets on setting eyes on the farm. The house is built so that the kitchen and large living room get all the light and sun possible. The kitchen has a built-in kitchen cabinet and a sink supplied with hot and cold water always on tap. Upstairs is a completely furnished bathroom which, finished as it is in white, will compare favorably with the bath in any of the city homes. The home is well supplied with reading matter, two daily papers, several farm magazines and a couple of magazines of general interest being subscribed for each year, while a well stocked bookcase and a player piano in the living room show that the intellectual and social sides of life are receiving their fair share of attention in the Allison home.

In his district Mr. Allison is known as a good dairy farmer. His fields are fertile, his crops are good, his surplus stock sells well, and though the acreage of his farm is not large, the receipts from it would compare favorably with many of our more extensive farms. On the other hand, he has an advantage over the larger farmer when it comes to paying for his labor, as well as in the item of capital tied up in land. So one would almost be inclined to think that his net profits must be fairly satisfactory. And after all, it is ultimate profits rather than gross incomes which decide whether or not a farmer can enjoy life as he should.

Meeting Larger Markets

For years after the war, Europe will continue to require all the butter Canada can produce for export. With markets assured, farmers and dairymen demand a cream separator that meets increasing demands without expense and delays of changing machines in order to get larger capacity; (2) that will get the greatest possible amount of first quality cream. A machine that meets both requirements is the

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\$2.00 per page, complete, including making out of pedigrees.
Orders should be sent in early.
The Canadian Holstein Sales Co.,
514 Adelaide St. W.,
Toronto, Ont.
Belt Phone 130.

A REAL BARGAIN
Young Parthenon Station for sale—seven months old, dark gray with star. From imported sire and Dam. He is of a good size, active and a fine type. He is well worth the money. Correspondence invited or come and see him; he ought to please you. Address—
ALLAN WINGER, Stevensville, Ont.

For MILK, BUTTER, CHEESE, VEAL
Holstein cows stand supreme. If you try just one animal you will very soon want more. Write the HOLSTEIN FARMERS ASSOCIATION.
W. A. CLEMENS, Sec.,
St. George, Ontario

LUMP JAW
The only cow ever to be cured of this disease. Write for the only cure. Write for the only cure. Write for the only cure.
Lump Jaw Remedy
100 Dufferin St., Toronto, Ont.



For Sale--
Jersey cattle, bred in the purple. Imported and Canadian bred Clydesdales.
Also, two large farms, w th modern buildings.

BALDWIN'S REGISTERED, Coaticook, Que.

BOOKS
Write for our catalogue of farm books. It is sent free on request. Ask us for information on any books you require.
BOOK DEPT., FARM AND DAIRY
PETERBORO, ONT.

Well Satisfied with Dairying
EDITOR Farm and Dairy—I used to be a cattle feeder until four years ago, when I turned my attention to dairying, and so far, I have found it more of a financial success than fattening cattle.
It was indeed a surprise to me when Mr. Frank Herms informed me that I had secured first award in the creamery patrons' competition of the Western Ontario Dairywomen's Association Herds Competition. Our entering buttermaker, Mr. A. Bauer, was instrumental in getting me to enter the competition. He told me in September that any herd had the best record per cow of any herd in the Dundee creamery, and urged me to put in my entry. I took another month's time to consider the question, and then decided to put in an entry.

My herd consists of Shorthorn and Holstein grades, being pretty well divided. Five out of the 16 had their first calf, and two freshened the second time. My cows are tested, and they do not come up to a certain standard of milk production and quality of milk, I weed them out and buy others. I try, however, to raise most of my own cows.

It is impossible for me to give correct figures as I did not keep records. I remodelled my stabling, set out the front wall, and put in stanchions, and with the security of help it kept me busy. I have the records of the creamery for the butter cheques and the butter used by two families, including boarding of workmen while remodeling stable, threshing and silo filling, also the cream used by two families and skim milk. The calves got fresh milk from the cows. We have an itemised list of income received during 1917 from our dairy work which I am sending along, and it is as follows:
11,209 lbs. of cream at creamery, value as per butter cheques \$1307.93
298 lbs. butter for two fam. 121.18
10c at 41 cts. 121.18
19 gallons cream for domestic use 32.30
Amount of milk used to raise 14 calves, estimated as equal to 151.3 lbs. butter fat at rate of 4 lbs. per cwt., at 41 cts. 61.99
111,000 lbs. skim milk, at 25 cts. a cwt. 44.43
14 calves at \$8 after birth 112.00
Total \$1679.83

I know there are farmers who make more money direct than I do, but indirectly the calves and adult quite a value to my herd, and since I have a lot of skim milk I can raise hogs profitably. I took in more money through hogs than from my cows.—
Allen C. Hallman, Waterloo Co., Ont.

A Calf Meal
EDITOR, Farm and Dairy—We have tried in this neighborhood a recipe for raising calves without whole milk, and have found that they do just as well as on whole milk. The recipe was given me by a milk inspector in Michigan. The recipe is as follows:
One-half pound Jimson.
One-half pound salt.
One pound brown sugar.
Two pounds flax seed meal.
Three pounds ground oat meal.
We generally mix up about one quart in cold weather, and one pint in warm weather, this being cooked into a gruel, giving about a tablespoon at the start and increasing to three.—
Chas. C. Moore, Essex Co., Ont.

Selection of seed is an important point this year when labor is high in price. Get the best of good plump seed and of a variety that you know will do well in your locality.

THE FARMERS SEEDSMAN SEEDS FIFTY-TWO YEARS SERVICE
1866 1918
TAKE THE WARNING
In view of the shortage of seeds the Government is warning farmers to lose no time in ordering their seeds; also to buy carefully selected seeds only. Send us your order at once. If you have not received a copy of our catalogue, write to-day for it. We pay railway freight to all parts of Ontario and Quebec on orders of \$25 or more.
CORN.
No. 2 Ashike, No. 1 for purity 15.50
Sweet Clover, White Blossom 16.00
No. 2, almost No. 1 for purity 25.00
No. 1 Timothy, extra No. 1 for purity 6.25
No. 2 Timothy, extra No. 1 for purity 5.75
No. 2 Timothy, No. 1 for purity 5.25
Kentucky Blue Grass, 2 lb. lb. Marquis Spring Wheat (Ontario Crown) 3.00
O. A. C. 21 Barley 1.45
O. A. C. 72 Oats 2.05
O. A. C. Barley, reg. 1.45
American Banner 2.10
Emmer 1.50
Amber Sugar Corn, 1 lb. 1.11
We are in the market for O. A. C. No. 3 Oats, Silver Hulled Buckwheat, Seed samples.
Bags for Clover and Timothy, 45c extra. Bags for Grain free.

GEO. KEITH & SONS SEEDS 124 KING ST. E. TORONTO

Where Are Your Men At 4.30 P. M.? IN the Busy Season On The Land or Milking Cows? \$260⁰⁰ Buys A 3 Unit HINMAN MILKER

Complete Without Power for 20 Cows in 2 Rows, Enabling One Man to Milk 20 to 25 Cows per Hour. 1/3 Horse Power Motor will Operate the Outfit, Thus Leaving 2 MEN and 2 Teams at Least 2 hours Extra Each day on the LAND.

At the Same Time Reducing the Cost of Milking By Wages of 2 Men.

Date _____
How Many Cows have You? _____
In How Many Rows? _____
Distance of Rows Apart in feet? _____
Diameter & Speed of Pulley on Engine? _____
Sign Your Name _____
Address _____
TEAR OUT! MAIL TO US! WE'LL GIVE YOU A PRICE THAT WILL SURPRISE YOU.
H. F. Bailey & Son, Galt, Ont.
The Largest Exclusive Milking Machine Manufacturers in Canada
1. & D.

FEEDERS CORNER

Conducted by E. S. Archibald.

Buying Feeds in Advance

HOW long in advance is it advisable to buy dairy feeds from the standpoint of the keeping qualities of the feed? Those that have particularly in mind are dried brewers' grains, bran, oatmeal, all cake and molasses. Would any of these feeds depreciate, say, in 12 months after purchase?—C. L. Oxford Co., Ont.

