

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

SAFEGUARDING THE POTATO INDUSTRY OF PRINCE EDWARD ISLAND

Some particulars in regard to the campaign against Potato Canker now being conducted under the direction of the Dominion Botanist.

(By H. Harley Selwyn, Inspector for the Division.)

The potato crop in Canada now approximates in value some fifty millions of dollars annually and of this amount Prince Edward Island contributes her generous quota. Great as this crop may seem and with the prospects of its being doubled and trebled within the next few years through the labors of the farmers now crowding into our borderless western lands, there is every reason to believe that we are Potato Canker (Chrysothrix endobiotica Schilb) a disease now widespread in Europe and causing incalculable harm, introduced into Canada and allowed to spread in every province of the Dominion the production of the greatest food products in the world today, would practically become prohibitive.

APPEARANCE OF THE DISEASE.

Tubers affected with the disease are covered with nodular excrescences which may in some cases be larger than the original potato itself. This is caused by the spores of the disease, which are reproduced by millions, attacking the eyes of the potato and the irritations incited by these living organisms in the potato produce a prolific outgrowth of enlarged (hypertrophied) cells which are again attacked from the outside by means of minute swarm spores of the fungus.

As still more advanced stages occur, when the fungus has utilized every particle of food stores in the tuber and has reduced it to a brownish black soft mass giving off a very unpleasant putrefactive odour. This is the most dangerous stage of the disease. Tubers in this condition cannot be harvested whole but break into pieces and thus the brownish pulpy mass consisting almost entirely of the spores of the fungus, broken up, the spores are distributed by millions and the land badly infested for numbers of years.

No doubt many of you have observed through the medium of our newspapers from time to time of reports concerning potato famines perhaps in a certain district of Ireland or in some one of the European countries, reports which are often accompanied with particulars as to the misery through hunger brought about by such conditions. No doubt you too have laid down the paper with the reflection that apparently these scourges are confined to distant lands. Such unfortunate to relate is not the case. Potato Canker has now been definitely located on the side of the Atlantic through the efforts of H. T. Gorton, Dominion Botanist to the Department of Agriculture at Ottawa. This first discovery was in Newfoundland in 1909 where the potato crop is already seriously threatened with extermination. But conditions are growing worse. Owing to the light crop of potatoes in the Dominion during the year 1911, the importation of potatoes was made necessary. Many thousands of bushels were brought over from the British Isles and European countries and sold throughout Canada. Many of these found their way into the ground as the farmers, perhaps not fully aware of the dangers they ran of inoculating their soils with an incurable disease and anxious to try out a "new variety" (often recommended and charged for highly by the merchant handling them to further his own ends) in many instances gave them a trial along with their regular crop.

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The Dominion Botanist, fully aware of the great danger threatening our country in general if such methods were resorted to, had arranged to have sent broadcast throughout the land literature bulletins, notices, etc., warning the farmers of the impending danger and at the same time emphasizing to the Dominion Government the necessity of a law prohibiting the importation of foreign stock. In many instances undoubtedly direct from disease infected areas. In July 1911 this Act came into effect but hardly in time to be of complete service. The season of importation was at an end and everything in regard to the dangers of seed potatoes was for the time quiescent. But, through the influence of the advertising campaign conducted as above stated, during the preceding year, the Provincial Legislature will take every possible precaution to keep out contamination of any kind and in that way maintain a district where potatoes can be got for seed from which there is no danger of disease. In this way Prince Edward Island could easily become a centre for clean seed and so increase the industry. Special attention should however be given to the shipping trade with Newfoundland. Bags containing potatoes leaving the Island could easily be used by the farmers of Newfoundland to contain their crops and when in time returned might be sufficiently dirtied with soil infected with canker spores, which when introduced to the soil on our own stock, might be the nucleus of endless trouble.

