

TO THE FARMERS

Farmers and others interested are invited to contribute to The Farm, The Dairy, The Turf, and Good Roads departments of The Guardian either by question, correspondence or otherwise. Answers will be given by experts to all questions of general interest and space will be given to any articles that will in any way help to advance Prince Edward Island interests.

Contributors are asked to have their articles at this office early each week, as only a short emergency item can be handled as late as one p.m. Wednesday. All received after that hour cannot appear until the following week.

THE FARM

WHY IS IT?

(By C. P. Thorne.)

Why is it? And well one may ask. That a flock of geese, enclosed in a small, "high-class," "dryless," "airless" hen-house, fed on hulled potatoes, white oats and an occasional bit of wheat, are laying—when their neighbor's standard bred, high costing fowl, fed on a balanced ration of wheat oats, corn, buckwheat, barley, beefscrap, green feed, etc., living in an open air, or curtain front, dry, sunny house, are not laying? This is a question that has baffled me, and I guess a whole lot of other practical poultrymen. There is surely a lot of answering to this question and most of the answers from those I've asked were such: "They must be of a great heavy laying strain," "Their house must be very warm and comfortable," "They must be well fed," etc., but, as I have said before, they are not standard bred, or first crosses either, but what most people would term mongrels. The flock originated out in the country somewhere, and are partly Leghorn, Minorca and Barred Rocks as far as I can find out.

They are a bright eyed, alert, busy sort of bird, being all colors, that come in fowls. They are not large, not more than an average of five pounds per hen, and in the flock I mention are 6 pullets and 14 hens.

Their house—well I wish you could see it; made of old doors and padded with seaweed, and not a pane of glass in the "shack," their only light coming when the door is left open on fine days.

They are very healthy. The owner

said he never heard of a cold or any other ailment among them.

Their floor, although not dry, isn't by any means wet, and it has about 5 inches of ashes and hayseed on it.

I asked him how they were fed and he said, in the morning I throw them some oats, at noon-time I give them some boiled potatoes and oats, and at roosting time I sometimes give them a few handfuls of wheat.

His egg yield was good, and the day I was there, about 2 p.m., he had gathered 8 eggs (January 10th), probably he got more that day, but I didn't find out since.

When one sees a case of this kind it almost makes him resolve to do away with his flock of standard bred, and his up-to-date houses, and do as his neighbor is doing.

Well, then, how is it?

The only thing I see to do is to get the laying strain of birds, regardless of standard breeding (that is if you are in it for eggs).

There is surely a whole lot in this case (which is one of four I know of) for our experts, and their experimental farms.

This man is making his hens pay, whereas a good many of my type are not.

I must confess that some of my own are laying but nothing like this person's I write of, besides his began weeks before mine did.

AGRICULTURE AND HORTICULTURE.

Note.—This is an examination paper as prescribed for the examinations of students taking the agricultural course at Guelph. The farmer who reads this might try his hand at answering the questions. He will find in many cases that it is a good deal easier to do things than it is to tell how to do them, and an attempt of this kind might disabuse the mind of some farmer who apparently has no use for book learning, to give him more respect for that fine class of men who are writing to dignify the profession of agriculture. The great drawback of the farm life today is the man who knows it all.—Editor Farmers' Magazine.

1. On Farm Animals—Sketch a half breed, marking the butcher's cuts, OR, Describe a typical dairy cow.

2. On Dairying—The O. A. C. is to have new dairy stables; how will you expect them to be planned, equipped and finished?

3. On Poultry—Point out the structural features of the 100-fowl henhouse advocated by the Poultry Department.

4. On Physics—The site on which your school garden is to be made is heavy clay. Explain how you will try to work it.

5. On Bacteriology—How do bacteria act beneficially (a) in soil, (b) in milk, (c) in animals?

6. On Agronomy—Outline a schedule for scoring a standing field crop.

7. On Plant Crops—Explain the process of plant improvement by selection by sketching the history of O. A. C. No. 21 Barley, or O. A. C. No. 72 Oats.

8. On Weeds—A farmer's field is infested with mustard or couch grass or perennial sow thistle. Outline a plan for eradicating any one of them.

9. On Botany—Describe a typical grass flower, OR, Outline the life history of wheat rust.

10. On Plant Propagation—Explain the method employed by nurserymen in producing an apple tree OR a peach tree.

11. On Vegetable Gardening—Explain structure and use of cold frame, OR, Tell how to prepare a hot bed.

12. On Orcharding—What are the requisites for a proper site for an apple orchard?

13. On Chemistry—Name the common artificial fertilizers (giving formula if possible) and describe a test for any one of them.