Undoubtedly the correct time to buy necessary milfeeds is during the summer months, when regular transportation is a certainty and when the available supply usually to a certain extent exceeds the demand. There is nothing to fear from the purchase of any milfeeds for dairy in summer, for all these feeds, if properly stored, can be kept until the following spring without any material depreciation. All kiln-dried feeds, particularly bran, shorts, brewers' grain, distillers' grains and the like should keep almost indefinitely, providing they are piled in such a way as to allow a reasonable circulation of air. If, however, there appears to be any disposition towards heating, the pile should be rearranged accordingly. This, however, is very rare. Any milfeeds which contain a reasonable amount of oil, molasses, etc., should undoubtedly keep for 12 months or more. However, there will be an ap-

preciable, nor as nutritious, pound for pound, as corn made from earlier maturing varieties of the north. Undoubtedly there is a difference in the actual chemical content in favor of the northern varieties. Generally speaking, the immature corn contains a slightly higher percentage of protein and much lower percentage of carbohydrates and fats. The percentage of digestibility is at least 10 per cent greater in the case of the earlier maturing varieties. Hence, the selection of milfeeds to balance the silage ration might be slightly influenced by the varieties of corn raised, as probably more of the starchy grains, such as corn, might be required. However, I would judge that considerably more meal would be required to balance a ration made from immature corn, and that this would be a more important consideration than the choice of meals. Considering that a few Canadian seedsmen are advertising varieties commonly grown and matured in the north, I would advise the Dundas County dairymen to obtain this seed if at all possible.—E. S. A.

Self-Feeders for Hogs

WE have a small two and one-half acre field in clover near the barn. How many hogs would this field pasture for the season? We would plan to use self-feeders. What grain ration should we keep before them?—G. M., Oxford Co., Ont.

A good field of clover, two and one-

More Crops with Less Labor.

AMERICAN farmers are confronted with the most difficult problem which they have ever been called upon to meet—the necessity of increasing farm production with an ever decreasing supply of farm labor. To solve this problem, agriculturists have proposed a number of plans, some of the more important of which are as follows:

1. The use of more farm power by replacing or supplementing horses with farm tractors, thus increasing the productive capacity of man-labor, making possible the farming of larger acreages and increasing plowing more timely and a better quality of farm work, which should result in increased yields.
2. The use of labor-saving and larger farm machines for tilling the soil and sowing and handling the crop, which should likewise result in greater achievement with the same or less man-labor.
3. The use of all available farm manure supplemented when necessary with proper commercial fertilizers in order to increase the productive power of the land, and thus give larger yields and greater returns for the labor expended.
4. The planting of well-bred seed of adapted varieties of corn and other grain, and the testing of the germination of seed corn and other seeds in order to insure better stands and larger yields.
5. A more careful organization of the farming business with reference to live stock raising, cropping plans, soil fertilization, the most economical use of available labor, machinery and power which the farm affords, and the securing of necessary working capital to purchase essential equipment and supplies.
6. Greater cooperation among farmers in each farming community in regard to exchange of farm labor and farm power and greater cooperation of farmers with other interested agencies and with the Government in utilizing the information and other assistance which such agencies are gladly offering to give.

preciable decrease in weight. This applies to such feeds as blood meal, all cake, cottonseed, etc. There is no doubt that the storage of any of the above meals for over 12 months or more will, to a certain extent, affect their palatability and, consequently, their actual value in feeding. However, from the experience of the best feeders, one is safe in saying that there is no danger from depreciation of feeds when stored six to ten months in advance.—E. S. A.

Mammoth Corn for Seed

INTERESTING by Farm and Dairy that we will be able to buy Mammoth southern seed corn to plant for our silos this summer. Just as in any ordinary season, how will this compare, say, with Wisconsin in feeding value? What variations will this make in our grain ration when feeding the less matured silage? We buy our concentrates early in the season, so I would like to know in good time if any change need be made.—Dairyman, Oxford Co., Ont.

Our best authorities on corn for silage agree that ensilage made from the coarse, late maturing mammoth southern varieties is neither as sweet,

half acres in size, will, with the addition of self-feeders, provide sufficient pasture for 100 to 125 sows born in the spring or early summer, or it would provide ample pasture for 12 sows and litters fed in the same way, but excluding the sows from the self-feeders. A very good ration in the self-feeder for young pigs on pasture would be two parts each of ground oats or barley and wheat middlings with the addition of one part ground corn. This is an excellent growing ration, but as the animals reach sufficient weight to finish the corn may be materially increased. An additional feed daily of three to five lbs. of skim-milk per hog, especially during the first three months, will save a large amount of grain. Every care should be taken to provide good shelter for these pigs on pasture.—E. S. A.

Brown has a lovely baby girl. The stock left her with a butter; Brown named her "Oleomargarine." For he hadn't any but her.

RENNIE'S SEEDS Produce the best

DON'T be half hearted about working your war garden—make it a big success—for all available land must produce food this year or somebody goes hungry. Rennie's seeds will help you raise big crops—their high standard of quality and dependability adapts them for the war garden.

Follow The Stars

Who persons follow the stars in a Rennie 1914 catalogue; for the stars point out exceptional seed bargains. Look for them and examine carefully the times they mark. You'll be sure to find at the special offers.

| | | | | | |
|-------------------------------------|------|------|-------|------|--------|
| BEANS—Rennie's Stringless | Pkt. | oz. | 3 lb. | lb. | 5 lbs. |
| Green Pod | ..10 | ..18 | ..55 | 2.50 | |
| BEEF—Rennie's Spinach Beet | ..10 | ..25 | 1.00 | 3.00 | |
| CABBAGE—Rennie's Worldbeater | ..10 | ..75 | 2.25 | .. | |
| CARROT—Rennie's Market Garden | ..10 | ..40 | 1.20 | 3.50 | |
| CORN—Rennie's Golden Bantam | ..10 | ..25 | .. | .. | |
| CUCUMBER—White Wonder | ..10 | ..30 | .. | .. | |
| LETTUCE—Rennie's Selected Nonpareil | ..05 | ..30 | .. | .. | 2.75 |
| MUSKMELOON—Delicious Gold Lined | ..10 | ..40 | 1.20 | 3.50 | |
| PARSLEY—Champion Moss Curled | ..05 | ..25 | .. | .. | 2.25 |
| PEAS—Little Marvel | ..10 | ..10 | .. | .. | 4.50 |
| Improved Stratagem | ..10 | ..15 | .. | .. | 4.50 |
| RADISH—Cooper's Sparkler | ..05 | ..20 | .. | .. | 2.25 |
| TOMATO—Bonny Best | ..10 | ..60 | 1.75 | .. | .. |
| Early Detroit | ..10 | ..50 | 1.75 | .. | .. |
| TURNIP—Golden Ball (Orange) Jelly | ..05 | ..25 | .. | .. | 2.50 |

| | |
|----------------------------------|-----------------------|
| Prepaid | Non Prepaid |
| lb. 5 lbs. lb. 5 lbs. | lb. 5 lbs. lb. 5 lbs. |
| ONION SETS—Yellow Sets—Selected. | ..35 1.70 ..26 1.20 |

FLOWER SEEDS

| | | |
|--|------|------|
| Lavender Gem Aster | ..15 | Pkt. |
| Early Blooming Cosmos—Mixed | ..10 | .. |
| Giant Yellow Tulip Poppy—California | ..10 | .. |
| New Red Sunflower | ..10 | .. |
| Rennie's XXX Mammoth Flowering Hollyhock—Mixture | ..20 | .. |
| Mastodon Fanny—Mixture | ..25 | .. |
| Rennie's XXX Select Shirley Mixture—Single | ..10 | .. |

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

THE WILLIAM RENNIE COMPANY
KING & MARKET STS TORONTO
ALSO AT MONTREAL WINNIPEG VANCOUVER

DON'T ADVERTISE IN FARM AND DAIRY Unless You Actually Want to Sell

Farm and Dairy, Peterboro, Ontario.