Small beginnings sometimes have mighty endings and this saying is only too true of many forms of pests which have from time to time been introduced into America from foreign countries. Mention might be made as an example of the millions which the United States of America of Agriculture is expending annually in its attempt to control, let alone exterminate, the many hundreds of insect pests and diseases which have now become so widespread. The Brown-tail moth which has spread far and wide in the New England states and is now even threatening our provinces of Nova Scotia and New Brunswick is one of these and with a view to preventing its further advance in Canada and the accompanying demoralization of the fruit crop, the Division of Entomology under the able head of Dr. C. Gordon Hewitt has for the past three years, been carrying on a systematic crusade against its encroachments. Field officers are continually in the field during the winter months searching out and destroying every nest or egg-cluster to be found on certain forms of vegetation.

With a view to assisting materially in this work a number of Inspectors have been appointed to the Division of Botany and it is the duty of these men to see that the rules and regulations embodied in the Destructive Insect and Pest Act made law in 1910 and under which Potato Canker is listed, are carefully carried out in all localities where outbreaks of the disease are known.

These regulations may be summed up concisely as follows:—

- 1. All diseased tubers must be destroyed.
2. Apparently sound tubers may be fed to the stock after boiling thoroughly to destroy all trace of disease. (In this way the farmers need not be deprived of the entire crop). The boiling of this food is imperative as otherwise the organisms of the disease will pass through the animals unharmed and be spread in the manure, the following year of these men upon which the potatoes have been grown should be thoroughly limed or if lime is unobtainable treated to a 1 to 800 solution of Bichloride of Mercury applied by means of a spray.
4. At time of treating the land the greatest care should be taken that no soil containing the disease bacteria be carried by boots or implements to other portions of the farm.
5. No seed potatoes must on any account be sold or removed from the premises. Neither must any of them be used for seed by the man himself another year.
With the careful following of these and minor precautions the disease it is to be hoped can be held in check, but the co-operation of the farmers is absolutely necessary.

THE CAMPAIGN IN PRINCE EDWARD ISLAND
Realizing the importance of the

potato industry in P. E. I., and also that the introduction of this disease could be readily effected through the interchange of commodities in general with Newfoundland besides the presence of trading vessels from many trans-Atlantic ports, the Dominion Botanist has sent two inspectors to the Island during the winter of 1912 to carry on a system of visitation and inspection amongst the farmers with a view to determining definitely whether or not canker might already be present, also with a view to obtaining a general report on the condition of the industry. Speaking from actual observation and from coming in contact with many thousands of farmers throughout the various districts visited the writer is pleased to say that as a general rule the farmer is most anxious to do everything in his power to assist in any way he can and wishes to learn full particulars about this new danger. The fact that the disease is ten times more serious than the "Bugs" ever could be impresses them greatly and causes many to say that there would be little use in trying to continue potato growing were such a state of affairs to obtain. Such unfortunately is only too likely to be the case if the greatest care is not taken.

When as complete an inspection as possible has been made of the potato crop and the farmers everywhere have been made thoroughly acquainted with the nature of the disease and the only remedies applicable and no serious outbreak of disease can be located it is to be hoped that the Provincial Legislature will take every possible precaution to keep out contamination of any kind and in that way maintain a district where potatoes can be got for seed from which there is no danger of disease. In this way Prince Edward Island could easily become a centre for clean seed and so increase the industry. Special attention should however be given to the shipping trade with Newfoundland. Bags containing potatoes leaving the Island could easily be used by the farmers of Newfoundland to contain their crops and when in time returned might be sufficiently dirtied with soil infected with canker spores, which when introduced to the soil on our own stock, might be the nucleus of endless trouble.

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THE CAMPAIGN IN PRINCE EDWARD ISLAND
Realizing the importance of the

cocked was the best of the bunch. Geo. Lightner's big display was well patronized and he deserves great praise for having such a fine collection of birds.

The Orpingtons was a small class but some nice hens, especially the first hen. The Orpingtons are a grand fowl and better layers (as pullets) don't exist.

In Leghorns, especially brown, the judge had his hands full, handsome birds they are. This variety is gaining great favor on the Island and the breeders have chosen wisely.

Some of the whites were nice, but not as large as I've seen or like. The R. I. Reds were nice birds, and look to be gaining favor also on the Island. They are a great utility bird and lay abundantly.