14. On Entomology—Name the common insect pests of the apple and describe one of them.

FEEDING SCABBY POTATOES TO STOCK.

In the study of potato scab at the Maine Experiment station no published data could be found regarding whether the germs of the disease were killed in the passage of the digestive tract of domestic animals. That is, can scabby potatoes be fed to the horse, cow, sheep, etc., without having the manure of these animals carry the germs of the disease? It is a well known fact that potato scab will persist in infected soils for an undetermined period, at least 25 years or more. It has also been demonstrated repeatedly that the application of fresh stable manure to the soil, immediately before planting, tends to increase the amount of scab former than with the latter animal. The manure of horses fed on scabby potatoes is very likely to carry the germs of the disease. On the other hand manure from cows fed a moderate quantity of potatoes which are not excessively scabby, is probably not a serious source of contamination.

COMPARISON.

The table below gives the German, American and Canadian cereal and potato yields per acre for the last crop. In both the United States and Canada, it should be remarked, the 1912 crops were slightly better than in 1911, and the German crops were about average, or slightly under:

	German	U.S.	Canada
Wheat (bushel, acre)...	34	17	20
Oats.....	47	35	39
Barley.....	40	30	31
Rye.....	29	17	17
Potatoes.....	223	113	172

No less than 91 per cent of German soil is productive, one-half of the area being under continuous cultivation. The aggregate quantity of the crops produced, the average of which gives the above-quoted figures, is so enormous that only to superior farming can Germany's pre-eminence be attributed.

THE DAIRY

DAIRY BREEDS.

In the Guardian of the 14th January, I noticed a well deserved write-up of the McRae & Sons, Ayrshire herd, by Prof. Ross, in which he shrewdly points out some winners.

Milkmaid 7th is a good cow for any breed and is remarkably good Ayrshire. She made a record at Amherst that delighted every Islander, whatever his breed preference might be, but she did not make the best record yet made at Amherst, nor did she equal the record made by a Holstein grade at the last test in Guelph, nor did she equal the world's record made at Ottawa last year by two Holsteins, (claimed by Prof. Ross to be won by an Ayrshire.)

That Milkmaid 7th made a splendid record no one will deny but she only beat a Holstein grade by a nose, less than two points in 240.

Now as regards dairy tests in Canada, Ayrshires have beaten the barn once in 12 years, at Amherst, the other 11 went to Holsteins and their grades, once in five years, at Ottawa, which is an Ayrshire stronghold, and once in 10 years at Guelph, and that they fully appreciate the great honor in occasionally winning over such a celebrated dairy breed is evident by the attention they call to it in the press.

An regards world's milk and fat records Ayrshires are simply not in it. The Wonderful 2 year old "Ayrshire World's record" of 11,676 lbs milk that we hear so much about is just slightly over half as great as the real world's record of the Holstein heifer K. P., Marion Lady of 22,106 lbs milk and 818 lbs fat in a year, or the Canadian record of Lulu Keyes with 19,288 lbs milk or Perry Boanerges Ormsby with 666 lbs fat.

Two Holstein cows have exceeded 27,000 lbs milk in a year in official test, and large numbers have exceeded 20,000 and better. However this is not all, the Holstein's great superiority over all other breeds of dairy cows lies in the fact that this breed contains a much larger percentage of good cows than any other breed, right down through the pure breeds and on down through the grades. This is why the breed is outstripping any others in growth as shown by the published records of registration and transfers at the breeder's annual meetings. This is why the dairymen, patrons of our

cheese and butter factories use so many more Holstein bulls for grading up their common herds than any other breed, and this is also why milkmen will pay more money for a Holstein grade than a grade of any other breed.

The prices sometimes paid for a high class show herd of pure breeds is not a true indication of the popularity of a breed, but the prices paid by the men who use them to make a living will give the real value, and milkman and dairymen will pay more money for a Holstein grade than grades of other breeds.

During the past 15 months I have bought and sold some 34 head of Holstein grades clear of the number bred and raised at "Riverdale" at prices ranging (in only one instance as low as \$45.00) to \$85.00, the price paid the farmers being an average of considerably over \$60.00, all dairymen I bought two good grades of another breed at a low figure this fall, forward in calf in splendid fit, young and for their kind, good type cows, and when quoting to prospective customers offered them in every instance at nearly 50 per cent less than Holstein grades, seven of which were accepted, but I was forced to dispose of them at home.