Dear Sirs—

In regard to results obtained from advertising in your valuable paper, we are glad to say we have been completely swamped with enquiries for cattle and have disposed of all the cows advertised, and a few more, at splendid prices, proving that Farm and Dairy, in all it claims to be as an advertising medium.

Wishing you continued success,

Yours truly,
(Sgd.) ROSIE McDONALD,
Elmfort Stock Farm.

We have equally good results in store for scores of our other breeders of good dairy cattle. If you have something choice to offer, do not hesitate to make use of the good services of Farm and Dairy in finding your buyers. You will be surprised at the results we can secure for you. Write us your advertisement or give us the facts and we will arrange a neat ad. for you.

C. G. McKILLICAN
Live Stock Dept. FARM & DAIRY, Peterboro, Ont.

Deal with Farm and Dairy Advertiser

A National Live Stock Council

CANADIAN Live Stock interests made an important forward stride when at a meeting held in the Carle-Rite hotel, Toronto, on April 9th, an organization was formed which will be known as the Canadian National Live Stock Council. For some time it has been felt by live stock men that the industry will not be on a firm footing until some central organization was formed which would voice the wishes of the live stock men of Canada, when matters affecting their interests were being dealt with. So at the live stock meetings held during the past winter the various associations have discussed the formation of some such central organization, and this led to the meeting of last week when the Council was actually organized. The meeting was presided over by Wm. Smith, M.P., of Columbus, Ontario, one of Canada's best known stock men, and J. W. Bram, accountant of the National Live Records, acted as Secretary. While the meeting was not very large, it was representative, practically every live stock association in Canada being represented either by a delegate or by a written expression of their opinion on the matter.

After the meeting had decided that such a Council should be organized, the question of representation came up. Considerable discussion took place on this subject, but it was finally decided that the Council would be made up of 11 members, to be elected as follows: five members to be chosen by the Western Canada Live Stock Union, three to be chosen by the Eastern Canada Live Stock Union; two by the Records Committee and in addition the chairman of the Records Committee will also act as chairman of the new Live Stock Council.

The Canadian National Live Stock Council will be the ultimate tribunal in all live stock matters. It will be to the various associations what the Canadian Manufacturers Association is to its component organizations. The Council will deal with such matters as: Railway rates and regulations, railway and steam-boat transportation, import and export regulations, marketing of live stock and other products, including wool, advice to the Dominion Minister of Agriculture in all matters pertaining to his department, farm labor, Dominion legislation in any way affecting agriculture, including grants and appropriations of public money, and other matters pertaining to agriculture from a Dominion wide standpoint.

Authority was given the Records Committee to draft a constitution. Before breaking up the meeting the following resolution was passed: "Resolved that this meeting go on record as being strongly opposed to any reductions in grants to farms, or to the abandonment of farms at this time."

Canadian Flax for Aeroplanes

WORD has been received at Ottawa that Colonel Wayland of the Canadian Expeditionary Forces has been requested by the War Office to immediately proceed to Canada to supervise the distribution of fiber flax seed which it is anticipated will be urgently required in order to supply the manufacturing needs for aeroplanes in the near future.

As the importance of these supplies cannot be exaggerated, it is exceedingly desirable that there shall be cordial cooperation between the farmers who will sow this special flax seed and Colonel Wayland, who will distribute the seed to the towns. Colonel Wayland has been empowered to offer suitable terms to farmers sowing this seed. He is proceeding to

Canada at an early date and in the meantime enquiries may be addressed to him, c/o Grain Exchange, Winnipeg.

THE BENDER HOLSTEIN SALE.

At the dispersal sale of Holsteins, held by Mr. Jacob S. Bender, Tavistock, on March 15th, the total receipts were \$4,237. The highest price realized was \$435 for Bonnie Lyons Colanibia, going to John Morgenroth, Tavistock. Other animals which sold for 1400 or over are as follows: Vesman Beauty Queen, 3185; Allan Bean, Maplewood; Home Farm Katie Lyons, 3130; Wm. Stock, Tavistock; May Hengerveld Veeman, 3119; Wm. Stock, Basiss Lyons Colanibia, 3180; J. C. Kaufman, Tavistock; Home Farm Minnie Lyons, 3200; Jesse Looker, Mitchell; Lilly Colanibia Veeman, 3132.50; Wesley Hengerveld, Tavistock; Bonnie Lyons Colanibia, 3190; H. Purcell, Listowel; Belle Lyons Colanibia, 3170; A. C. Hallman, Breslau; Home Farm Annie DeWitt, 3120; Allan Bean; Home Farm Pearl DeWitt, 3186; Jesse Looker; Fatty Colanibia, 3101; 1175; Jacob Mogg, Tavistock; Home Farm Queen Hengerveld, 3115; H. F. Eberhart, Copetown; Home Farm Lydia Hengerveld, 3119; Walter Hetsch, Home Farm Co. 3119; Grace and Pansie Lyons, 3146; Bert Leussler, Bright; Home Farm May Lyons, 3150; Wm. Stock; Jenny Lyons Abbecker, 3117.50; Jesse Looker; Lilly Lyons Hengerveld, 3125; Wm. Stock; Home Farm

Daisy Lyons, 3120; Fred Stock, Tavistock; Kenneth King Colanibia, 3106; John Masters, Beachville; Colanibia Hengerveld Lyons, 3135; Wm. Kaufman.

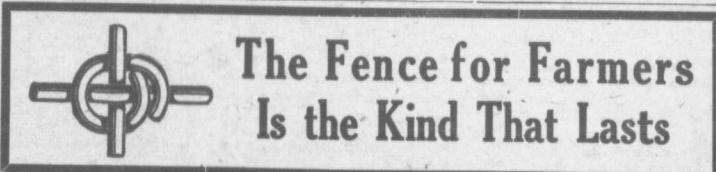
THE WASHINGTON SALE.

A GOODLY crowd of buyers were present at the complete dispersion of N. S. Washington, held at Holla on Tuesday, April 2. The ideal weather was certainly in favor of the sale. The sixteen head of Holsteins were in good condition and their owner had evidently taken pains to see that the animals appeared at their best. The sixteen head brought \$2,440, an average of 152 1/2 each. The highest price paid by S. A. Northcoote, of Taunton, was \$475 for a mature cow, Lady Aaggie Johanna. Taken all over the prices were good and considering that none of the animals had been tested the owner had good reason to be satisfied with the prices received. The animals selling for \$100 and over are given herewith: King Segis Count De Kol (hard sire), 3183; D. R. McLeann, Lancaster; Clintonia Harlow De Kol 3rd, 3180; A. Stanton, Solina; Lady Aaggie Johanna, 3240; S. A. Northcoote, Taunton; Ester Hengerveld Johanna, 3220; J. Reynolds, Solina; Speckie Abbecker De Kol, 3160; A. Stanton, Solina; Speckie Speckie De Kol, 3178; C. Cox, Bowmanville; Laura Lyons, 3230; C. Cox, Bowmanville; Daisy Clintonia Segis, 3140; S. A. Northcoote, Taunton; Speckie Lyon Segis, 3170; Mr. Chan, Solina; Harry Harlow Donnicke, 3140; N. Metcalf, Bowmanville; Cows: Comdyke Segis, 3125; R. Stevens, Bowmanville.

MOST EMPHATICALLY NOT.

MAY Echo Sylvia still holds all the world's milk records from seven to 150 days, press despatches to the contrary notwithstanding. A few weeks ago a despatch was published in several leading Canadian daily newspapers claiming that the California cow, Raphaelia Johanna Aaggie, owned by the Napa State Hospital, had broken the world's record for milk production for seven days with 918.6 lbs. of milk. Farm and Dairy immediately drew attention to the error, quoting the seven day record of May Echo Sylvia of 1,008.8 lbs. of milk in seven days. In fact, the Canadian cow had a greater seven-day production than the Californian cow in each week of her test from the second to the ninth.