The Bantams were, as usual, a great attraction and the pair of white Africans had the quality of the bunch.

There were several other good classes in the show and amongst them some real classy birds.

The judge seemed to have pleased nearly all of the exhibitors, although it was by "score card" which is known as the "kick" maker.

Our show will never give entire satisfaction until comparison judging is given it, and, after asking several of the breeders which they preferred, each one turned down the score card system of judging.

Much credit is due the painstaking President and Secretary of the Association on the success of the show and I don't believe the Association or a show would exist but for the efforts of the former.—C. P. Thorne.

THE STORAGE ROT OF POTATOES

(By H. T. Gussow, Dominion Botanist.)

For some months past an inspection of stored potatoes has been carried on by the Division of Botany, especially of potatoes among which the presence of potato canker or powdery scab was suspected. During this work it was recalled that the losses from the various "rots" affecting stored potatoes were considerable, and of far greater economic importance than is generally realized. In some instances from 3 to 40 per cent. of the potatoes had become quite useless, owing to various forms of dry or wet rots. This observation made so early in the season is had in view of the fact that the "storage rot" of potatoes may be induced by a variety of agents. To begin with it must be understood that a perfectly "ripe" potato providing, of course, it is free from blight or other diseases, is less liable to be affected by rot than those harvested too early. This statement raises the question: When are potatoes ripe, i. e., in the best condition to dig? Digging potatoes depends largely upon individual conditions prevailing at the various farms; in wet land it is advisable to dig them earlier than on dry land, they will also have to be dug at a later date when badly affected by blight, than if they were free from it; but, in general, potatoes are ready for digging, under normal conditions, when the stalks have died down and hence no longer take an active part in the manufacture of the reserve food which is stored in the tubers. Here it is where the psychological moment may be missed, for there are potato diseases such as late blight, early blight, rhizoctonia, or even the attacks of the flea beetle or potato bug, which may cause the premature death of the stalks, and which may be mistaken for their normal "death" rot. These conditions prevent the potatoes underground are not "ripe", however long they are left in the soil.

A ripe potato has all its cells well supplied with food material, i. e., starch, and the skin adheres firmly to the tuber when the finger or thumb is applied to the surface with a firm rubbing movement. When the skin is easily detached during the operation the tubers are not ripe and should be left in the ground, providing the tops are free from disease. It is an unfortunate fact however that the largest percentage of potato fields are attacked by late blight and the stalks are killed prematurely. In this case the tubers will also have become infected and are liable to decay in the pit or cellar, unless certain precautions are exercised. The second factor favoring and indeed inviting decay is where potatoes are lying too close to the surface of the ground in the field. Such tubers are easily touched by frost, and if not separated at once from those unaffected, they are sure to decay when placed in storage. Another prominent source of rot in storage are the apparently unavoidable injuries during harvesting of potatoes, especially when the potato digger is used. However, slightly a potato may appear to be damaged, as soon as the injury extends below the skin, the tissues rich in available food are open to an invasion by spores of fungi and bacteria, which find in such wounds a very suitable feeding ground. A large number of such potatoes are picked up, not finally deposited in the bin or pits. The above mentioned factors, involving more or less mechanical or physical features deserve, nevertheless, to be taken into careful consideration. The conditions described on the potatoes themselves which may be regarded as factors weakening the power of resistance towards storage rot and what is more their exposure in their impaired condition to "health" to the favorable conditions for the development of bacteria and fungi which are ever present in bins, pits or the places of storage, should certainly be regarded as the most prominent factors responsible for the largest amount of losses occurring. What is necessary to start into action the myriads of fungus spores and bacteria present everywhere, and so destructive to stored potatoes, is of any kind? Is it not the moisture, warmth, absence of ventilation and light that encourages decay

and rot, and are not these conditions fairly constant in all pits, bins, etc., where potatoes are stored? Besides the excellent food in the potato is ready prepared for the use of the ravenously feeding organisms of decay. Giving these lines in a moment's thought and consideration, will the majority of readers not own that these very conditions prevail in their own cases. Have your potatoes been dug at the right time, were they quite ripe? Were they touched by frost or damaged by the digger? Is your cellar or pit well ventilated? If so, you have nothing to fear from storage rot, for then you are no doubt awake to the necessity of preventing late blight and other diseases. But those who must own up to one or more similar "sins of omission" had better turn to their potatoes at once and make a hand-picking thereof, taking out all potatoes that show any of these signs.