At Amherst, late dairy test where every 1st (but one 2nd) and most of the lesser prizes were won by Holstein grades, a Sydney milkman came up and paid big money for 5 head. At Guelph dairy test \$320.00 was paid for 2 Holstein grades and at several auction sales \$150.00 had been secured. The following clipping from a farm paper under the heading, "Why Holsteins Are Popular" gives a very good reason why Holsteins are the most popular dairy grades with the majority of Ontario farmers:

"Probably the most prosperous farmer in the rich County of Brant, Ont; is S. G. Kitchen. The ownership and directorship of a half dozen farms does not afford scope for his keen business instincts, and he is heavily interested in manufacturing and other enterprises more or less connected with Agriculture.

For years Mr. Kitchen owned a large cheese and butter factory and amounts of milk and fat supplied by his patrons in proportion to the number of cows kept. It did not take long to convince him that owners of Holsteins and Holstein grades were the men making the most out of the cows.

About seven years ago Mr. Kitchen purchased some 25 pure bred Holstein heifers as the foundation of a working dairy herd. No effort has been made to sell stock all the heifers being retained in the herd.

After trying nearly all the popular breeds Mr. Kitchen is thoroughly satisfied of the superiority of the Holsteins as machines for profitably converting the rough feeders and other feed stuffs commonly found on Canadian farms into first class milk.

(To be Continued.)

consumption of dairy products in Canada was accounting for the demands in exports and that the demands for ice cream were cutting in on the supplies to factories and creameries. He pointed out that a few years ago the Province of Alberta and Saskatchewan were exporting over 100,000 lbs., and that now, while producing five times as much as they did then, are not importing from Eastern Canada in large quantities. "I am satisfied," he concluded, "that our home consumption of milk and its products is now easily up to the \$100,000,000 mark."

TURNIP FLAVOR IN BUTTER

A good way to prevent the taint of swedes or turnips appearing in butter is to scald the cream a couple of days before churning. This is done by putting the cream vessel into a furnace of boiling water, and allowing it to remain there until the cream reaches a temperature of 170 deg. F. The cream must be frequently stirred during the process, or the sides and top will be many degrees warmer than the interior. When the cream is removed from the furnace, it should be passed through a strainer, and then be put in a place where scalded cream does not strain easily after it gets cool. But it is a mistake to give everything to the cows which comes out of a root field, as many do. Roots which have been forced too fast by abundant dressing of artificial manure are often decaying when they are brought into the cow shed, and food of this kind is not suitable for milk cows. Decayed leaves, too, are sure to taint the butter worse than wholesome roots are given. But if sound swedes alone are given in moderate quantities, the milk supply will be maintained, and if the cream be scalded as above directed, there need be no fear of taint.—Farm and Home, England.

THE MARKETS

TORONTO.

Exporters.—Several lots of steers of export weights and quality, sold from \$6.75 to \$7.35, but they were bought by the local abattoirs.

Butchers.—Choice picked lots, and even lads, sold from \$6.60 to \$6.90; good, \$6 to \$6.50; medium, \$5.40 to \$5.90; common, \$5 to \$5.30.

Stockers and Feeders.—Stockers, 600 to 700 lbs. each, are worth from \$4.75 to \$5.15; feeders, steers, 800 to 900 lbs., are worth from \$5.25 to \$5.50.

Milkers and Springers.—Receipts of milkers and springers were fairly liberal, and good to choice cows were in good demand, but common to medium were slow sale, and at unchanged prices. Common and medium cows sold at \$40 to \$55 each, while good sold at \$60 to \$75, and a few of extra quality brought \$80, \$85 and \$90 each.

Sheep and Lambs.—Receipts of sheep and lambs were moderate, while the demand was strong, the result being that prices advanced from 25c. to 40c. per cwt. Sheep—Wethers sold at \$4.75 to \$5.50; rams and culls at \$3.50 to \$4.25. Lambs sold from \$8 to \$9 per cwt., the bulk of sales being made at \$8.75.

Hogs.—Packers consider that they have been paying too high, compared with the outside markets, Canadian prices being over \$1 per cwt. higher than the Chicago and Buffalo quotations. The bulk of the hogs were bought at \$8.50, fed and watered, and \$8.15, f. o. b. cars, although \$8.60 was paid for about 700 hogs during the week.