Now long comes another claim from the owners of Raphaelia Johanna Aaggie and also published as a "Canadian Press Despatch," that her 30-day record of 3,764 lbs. of milk is a world's record production. Again we would refer to the 30-day record of May Echo Sylvia, 4,194.5 lbs. of milk, or over 400 lbs. more than her California rival. Raphaelia Johanna Aaggie is undoubtedly a great cow, but we respectfully submit that she has to go some way before she puts May Echo Sylvia in the shade.



The fact that Page Fences do last, is sufficient reason for their choice by practical, careful Farmers.

PAGE FENCES BUILT TO LAST

We have seen, and maybe you have, too, some Page Fences, that were put up over 25 years ago. They were the first fences we made—yet they are still giving good fence service. Consider the satisfaction that those Page Fence buyers, of over a quarter a century ago, have received, from the money they spent. And Page Wire Fence is made the same way to-day, and of the same material as it was then.

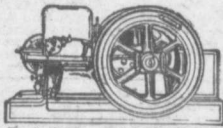
Actual Number 9 gauge wire is used throughout—in locks and all. It is subjected to an extra coat of galvanizing to give it added life and appearance. Quality and value are apparent in Page Fence to every Farmer, who really studies the wire fence problem. A Page Fence saves its owner money, because the one he puts up to-day will last his lifetime. No money spent on fixing it up.

In these times you cannot afford to erect a piece of inferior quality, that will not last. Thrift is the watchword of the day—and the best way to be thrifty is to spend your money on only the best equipment, that needs no replacing.

Page Fence is well worth looking into now. Ask any authorized Page dealer, or write direct to us for catalogue and price list. For your convenience we have placed a coupon below. Simply mark a cross opposite the Page Product you are most interested in. Send it now, while you think of it.

Remember, we allow shipping charges on all orders of 200 pounds or over, to any place in Old Ontario or Quebec, when payment is made within 30 days.

Address to your nearest branch.



PAGE ENGINES

Make light work of countless chores around the farm. The Page Farm Engine is a real help, because it does its work quickly; with never a "hitch." Yet its first cost is low, and its upkeep is almost nothing—2c. an hour for fuel.

It comes in five sizes, from 1 1/2 to 7 H. P., and two types—one burning Gasoline and the other Gasoline or Kerosene. Send to-day for complete information.

THE PAGE WIRE FENCE COMPANY
 Limited
 519 Notre Dame St. West, Montreal.
 Walkerville Wainipeg

Send me prices and catalogue of Page Products I have indicated below.
 Page Wire Fence.
 Page Gates.
 Page Engines.
 Page Woodaws.
 Name

AD. TALK.

QUALITY VERSUS QUANTITY.

The following clipping, taken from the May, 1917, issue of "Advertising," is on journal on publicity and merchandising, published by the American and New York, is interesting and profitable reading:

"Most advertisers fail to realize what a terrible nightmare to the publisher is, word circulation is with him, morning, noon and night. Everybody comes to him with the published with the government, the paper man, the printer, the advertiser, the agent, the writer and even the advertiser, seem interested in nothing but circulation, and the other. Twice, and over, they all want more, more."

"I talked recently with a space buyer who particularly wanted to cultivate a certain field, but he scoffed at the idea of using a paper with a circulation of less than 20,000, although it showed him that it was all the legitimate circulation to be secured in that field."

"For some unknown reason that space buyer had made up his mind it did not pay him to bother with any circulation of less than 100,000, and so he found that many a good paper was unable to secure a place on his list."

"The reasonable possibilities of every paper are limited by the circulation. Beyond the point where a profit is made by circulation, the paper is put in the hands of the advertiser, and this is one thing that should never fail to be the careful consideration of the space buyer in analyzing circulation."

"It is not satisfactory to what can reasonably be expected of the paper in the field it aims to cover, and then note how the circulation systems fit in with these possibilities. Don't expect a state space to have more intelligent people than there are intelligent people in the state."

"This demand for unnatural circulation is working a hardship on everybody, it brings about a loss to the publisher in his circulation department. It brings about a tremendous percentage of duplication and all of this necessitates the high cost of advertising."

"Space is not for yourself. The publisher has but two sources of revenue, circulation and advertising. If you demand a circulation which cannot be secured at a profit, you are to pay for it very much more expensive than it would be if you came to a line, it might be very much cheaper for you to have 100,000 at 70 cents a line, and this is what you are coming to."

"It is necessary to stop this wild craze for circulation and give a NATURAL DIRECT EDITORIAL INFLUENCE which can only be had by a demand for quality first and then quantity. It is legitimate, it is possible."

"The point emphasized in this article is the very point which 'Farm and Dairy' has been working on for years. It is a case of 'quality versus quantity,' and we know from experience that quality wins every time. Our aim has been to work up a quality circulation. Instead of getting a 'circulation craze,' as a few farm papers have done, spreading their circulation with but one end in view, that of being able to talk big circulation regardless of the class of readers. We, and others of the same mind, have worked on the 'quality' basis. We have gone quietly about placing Farm and Dairy in the hands of the progressive dairymen of Canada, breeders of all classes of dairy cattle, sheep and swine. Breeders of pure bred and progressive farmers who keep good grades, those of us who are interested in a better 'WHY BUY.' This explains the secret of our phenomenal success in a very plain medium. It explains the reason why one of our advertisements received thirty-three inquiries from an ad. which cost him approximately \$5.00. It also explains the fact that that advertiser would hold our advertising rates at the same rate as they were before the war. Though printers supplies have gone up one hundred per cent. in price. Who

benefits by this policy? Assuredly—the advertiser. Patronize the paper with the quality circulation. Advertisers in Farm and Dairy.

C. G. MCKELICAN, Live Stock Department, Farm and Dairy, Peterboro.

ST. ELMO HOLSTEIN NOTES.

READERS will notice the ad. of W. E. McKellican & Son, of Maxville, offering this herd was founded on either sex. Particular attention being paid to the pure-bred cows and yearly production. For the past two years private records have been kept, and the herd averages have qualified in R. O. P. with excellent records. By means of the R. O. P. and private records the herd averages has been raised well above 10,000 lbs per year under farm conditions. Great care has also been exercised in the choice of herd sires. During the past five years the following sires have been used—A son of Johanna Koo 4th's Lad with a R. O. M. dam, a brother of Elsie Sylvia, Beets Poch, the sire of May Echo Sylvia, and a three-quarter brother of Totilla of Riverdale R. O. P. champion of Canada, a grandson of Lakeview Rattler, 37 lbs. 5 days, from same dam Prince Poch Pontiac, 14 R. O. M. daughters and eight calves, from same dam headed by Prince Pontiac Artie Waldorf, who is also a descendant of the same dam, Prince Poch, 28.46 lbs. butter at 24 months, Canadian champion, and to the \$5,000 successor to King of the Pontiacs the Stevens' herd.

As practically the whole herd are by the above mentioned sires and as a result of the continuous weighing of milk there is no doubt that the herd is breeding going on it should be a safe place for anyone to say who wants profitable production.

THE BRANTFORD SALE.