The question is frequently asked by farmers sending samples of potatoes affected with storage rot whether there is any treatment to prevent it from spoiling their potatoes. I am afraid there is nothing to be done to stop the decay once it has set in, beyond the fact of hand-picking them, and the removal of a mass of diseased potatoes, providing good ventilation and using for storage a cool place.

In the preceding lines I have spoken about the result to be expected from unripe, frozen or damaged potatoes and have pointed out that without being actually diseased they are liable to suffer considerable losses. But how can one quickly pick the decayed rot when the tubers have been attacked by late blight and other diseases, eventually finding their way into the tuber.

There are a number of distinct parasitic diseases of the growing potato which will start a "storage rot" and which will spread by contact from diseased to sound tubers. Late blight (phytophthora infestans) is the worst offender in this respect. The amount of late blight present in a field largely depends upon the successful and rapid control of the potato bug. When the potato bug has been allowed to gain a foothold, even if only for a short period, the vines are generally so much injured that it is almost impossible to keep the late blight from playing havoc.

In our potato experiments carried out under my instructions at the Central Experimental Farm, Ottawa, with the view of producing potatoes as free from disease as possible under practical farming conditions, we secured from the four acres grown 1,770 bushels, which averages about 440 bushels per acre, by no means a light yield; but notwithstanding careful spraying the potato bug had done enough damage before it was controlled, so that late blight appeared and still caused far too much loss. Unless spraying is begun very early in the season late blight is difficult to control and often about August and September the potato tops have been killed. Thus not only is the manufacture of the reserve food to be stored in the tuber discontinued and the tubers remain unripe, but the disease spreads into the tubers. When this has taken place the potatoes may be left in the ground for a week or so longer, when the root will be more apparent, but when digging the potatoes they should be killed up on the field, covered lightly with straw and earth until they have dried up well. Before taking them in, the potatoes should be carefully hand-picked to remove all diseased or injured tubers.

It is hardly necessary here to mention other disease affecting the potato plant, for whatever their nature, as soon as the tubers become affected it amounts to the same thing, they must be picked out to prevent storage rot. Diseases like potato rot or little potato (rhizoctonia, fusarium) rot and others which may infect the potato tubers must be controlled and prevented by the use of good sound seed. When the potato tuber is once affected it is very liable to decay after being stored.

I have concluded in the term "storage rot" a number of organisms causing the various forms known to the plant pathologist. There are a large number of different bacteria producing a soft or wet rot, and all are sources of fungi, which find the prevailing conditions most favorable for their growth and development, and produce dry rots and decay of various forms. Whatever form of rot may be developing in storage the prevention of losses will be the same in every case, and may be summarized in the following suggestions:

- 1. Sound, ripe and undamaged potatoes will keep in this condition unless brought into contact with tubers showing signs of decay.
2. The prevention of rot losses in the storage must begin in the field, where the growing plants should be regularly sprayed to prevent diseases likely to affect the tubers.
3. Potatoes should be dug when ripe if possible. Care should be exercised to prevent damaging tubers when digging. Frozen and damaged potatoes, as well as those showing signs of disease, (with the exception of common scab) should not be placed in storage with sound ones, but must be carefully picked out.
4. Bins, pits, cellars should be cool, not above 40 degrees at any time, and good ventilation should be provided.
5. The stored tubers should be overhauled at intervals, and any potatoes showing signs of disease should be removed.
If the above suggestions are carried out not only will the losses in storage be wholly prevented, but the chances of carrying certain diseases over to next year, by the use of un-sound tubers, will be eliminated. In view of the fact that potato canker and powdery scab, two European potato diseases, may at any time become established in the Canadian potato crop through the use of infected tubers, this latter precaution becomes the more important.