Horses.—The market for horses last week was a little more active, and for the first time this winter there was considerable inquiry by Western dealers, but prices seem to be too strong to suit them. Prices, however, are reported a little easier and as follows: Drafts, \$260 to \$300; general-purpose horses, \$225 to \$280; express and wagon horses, \$200 to \$240; drivers, \$100 to \$175; serviceably sound, \$30 to \$100.

COUNTRY PRODUCE.

Butter.—Market steady. Creamery pound rolls, 32c. to 34c.; creamery solids, 30c.; separator dairy, 28c. to 30c.; store lots, 24c.

Eggs.—New-laid, 30c.; cold-storage, 26c. to 27c.

Cheese.—Large, 14c.; twins, 15c.

Poultry.—Receipts were moderate, but quite equal to the demand. Prices ruled steady to strong, as follows: Turkeys, 22c. to 25c.; geese, 14c. to 16c.; ducks, 16c. to 18c.; chickens, 16c. to 17c.; fowl, 12c. to 13c.

SEED.

Alsike No. 1, per bushel, \$11.50 to \$12.50; alsike No. 2, per bushel, \$10.50 to \$11; alsike No. 3, per bushel, \$9.50 to \$10; red-clover seed, Ontario-grown, \$7 to \$9 per bushel; timothy No. 1, per bushel, \$1.90 to \$2.25; timothy No. 2, per bushel, \$1.25 to \$1.60.

HIDES AND SKINS.

No. 1 inspected steers and cows, 14c.; No. 2 inspected steers and cows, 13c.; No. 3 inspected steers, cows and bulls, 13c.; country hides, cured, 12c.; country hides, green, 11c.; calf skins, per lb., 15c.; lamb skins, \$1 to \$1.25.

MONTREAL.

Live Stock.—A very fair trade took place in cattle last week, and prices held about steady. Best steers sold at 61c. to 64c. per lb., while fine brought about 51c., medium 51c. to 54c., and common ranged from 4c. to 5c. Canning stock sold down to about 3c. per lb., and there was a fair export demand for them, several carloads being shipped to the United States. Lambs held steady at about 71c. to 74c. per lb., and sheep at from 4c. to 51c., according to quality. Calves sold at \$3 to \$5 for common, and up to \$12 for fine. Hogs showed little change, selects selling at 9c. to 94c. per lb., weighed off cars.

Horses.—The demand for horses was very light, but the supply was not large, so that prices were steady, as follows: Heavy draft, weighing from 1,500 to 1,700 lbs., \$300 to \$400; light draft, 1,400 to 1,500 lbs., \$225

BUFFALO.

Cattle.—Prime steers, \$8.75 to \$9; butchers', \$6 to \$8.70; heifers, \$4.50 to \$6.50; stockers and bulls, \$4 to \$4.75; shipping, \$7.50 to \$8; heifers, \$4.75 to \$8; cows, \$3.25 to \$7; stockers and feeders, \$4.50 to \$6.75; fresh cows and springers, \$35 to \$75.

Hogs.—Heavy, \$7.75 to \$7.85; mixed, \$7.85 to \$8; Yorkers and pigs, \$7.90 to \$8; roughs, \$6.90 to \$7.10; stage, \$5.50 to \$6.50; dairies, \$7.10 to \$9.

Sheep and Lambs.—Lambs, \$6 to \$9.25; yearlings, \$5 to \$8.25; few, \$3.25; wethers, \$6 to \$6.40; ewes, \$3.50 to \$5.75; sheep, mixed, \$4.50 to \$6.

THE TURF

CRUICKSTON STOCK FARM.

No trotting nursery in the United States is better equipped or more beautifully situated than Cruickston Stock Farm, the establishment maintained by Miss Katherine L. Wilkes at Gait, Ont., Canada, and while the winters there are longer and colder than they are in the United States, it has been demonstrated that colts, the equal of any foaled in Kentucky, can be raised in that northern country. During the season of 1910, three yearling trotters, foaled at Cruickston Farm, entered the 2,300 ft. test, that had never before been accomplished by a stock farm south of the Canadian border. These three yearlings were by Kentucky Todd (3) (2,081), the son of Todd (2,141), and Paronella, dam of nine, including four 2.10 trotters, by Parkville 6050, son of Electioneer.