THE adherents of the Black and Whites did not turn out in such large numbers to the Brant Co. Sale on April and eight would have bought the material day would have brought. Prices were fair, and many of the offerings could not be said to have equalled those of previous sales. The 47 E. L. sold brought \$145.00 an average of \$145.50 each. Herewith are the animals selling for \$100 and over: 1155, 1156, C. Force, Brantford Black Point, \$100; C. H. Hattie, Brantford, \$100; 1157, by Deuchie, \$100; C. Force, Brantford; Ruby Mercedes, \$100; P. Lampkin, Brantford; Elcho John Lake, \$100; A. Barron, Brantford; Cleverland Jane Hooker, \$100; Elyps, \$100; Jessie Johanna Calamity, \$105; Jas. Davis Merrifton; Malinda Payne Brook, \$118; G. J. Barron, Brantford; Daisy Pearl Patch, \$100; L. Plant, Brantford; Daisy Marjorie, \$200; J. G. Freeman, Premier Lyons Schilling, \$130; E. W. Woodley, \$120; Waterford; \$120; C. Force, Brantford; \$115; J. Davis, Merrifton; 1158, C. Force, Brantford; 1159, W. Sylvia, Merrifton; 1160, J. H. Hattie, Brantford; 1161, H. Dale, Brantford; Nora Creem 3rd's Della Schilling, \$150; R. P. Armstrong, Tillsonburg; Oak Lodge Nina, \$135; E. Peeler, Brantford; Oak Lodge Bell Banka, \$11; J. M. Hattie, Brantford; 1162, Princess Pontiac Calamity, \$105; Chas. H. Rathburn, Burford; Schilling Kordyke Abahlers, \$100; Allison & McCannan, Hagarburg; Daisy Banks Marceana, \$145; Angus Taylor, Galloway; Della Ormsby, \$160; F. A. Picht & Son, Curries; Johanna Spine, \$120; Prince Patricia Moore, \$120; P. Plant, Brantford; Black Maid, \$130; J. Davis; Countess Ormsby's Belle, \$110; W. W. Bantam; Fairfield Lady Wagon, \$195; J. C. Tully, Brantford; 1163, W. Sylvia, Merrifton; 1164, A. Barron; Princess Arcano, \$190; T. A. Barron; Princess Patricia, \$145; H. T. Wood, Brantford; Malinda Calamity Brock, \$110; Prince; Prince; Molly O. \$160; W. D. Burch, Merrifton; 1165, J. H. Hattie, Brantford; R. Holt; Joyce Fayne Beas, \$100; J. Davis; Dylan Abaker's Kordyke, \$100; Wm. Bonney Hivory; Countess De Pezer, \$180; E. J. Durn; Daisy Lynn Poch, \$200; W. H. Easterbrook; Lady Trafalgar, \$160; J. C. Tully, Brantford; Mercedes King Picty, \$115; S. Van, Greenvalley.

ST. ELMO STOCK FARM

Type Breeding Production

Present offering, calves of either sex, sired by BOUTJE RATTLER, whom dam and sire average over 20,000 lbs. yearly milk and 32.5 weight butter. He is from same dam as PRINCE POCIET PIETERTJE, 14 R.O.M. daughters and 3 sons. Dams of calves sired by 1/2 brother to TOTILLA OF RIVERDALE, R.O.P. champion of Canada. Our present herd sire is an almost full blooded brother to the \$5,000 successor to KING OF THE PONTIACS, at the head of the STEVEN'S herd. Watch for our offer from the great sire. For further particulars write, phone, or call.

W. E. McKellican & Son - Maxville, Ont.

2 Sons of King Segis Alacraa Spofford.
One from Countess Segis Kordyke, 2 1/2 yr.-old, 25 lbs. milk one day (Can. recd.); one from INKA STYLIA WALKERB SKEBBS—the best bred daughter of Inka photos view.
W. G. COX, FRUITLAND, ONT.

HAVE YOU SECURED A BULL? IF NOT—

What about one of these:
No. 1—Austral Artie Beets, \$460, rising 2 yrs., safe, sure and of A1 type.
No. 2—Glenice Lewis, \$274, 16 months, sire is a 15,000 lbs. R.O.P. dam, brother to May Echo Sylvia, from R.O.P. Dams.
(A few choice grade cows for sale)

Write or phone.
GEO. W. ANDERSON, BOX 182, CAMPELLFORD, ONT.

GET THIS ONE.
It is a Bargain.
Bull calf, one month old, marked perfect half and half, large, straight and square. SIRE, KING SKEBBS ALACRAA SPOFFORD (imported by Leavens and Furlong, of the great \$50,000 bull). Dam, one of a daughter of GIBBY DAKENBRO, son of the great MAY ECHO SYLVIA, 728 lbs. milk and 33.93 lbs. butter in 7 days and a calf, 7 lbs. Extended pedigree furnished.
CLARENCE MALLORY, BLOOMFIELD, ONT.

AVONDALE FARM OFFERS

1. A choice young bull, born Nov. 2, 1917, sired by "Woodcrest Sir Clyde" Dam, a 23-lb. daughter of "Prince Hengerveld Pietje", 2nd dam, \$7.62-lb. A bargain for immediate sale.
2. Also a grand young bull, born Oct. 6, 1917, light in color, sired by "King Echo Sylvia Johanna." This is the \$5,000 yearling son of Belle near-2nd daughter of "K. P. A. Canada"; 2nd dam, 29.94-lb.; 3rd dam, 31.70-lb. A bargain.
H. LYNN, Avondale Farm, Brockville, Ont.

HERE'S A TOP NOTCHER

Sire—KING SEGIS WALKER.
Dam—50 lb. daughter of PONTIAC KORDYKE. He's only a baby, but will grow.
A. A. FAREWELL, OSHAWA, ONTARIO

SUNNYBROOK FARM HOLSTEINS

Get them while they last! We have only 3 of our young bulls of serviceable age left. Do not miss this opportunity. You will never get finer individuals with such official backing, so reasonable.
Jos. Kilgour, Eglington P.O., North Toronto

SPRUCCOLE FARM Offers For Sale

Two Holstein bulls fit for service from same dam.
No. 1 born February 31, 1917; seven-eighths black, whom dam as a 3-year-old gave 48 lbs. milk with nearly 18 lbs. butter.
No. 2 born March 31, 1917; mostly white, whom dam as a 3-year-old gave 40 lbs. milk and over 17 lbs. butter.
Also younger bulls. These are good straight bulls. Write for particulars or come to see them.
Sebringville Station 1 Mile, EZRA G. SCHWEITZER, R. R. No. 3, STRATFORD, ONT.

CHOICE BULLS READY FOR SERVICE

No. 1—By a son of MAY BECHO SYLVIA. His two nearest dams both Canadian champions, average 35.62 lbs. butter in seven days. Price \$1,000.
No. 2—By a son of MAY BECHO SYLVIA. His two nearest dams (one a 3-year-old), average 34.17 lbs. butter in seven days. Price \$850.
Some extra choice young bull calves from \$300 to \$1,000. Also sold thirty young bulls this winter.
R. W. E. BURNARD, Highland Lake Farm (Farm at Step 20 Years Breeds Bull) Jefferson, Ont.

ST. ELMO STOCK FARM

Present offering, calves of either sex, sired by BOUTJE RATTLER, whom dam and sire average over 20,000 lbs. yearly milk and 32.5 weight butter. He is from same dam as PRINCE POCIET PIETERTJE, 14 R.O.M. daughters and 3 sons. Dams of calves sired by 1/2 brother to TOTILLA OF RIVERDALE, R.O.P. champion of Canada. Our present herd sire is an almost full blooded brother to the \$5,000 successor to KING OF THE PONTIACS, at the head of the STEVEN'S herd. Watch for our offer from the great sire. For further particulars write, phone, or call.
W. E. McKellican & Son - Maxville, Ont.

SEED CORN

We can supply you with excellent quality Seed Corn (Germination about 95%) at the following prices P.O.D. Lindsay: Mammoth Southern, \$4.50 per bus. Laming Fodder, \$4.50 per bus. W. Co. \$4.50 per bus. Seed Corn Bags, weighing 2 bus. 50 lbs. each.

SPECIALTY
Roberts and Pedget LINDSAY, ONTARIO.

For Quick Sale

Pure bred Holstein Bull calves, sire by a grandson of May Echo Sylvia, 2700-lb. cow and from choice dams with 100-lb. sire, Price \$40. Also a few heifers, sire, Price \$40. You want a bargain.

ADVERTISE

In these popular columns your advertisement reaches others had so probably costs you only \$1.00 an issue.

DO NOT BE LATE!

A number of our dairy breeders who regularly use the columns of FARM AND DAIRY have on different occasions sent us copy too late to get in the proper issue. This is a disappointment both to us and to the advertiser. We would not like the advertiser cut out of the advertisement copy to have all our free stock advertising copy NOT LATER THAN SATURDAY OF EACH WEEK. We would like to see the advertiser's copy Thursday or Friday, as early copy means that we are able to give our readers the best copy possible.
IF THIS MEANS YOU—know what to do—mail your copy Wednesday or Thursday of the week previous.
LIVE STOCK DEPARTMENT
FARM AND DAIRY
Peterboro, Ont.

WORLD'S RECORD

Breeding backs PREMIER AMBERKICK KEYES on both sides of his pedigree. He was born March 22, 1918, and is a bull of extreme quality, having breeding and individuality to back him up. **SIRE**—KING SYLVIA KEYES, a brother to May Echo Sylvia, 41.00 lbs. butter with 1,095 lbs. of milk in 7 days and 152 lbs. of milk in 1 day (World's Record). He has also 8 sisters that average 115 lbs. milk in 7 days, his dam made 100 lbs. in a day and 29 of his nearest relatives average 32.25 lbs. of butter with 641.4 lbs. of milk in 7 days.

DAM—AMBERKICK JEWEL, with a record of 495.5 lbs. of milk and 50.30 lbs. of butter as a 2-year-old. She has 12 high-record sisters in R.O.M. Her dam is a sister of Madam Fosh Pauline with 34.88 lbs. of butter in 7 days and 27.67 lbs. of milk and 1,123.5 lbs. of butter in a year on official test (former World's Record). He is one of the price, terms, etc.

VISITORS ALWAYS WELCOME.

W. G. Bailey, Oak Park Stock Farm, Paris, Ont.

HOLSTEINS

One 2-year-old bull; 1 bull 18 months, out of a 23½-lb. 3-year-old dam; 1 bull 13 months; others younger.

R. M. Holby R. R. No. 4 Port Perry, Ont.

PRICED TO SELL

A yearling bull, out of a 15 lb. Sr. yearling heifer, who should make a great record this year. He is bred by our \$2,000, 25-lb. bull. We will have no more bulls to offer until next fall.

Write at once to

ARBOGAST BROTHERS SEER NGVILLE, ONT.

ELMCREST STOCK FARM

Offers for Sale

No. 1—Bull, 1 month old—Dam Ganos Bessie Fafort, 2418—record at 2½ years, 467 lbs. milk, 37.06 lbs. butter. She is a daughter of the beautiful Rosie Fosh, grand champion at Guelph Dairy Test, 1914. Sire—also a 30.78-lb. daughter of a 27.56-lb. cow.

Also a few fresh cows, splendid producers with world's record breeding.

Prices Very Reasonable.

W. H. CHERRY Bell Phone HAGERSVILLE, ONT.

LYNDALE OFFERINGS

No. 1—A son of CHAMPION ECHO SYLVIA PONTIAC, 12 months old—sired bull—dam a 15-lb. Junior 2-year-old daughter of KING PONTIAC ARTIS CANADA.

No. 2—A 12 month old son of MAY SYLVIA PONTIAC CORNUCOPIA (¼ brother to Champion Echo Sylvia Pontiac). Dam—PIETIE INKA PIETERTJIE—butter 7 days, 42-rs.-old, 59.77 lbs.; 20 days, 124.34 lbs.; milk 1 day, 109½ lbs.; 7 days, 696 lbs. 42 days, 1725 lbs.

BROWN BROTHERS LYN, ONTARIO

Your Chance For A Herd Sire Hartog Butter King (17536) four yr. old

A bull with seven 100 lb. cows in his pedigree. Splendid individual, safe and sure. Sire, CANARY MERCEDES PIETERTJIE HARTOG 7714, who is sire of JENNY BORGES ORMSB 474, 624 lbs. milk, 24.15 lbs. butter in seven days, 1,769 lbs. milk, 97.18 lbs. butter in 30 days.

Dam, JENNY BORGES, who is dam of JENNY BONANUS, with 530 lbs. milk, 33 lbs. butter in 7 days, 2,380 lbs. milk, 130.30 lbs. butter in 30 days. A 20 lb. cow for 6 years in succession, also champion for 2, 3 yr. class for several years, with 15,649 lbs. milk, 829 lbs. butter; also dam of JENNY WAXMA, who made 65 lbs. butter in 7 days at 2 years.

We have about 25 of his heifers. Write me to sell him to avoid breeding. Don't let this opportunity pass. Write now.

A. W. CRAIG, R. R. No. 5 Brantford, Ont.

SAVE YOUR CREAM

Raise Your Calves At a Big Profit



International GROFAST Milk will raise three or four calves at the cost of raising one calf on new milk. Sell your Cream and still raise your calves at a handsome profit. GROFAST is a complete and cheap scientific substitute for Milk. Endorsed by farmers everywhere.

Write us for Booklet, "How you can Raise and Grow Calves at a Low Cost Without Milk."

INTERNATIONAL STOCK FOOD CO., LIMITED
Ask Your Dealer TORONTO

INTERNATIONAL GROFAST CALF MEAL

MARKET REVIEW AND FORECAST

TORONTO, April 8.—The most of the interest in market circles here is in the fixation of a price for the 1918 wheat crop. The Board of Grain Supply in Winnipeg, and among other problems that of the fixing of a price will be the chief concern of the Winnipeg grain men that is the price for wheat which is to be changed for the 1918 crop. While at present there is a bill before the United States Congress which states the price for the 1917 crop at 22 cents, that the present price is sufficient to maintain maximum production of wheat in the West, and that an increase will not therefore be granted.

Whatever may be the feeling of Western farmers in the connection, there will still be an increase in the acreage of wheat throughout Eastern Canada, if the price remains the same as that of last year. The live stock market is continuing to improve by the packers to lower the price for hogs at Toronto, when they were sold at \$21.25 and watered. Few hopeful authorities are out to the market and this account it is considered that the hog market will be strong for some time.

Practically the only trend in wheat is in the movement of some 69 cars of Western wheat a day, which are moving forward to keep the Ontario mills going in another two or three weeks, all grain movements will be by rail, but supplies should be more plentiful. There is little hope of wheat coming from Ontario farms now. Any that has not already been disposed of will be used for seed or feed. Interest in the wheat market is centering around the meeting of the grain men in Winnipeg, who have met to decide among other things upon a fixed price for the 1918 crop. The Board has suggested that a minimum price be set at 22 cents for the 1918 crop, but reports have it that the maximum price set for the 1917 crop will probably be unchanged in 1918. Quotations—Wheat No. 2 Northern, 42¢; William, nominal (including tax), 42¢; northern, 42.25¢; No. 2 northern, 42.30¢; No. 2 northern, 42.37¢; No. 2 wheat, 42.10¢; Ontario Wheat—No. 2, 42.25¢; No. 2 wheat, nominal.

Grain Prices.

There has been a decided tendency toward lower prices for oats in both the American and Canadian markets. This is the demand and also to the present movement from country points on account of importation of American supplies. While corn is moving forward, there is little demand for it for the present high prices. No. 2 K. D. yellow is the only grade offered. It ranges from \$1.85 to \$2 delivered Toronto. Quotations: Oats—No. 2 C.W., 84¢; No. 2 C.W., 84¢; extra No. 2, 85¢; Ontario No. 1, 87¢; No. 2, 87¢; No. 2, 87¢; No. 2, 87¢. Barley—Maltine, new, 57¢ to 57.75, according to freight, Ontario Flour—Winter, in new bags, prompt shipment, was quality, 87.75; Toronto delivery, 87.75; Montreal, prompt shipment, 87.75; 55 to 57 to 57.75, according to freight. Buckwheat—No. 1, 87.75.

Milk Feeds.

Milk feeds are still as scarce as ever. Toronto quotes car lots, 40 cents per ton, freight included, bran per ton, \$36.40; shorts, 140, 50 cents per ton; middings, 148 to 155; shorts, 173 to 175.

Hay and Straw.

Hay is quoted in Toronto at \$17 to \$18 for No. 1, with mixed \$14 to \$16 for cut; straw, car lots, \$5.50 to \$5; Montreal quotes No. 2 hay, car lots, 17 1/2.

Potatoes and Beans.