Until the past season, no stallion had as many as three yearlings in the standard list, and to Kentucky Todd is now credited four youngsters of that tender age, with records from 2.24 to 2.29, as follows: Princess Todd (2,241), Menzo Todd (2,261), The Baronet (2,281) and K. L. Todd (2,291).

Princess Todd, as a two-year-old, won three futurities: the American Horse Breeder, the Horse Review and the Kentucky, and was the champion of her age in 1912, retiring last fall with a record of 2.12. This season, she was a contender in six of the feature events for three-year-olds; won the Horsemanship Futurity, worth \$10,000, the Kentucky Stake worth \$2,000; was second to Baldy McGregor (2,061), when that colt took the record in the Champion Stallion Stake at Lexington, going her mile in 2:07.4; divided second and third money in the Breeder Futurity and stood fourth in the summaries of both the Review and Kentucky Futurities. It was in the latter event that Princess Todd demonstrated she is as game a filly as was ever harnessed, by finishing head and head with the winners of the third, fourth and fifth heats in 2:08.1, 2:08.1 and 2:09.1. Her record of 2:09.1 was made at Columbus, Ohio, during the second week of the meeting there.

The Baronet was a 2.15 two-year-old and trotted in 2.12 this past season, while K. L. Todd went a mile in 2:14 early last summer. The latter, together with Princess Todd and two or three other colts belonging to Miss Wilkes, are now in charge of Thos. W. Murphy at Poughkeepsie, N. Y., and will be raced by him in 1913.

Kentucky Todd has been located in Kentucky for two years, at W. C. Estell's Elmhurst Farm, near Lexington, and will again be located there the coming season. He has been generously patronized by those who have mares in the Blue Grass country and now has many foals of great promise in the hands of good trainers, who will develop them.

HORSE NOTES.

The annual midwinter sale will be held in New York on Feb. 3, 4 and 5th. A large consignment of horses is expected including 250 stallions.

horses. While this sale is not nearly as important as the November sale yet the attendance and offerings are quite worth a visit. It is interesting to look over the ads—and see the speed bristling from every line—on paper.

Another good stallion has found his way to Europe. This time it is Billy Burke 2,031. He has been purchased by the Imperial stables of Moscow. The Russians are going in to the trotting game very heavily—in fact it is becoming the rich man's pastime which is a good thing for the breeders of the United States.

Hammond Kelly has received two good offers for his handsome stallion Mayor Todd. Ham has turned them down and will give our breeders a chance to mate with the son of the great Todd. Mr. Kelly has always been considered a good judge of horseflesh and when he bought Mayor Todd in the Garden he showed excellent judgment in the opinion of those who have seen him. With the breeding boom which is sure to come this year Mr. Kelly should have no trouble in securing a big return on his investment.

The MacKinnon Drug Co. is making a move which should appeal to horse-owners. They are installing a "Horse Sales Register" in which you can list any horse you have for sale free of charge giving breeding, price, etc. Buyers in need of horses will thus be in a position to get in touch with sellers. There are hundreds of people wanting horses, also the same number with horses for sale. This register will enable them to get together. Don't fail to make use of it if you have an animal for sale.

T. C. Edgett has sold his handsome Oakley Baron mare to W. S. Newson for a long price. She is every inch a trotter capable of going into the list at any time.

Ice records do not act as a bar or constitute a record. Therefore the 2,131 world's record recently made by Grattan Royal at Montreal will not prevent him from starting in the slow classes on clay. He should have a cinch in the slow stakes.

Baden 2,051 by Bingara has arrived safely in Russia and has been placed in Will Caton's stable. \$290,000 in purses for 1913 is the amount hung out by the Vienna-Austria trotting club.

A Western circuit starting at Calgary early in June and ending at Winnipeg with aggregate purses of \$250,000 is arranged. Wouldn't that make a M. Province horseman's mouth water?

THE GOLDEN CROSS.

The golden cross of the harness world is the Bingara-Kremlin cross. Golden because of the money won by its sons and daughters in thrilling hard fought contests on American tracks.

Bingara's sons are noted for their gameness, strength of bone, speed and stamina.

Bottom 2,231 a product of the "golden cross" is one of the hand-somest and biggest products of that cross.

Bottom 2,231 standard and registered combines the blood of the greatest crosses on earth. He is young and should prove one of the greatest stock horses ever brought to this Province.