Potatoes are not quite so plentiful on the market as they were a week or so ago, presumably due to the fact that the cheap potatoes will soon be called for and that stocks are being picked over for this purpose. Prices to the retail trade are unchanged. Toronto quotations, Ontario's, 11.75, and New Brunswick's, 12.25, at \$1.39 per bag. Montreal quotes Green Mountain, 11.75; White stock, 11.65 to 11.70, with reds, 11.60 per bag of 30 lbs. ex-store.

Toronto is quoting beans, Canadian prices, \$7.50 to \$8, with foreign hand-picked at \$8.75 to \$9.

Seeds.

Many seedsmen are reporting a somewhat limited supply of hard and prices will be higher. The following prices are being quoted for seeds per hundred pounds:

Clover Seed—Red medium, \$4.25 to \$4.75; Large late red, 44.75 to 48.75; Red clover, 18.75 to 24.50; White Dutch clover, 18.75 to 22.25; Alfalfa, 28.00 to 34.75; Grass Seeds—Timothy, 30.75 to 36.00; Blue Grasses, 20.00 to 37.00

| | |
|---------------------|----------------|
| Seed Corn, per bush | 4.76 to 5.18 |
| Barley, per bush | 2.60 to 2.85 |
| Beans | 11.00 to 11.25 |
| Rickwheat | 2.45 to 2.46 |
| Cracked corn | 4.90 to 5.10 |
| Peas | 8.45 to 9.40 |
| Wheat | 6.00 to 6.75 |
| Seed Flax | 6.00 to 10.00 |

Eggs and Poultry.

Receipts of eggs are steadily increasing. Toronto wholesaler pays 1¢ for eggs to 35¢ at country points, which is a decrease from last week's rate. A few large prices. Considerable quantities of eggs have been shipped from the United States during the past week, but this importation has now dwindled to almost nothing, and it is thought that there will soon be a surplus of Canadian eggs for storage purposes. So no one has been willing to predict at what price eggs will be stored this season. It is not likely, however, that the price of eggs will go to very much lower than those now quoted. For it is the interests of all concerned that production be maintained and this can only be done with fair prices. Toronto wholesalers are quoting to the retail trade new hadd, 42¢ to 44¢; selected new eggs, 41¢ to 47¢; cartons, 42¢.

Very little poultry is coming on to the market, and in some of the United States centres many poultry dealers are reported to have closed shop because of the business. Toronto quotations are:

| | | | |
|--------------------|------------|------------|------------|
| Chickens | 27¢ to 30¢ | 30¢ to 36¢ | 36¢ to 39¢ |
| Milk fed | 30¢ to 32¢ | 32¢ to 36¢ | 36¢ to 40¢ |
| Hens, 3½ to 5 lbs. | 25¢ to 30¢ | 30¢ to 35¢ | 35¢ to 40¢ |
| Roosters | 22¢ to 25¢ | 25¢ to 30¢ | 30¢ to 35¢ |
| Spring chickens | 30¢ to 35¢ | 35¢ to 40¢ | 40¢ to 45¢ |
| Turkeys | 30¢ to 35¢ | 35¢ to 40¢ | 40¢ to 45¢ |

Dairy Produce.

Butter prices are unusually steady for the time of year, due to the large demand and the shortage of storage. Dairy butter is being bought at country points at from 34¢ to 38¢ per butter, and creamery stock, 44¢ to 46¢, with pricing, 50¢ to 52¢ for creamery butter, with fresh milk. Fat is selling at 12¢ to 14¢. Choice dairy prints are selling to the tune of 40¢ to 42¢ per pound.

So far no action has been taken toward the fixing of a price for cheese, although the factory associations are about to discuss the price that may be set will have a large effect on the market.

Whether he will market his milk at cheese factories or elsewhere means the action of the British Government, which is chasing 12,000,000 lbs. of American cheese to New York at a price of 14¢ per lb. Canadian farmers to believe that they should get a consistent price for their cheese over their cheese over and while nothing definite is known, there is a feeling among the trade at Toronto, that a higher range of prices will soon be set to cover the cost of the season's make. There is a rumour that the new price will be 25¢ per lb., but as yet no announcement has been made.

Live Stock.

The top of the stock market this week for extra choice cattle was \$13 per cow. The general run of good to choice stuff ranged in price from \$12.25 to \$12.50 per cow, and the average price for the week was \$12.25 per cow. 50¢ and watered, 50¢ per cow. The price advanced from \$20.50 to \$20.75. On Wednesday the price was unchanged, but the majority of the week was advanced. On Thursday the price had advanced again to 16¢ on the mark, and at that figure the week closed.

Quotations—

| | |
|---|----------------|
| Heavy steers, choice | 12.25 to 12.50 |
| do good | 11.75 to 12.10 |
| H. b. steers | 12.50 to 13.00 |
| 100 lbs | 12.50 to 13.00 |
| do heifers, choice | 11.50 to 12.25 |
| do good | 11.00 to 11.50 |
| do medium | 10.50 to 11.25 |
| do common | 9.50 to 10.25 |
| Heavy calves | 10.00 to 11.00 |
| do good | 9.50 to 10.25 |
| do medium | 9.00 to 9.75 |
| do common | 8.25 to 9.00 |
| Feeders, best | 9.50 to 10.25 |
| do common | 8.75 to 9.50 |
| Grass cows | 7.00 to 7.75 |
| Milkers and springers | 10.00 to 12.00 |
| choice | 65.00 to 80.00 |
| do com. to medium | 55.00 to 65.00 |
| Calfs, choice | 11.00 to 13.00 |
| do medium | 10.00 to 11.50 |
| do common | 9.00 to 10.00 |
| Heavy fat calves | 11.00 to 12.00 |
| Lambo, choice | 12.80 to 13.75 |
| Sheep, choice | 11.00 to 12.00 |
| do heavy and fat wethers | 11.00 to 11.50 |
| Horn, fed and watered | 21.00 to 20.00 |
| do of cars | 19.75 to 19.25 |
| do f.o.b. | 19.75 to 20.00 |
| Less 1¢ to 3¢ on light, to 3¢ to 5¢ on heavy, less 1¢ on ham. | |

The Right Sire—



KING SEGIS PONTIAC POSCH. No. 16627 C.H.B. No. 112517 A.H.F.B.
SIRE—King Segis Pontiac Alcartra (the \$50,000 sire). DAM—Fairmont Netherland Posch, 32.59 lbs. (at 4 years)

To Breeders of Holsteins

It was my privilege last week to secure a half interest in King Segis Pontiac Posch, and I take this opportunity of announcing that hereafter "King" will be owned jointly by Manor Farm, Clarkson, Ont., and by myself. I have selected King to head my herd because I know he combines the richest breeding in America, together with proven ability to produce deep, straight, strong sires and females—75 per cent. of the latter.

King's dam and sire's dam—(both as 3-year-olds)

averaged 31.38 lbs. The records of his dam and three nearest dams of his sire average 32.24 lbs. The records of his ten nearest dams average 29.20 lbs. The records of his nineteen nearest dams average 27.21 lbs.

King has the 30-lb. habit fixed on both sides and with the same blood in his veins that produced the World's champion long distance cow Tilly Alcartra with 30,400 lbs. milk in one year. My new herd combination will be "King's" blood

and 20,000 lb. Females

Here are some of them—

Totilla of Riverside—Milk 24,094 lbs.—1,057 lbs. butter—Canadian champion R.O.P. cow (mature class)—a record she has held consecutively for three years. She is by nature a long distance producer, although her dam stands at the 30 lbs. mark in 7 day work.

Burkeje Hengerveld—20,177 lbs. milk—782 lbs. butter—First 20,000 lbs. 4-yr.-old in Canada. She is also reproducer, being the dam of Burkeje Hengerveld May Echo.

Calamity Johanna Nig—Milk 25,433 lbs.—1,067 lbs. butter. For a time she held the Canadian champion R. O. P. for milk production. It is such blood as this that "speeds up production"—and enlarges the monthly milk cheque. Calamity has an 18 lb. jr. 2-yr.-old daughter.

And when it comes to short distance work, we have 3-yr.-olds just touching the 30 lbs.

Burkeje Hengerveld May Echo made 29.68 lbs. butter—563 lbs. milk as a jr. 3-yr.-old, taking third place in the Dominion of Canada. She is the first daughter of Burkeje Hengerveld, Canada's first 20,000 lb. 4-yr.-old—a typical example of production and reproduction in our herd.

When I began breeding Holsteins a few years ago I determined that my success should rest upon a strictly utility herd—a herd that would produce milk and butter in great quantities from year to year. In a very generous measure, success has attended my efforts. The 20,000-lb. blood. They have been great producers and cash earners.

And further still their fine records have added greatly to the value of their offspring. This gives me a double earning power for the milk and the ambition of every breeder of good Holsteins.

But I am not satisfied. That's why I secured "King." I want to perpetuate in the offspring, not only the great ability of my dams, but also the splendid type and rich popular breeding of the best blood in America. I believe I have now this combination. "King" represents a world famous cross of King Segis Pontiac with a daughter of King of the Pontiacs.

I want to say to my fellow breeders that if you are desirous of the best for your herd, why not plan even now to secure a young sire or female from any of these dams for more than six months. Now is the time to arrange for such. So far I have never been able to go. Such a sire or female will give you the possibility of tremendous records together with blood combination that cannot be excelled. Speak early.

The O'Reilly Stock Farm Jos. O'Reilly
Proprietor Peterboro, Ont.

Tried, Proven and Endorsed

The Government of Canada, realizing the increasing difficulties which the farmers of Canada are facing through labor shortage, have carefully examined the help problem on the farm with the idea of eliminating extra work and drudgery.

Here is the Government's answer to every farmer and dairyman: "A partial solution of the labor problem is the milking machine."

Empire Milking Machines have been used for over three years on the Government Experimental Farm at Ottawa,—and in view of their past performance, the Dominion Government has now placed an order for six more Empire outfits to be installed on the following Experimental Farms: Fredericton, N. B., Lennoxville, Que., Cap Rouge, Que., Ste. Anne de la Pocatière, Que., Lacombe, Alta., Brandon, Man.



Actions Speak Louder Than Words

Empire Milking Machines are a good investment as they enable one man to do the work of three hired men in the same time. A boy can operate an Empire with ease.

Empire Milking Machines can be installed and operated at small cost,—the initial investment sum being paid for in time and labor saved.

The cost of operating an Empire for one year is just a fraction of the cost of boarding the hired man, aside from his wages—in one year, your saving is enormous.

Empire Milking Machines milk in Nature's way. The action of the teat cups is that of the sucking calf, massaging the teats from tip to udder, gently and uniformly—the same way at every milking.

The experience of thousands of farmers and dairymen is: that cows and heifers take readily to being milked by an Empire. The soft, gentle massaging of teat cups sets up a pleasing sensation which causes the cow to give down readily and stand content while being milked. Empire Milking Machines will lengthen the cow's period of lactation.

Empire Milking Machines are easy to care for. Simple in construction, these machines do their work with speed and efficiency and can be operated by man, woman, boy or girl.

We know of no Empire Milking Machine that is not giving absolute satisfaction and doing all we claim it will do.

Dozens of other farmers and dairymen, just like yourself, use Empire Milking Machines and cannot say enough in their praise of the machine and its value to them.



Information saves money so write us today for booklets, testimonials and detailed particulars.

ASK FOR CATALOGUE 5

The Empire Cream Separator Co. of Canada, Limited
MONTREAL TORONTO.

On March 6, 1918, the Dominion Government ordered six more Empire Milking Machine outfits

Exact Copy of Government Circular issued to Farmers of Canada.

Dominion Experimental Farms.

J. H. CRISDALE, B. Agr. Special Circular No. 13. GEO. W. MUIR, B.S.A.

THE MILKING MACHINE

A PARTIAL SOLUTION OF THE LABOUR PROBLEM

They will take the place of that extra hired man so hard to obtain at the present time. *Under that hired man they are always there ready for work. Their work is noted for its uniformity from day to day. Milking machines are now recognised.*

AS A GOOD INVESTMENT

One man with a milking machine can milk twenty to twenty-five cows per hour. This number would take three men at hand milking. The real drudgery of the dairy farm is eliminated by the use of the milking machine.

The object of this circular is to put before the dairy farmer the value of the mechanical milker under the present conditions of labour on the farm.

There has been in the minds of many dairy farmers a great deal of prejudice against the use of a mechanical milker, but the present is no time to let prejudice stand in the way of increased production.

Every dairy farmer with a herd of 12 or more cows should consider seriously the installation of a milking machine.

The experience of an ever-increasing number of practical farmers, coupled with that of a number of our Experimental Farms and Stations, goes to prove that these machines are decidedly advantageous.

The average cost of installation, taking into consideration the five most popular machines on the market, would be about \$300 for an outfit to milk four cows at once.

For a 20-cow herd a 3-cow outfit would be sufficient. For a 12- to 15-cow herd a 2-cow outfit would be sufficient.

Such an outfit would be larger enough for a 25- to 35-cow herd. For each reduction of one unit in the installation there will be a reduction of approximately \$100 in the cost.

This brings the average cost price to \$18.00 per cow for the large herd; \$20 per cow for the medium-sized herd; and \$25 per cow for the small herd.

This in turn goes to show that while the cheapest installation for work done is with the large herd, nevertheless the first cost is not excessive in the case of a small herd.

The annual cost of operation for a 25- to 35-cow outfit, including repairs, petrol, electricity for engine and washing machines, interest on investment, and test per cent, for a 20-cow machine, would amount to approximately \$225.

The above is approximately one-third of the farmer's total present paying his hired man, where board is not taken into account.

Divided between 20 cows, this brings the running expenses to two cents per cow per day.

The average hired man will not milk more than seven cows per hour, which, at 20 cents per hour, costs 72 cents per cow per day for hand-milking. One man with a milking machine brings the total cost of machine to 4.5 cents per cow per day.

This is a saving of considerably over one-third and in a large herd would enable the farmer to disengage with a least one, if not two, or it would liberate these men for other important lines of increased production.

It also enables one man to milk many more cows than it is physically possible for him to milk by hand.

Not only does a machine decrease the cost of milking, but it gives uniformly in milking. All cows are milked in the same manner every day, and every good dairy farmer knows that is important and that it is hard to obtain with the general run of farm hands.

A machine when properly installed and equipped with a reliable source of power is always there ready for work.

Break-downs are comparatively rare and usually easily remedied.

Wear and tear is not excessive, considering the nature of the machine, and provided the latter is given proper attention.

A machine that is properly adjusted and handled will not injure the cow's teats or udder any more than the average farm hand.

Three years' experience of mechanical milkers on the Central Experimental Farm demonstrates that the cows dry off any more quickly than when milked by hand.

There is no more, if as much, objection to the milking machine on the part of the cows than there is to hand milking.

Old cows used to hand-milking object most, and may not let down their milk readily, but heifers take to machine milking like ducks to water and require hardly any stripping.

Stripping by hand after taking the machine milk is advocated by all users, as well as makers, as a precautionary and economical measure.

If the machines are properly handled in the barn, and likewise properly washed in the dairy, the milk produced will be as good, or better, than that produced by hand-milking.

Where extra pains are taken with the machines and the care of the milk a very high grade of milk can be produced. Careless handling results in bad milk and ultimate failure of the machine.

Last, and of far more importance than the cost price or make of the machine, comes the question of the efficiency of the operator.

Handling the machine is a job for the farmer, his son, or some hired man, and has an interest in the success of the machine and the cows.

For best results the operator must be quick and quiet, with an eye for detail.

Know the machine and the cows, and adapt the one to suit the other, giving each their proper share of attention at the proper time.

Any of the more prominent makers of milking machines upon the market will do good work provided their men are properly handled.

The addresses of the dealers or manufacturers of the various machines can be procured from the farm journals, or upon application to the Animal Husbandry Division, Experimental Farms, Ottawa.