Kadika the dam of Bottom 2,231 weighs 1200 pounds. She is a daughter of Kremlin 2,071 and is a great brood mare being also the dam of Biola (3) 2,181 and Berka 2,141 full sisters of Bottom.

Jack Irving in a recent letter says: "Wait till you see Bottom—you will see a picture. He is a very fast horse with very rapid action. He will please you. You have secured a great horse," etc., etc. These words from the greatest trainer in the Maritime Provinces means much—for "Jack" knows what he is talking about.

Canadian horsemen express the opinion that the world's record of 2:11, made by The El (2,021), in an effort against time on the Ottawa river a number of years ago, is

(Continued on page 8v.)

Horse Medicines

are our particular strong point. We can help you gratefully if you have a sick or bleached animal. Remember we have \$350.00 worth of horse flesh ourselves and have the experience in caring for them. We handle every reliable horse and cattle medicine.

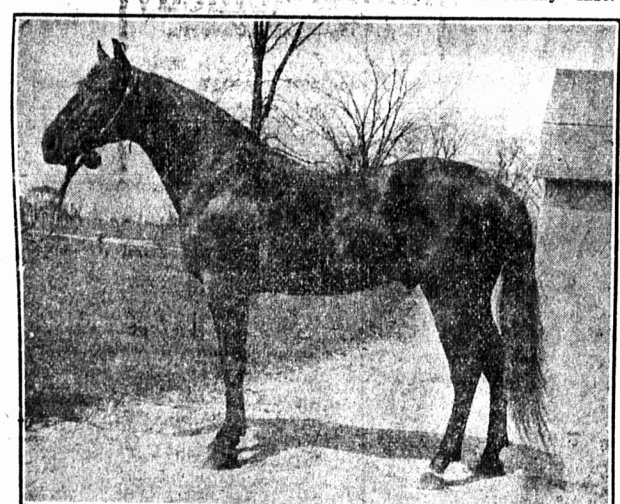
Condition Powder 25c a tin. Stock Foods of all kinds—Sheep Dip 25¢ a bottle. Absorbine for puff, etc., \$2 a bottle.

Blisters, Tonics, Cough Powder, etc. in fact everything for the Horse.

THE MacKINNON DRUG The Rexall Store

C. G. Geo & Kt Sts Owners of the following Standard and Registered animals: Ruby Rexall by Kalol, Prismo Major by Moko, Pretello, Prodral, Bottom 2,214 by Bingara, Th: Rexall Girl by Bingara (s), Dominion D 2,203,4, Iona G 1 2,191-4, 1st Eif

THE ROYAL BRD STALLION (Standard Registered 47893) Trotter; trial, 2:18; last half, 1:08. Shown at the Short Course in Agriculture, on Thursday Inst.



Actual photo of MAYOR TODD, taken at the Johnson Farm, a few days previous to sale. Mayor Todd was foaled in 1908, is a handsome brown stallion, stands 15.31 hands and weighs 1100 lbs. Owned by HAMMOND KELLY, Charlottetown, P. E. I., Canada.

The Golden Cross

The Bingara-Kremlin cross is the golden cross of the horse world. No other cross in all the world's trotting history, has won in one year, the amount this cross did in 1912. No other cross has produced such a percentage of trotters from each crop of foals

Bottom 2.23 1-4 (Standard and Registered Stallion) Dam of Be ka 2.141-4 Biala (3) 2.18 2-2 Bottom 2.23 1-4

BINGARA is world's record sire of 28 performers at 11 years. He is the greatest money winning sire of 1912. He is a sire of early and extreme speed 28 of his 2 v r o' d s having trialed in 2.30 or better. His sons are breeding on and producing early speed. Right in Halifax BARING 2.18 1-4 at 6 years is the sire of Baring's com t (2) 2.28 m r s i t e record. KREMLIN'S daughter's produced trotters that won over \$50,000 on American tracks last season. No other sire of dams ever equalled this. So you see BOTTOM has the blood that gets the money.

BOTTOM is an extremely handsome and stylish horse, large enough to sire handsome carriage horses, and with a blood in itance which is bound to produce early and extreme speed. If you have a good brood mare don't let this opportunity pass to mate with the most talked of family in the world today—the BINGARA-KREMLIN cross. By breeding to BOTTOM you are receiving an impetus from the BINGARA boom which is sweeping over the trotting world. Service fee \$15 for season.

Will be in Charlottetown about Feb. 10th.

The MacKinnon Drug Co. OWNERS