REPORT OF THE DOMINION FRUIT INSPECTOR.

The following excellent paper was read before the recent meeting of the Fruit Growers' Association held in Charlottetown.

I beg to offer the following report on my work as Dominion Fruit Inspector for the present year. In order that this report may be as clear, concise, and short as possible, I have divided it into three headings which shall be treated in the following manner: Educational work, inspection work and General Remarks.

EDUCATIONAL WORK.

I took up my duties as Representative of the Fruit Division of Ottawa in April, arriving in Charlottetown April 19. This being my first visit to Prince Edward Island I was totally ignorant of local conditions and, consequently, was unable to formulate any definite plans for the furtherance of fruit growing. In consultation with the Commissioner and Secretary of Agriculture it was decided that a series of demonstration orchard meetings would be of great assistance in bringing me into touch with the more prominent fruit growers. Accordingly some sixteen of these meetings were held in various parts of the Province. At these meetings demonstrations and instructions were given in pruning, preparation of Lime Sulphur, and spraying. Short talks on the care and cultivation of orchards were also given. Following these meetings I spent considerable time in paying personal visits to various sections, calling on different members of those communities, studying their conditions and generally getting acquainted. I soon found that I should need assistance if my work were to be at all extensive. Accordingly the Co-operative Fruit Co., at my suggestion, engaged three men to do the spraying in the Montague, Kensington and Margate sections. Two sprays were given in the various orchards and the work was satisfactory in every way. The orchardist was charged 25 cents per acre for the work and 2 cents per gallon of spray mixture applied. He was also expected to board the man engaged by the Association and assist in the work. During my visits I had been watching forwarders that would be suitable for demonstration purposes. On talking the matter over with the Commissioner of Agriculture it was decided to take the orchards of Wm. Alexander, Cardigan; Albert Schramm, Central Beedee; and Jas. McDonald, Hopefield. It was found that the orchard of Jas. McDonald, Hopefield, was unsuitable and was consequently dropped. Owing to the lateness of the season and advanced condition of these orchards nothing was published, the intention being to wait until next year when they could be given the proper attention from the beginning of the season thus giving more accurate results. Other duties this fall and had weather prevented me from giving these orchards as much attention as I otherwise should have done.

During July and August I visited as many strawberry growers as possible, studying the varieties, systems of cultivation, and other factors in order to obtain all available information on this very important branch of fruit growing. At the beginning of the harvesting of the large fruits I visited many orchards giving instructions and assistance in the packing of apples in barrels and boxes. In co-operation with the local Department of Agriculture the attempt was made to find markets for the apples, early varieties particularly. We were moderately successful in this work and, consequently, will be in a better position to deal with this important question next season.

During the month of October it was deemed advisable to make packing centres at Charlottetown, Montague and Kensington. It was accordingly advertised that I should be in these places on Mondays, Wednesdays and Fridays respectively, and would give instructions regarding the grading, packing in barrels and boxes and marking of packages as required by the Inspection and Sale Act. The men employed by the Co-operative Fruit Co. earlier in the season were not available for this work. During the month this program was carried out but its success is questionable owing to the business of the season and number of necessary handlings of the fruit received before being ready for the market.

In this work I was very ably assisted by Norman McLeod, as well as assisting in the packing centres Mrs. McLeod made several personal visits to different orchards and the quality of his work was thoroughly satisfactory. Another branch of work in which I was engaged was the judging of fruit at the fairs and exhibitions; I assisted in the judging at St. John, N. B., Summerside, Charlottetown and Georgetown. And I would like to say that, in my opinion, the fruit on show at the St. John Maritime Exhibition and Amherst Winter Fair would not compare at all favorably with that shown at the county fair at Georgetown.

INSPECTION WORK.

I endeavored to inspect as many lots of apples for domestic and foreign trade as possible, and while the quality of such fruit leaves much to be desired I am pleased to say no convictions for violation of the Inspection and Sale Act have been necessary up to the present. The majority of the fruit exported gave evidence of being fairly well handled and graded. I regret to say, however, that some shipments, made by men who are considered good fruit growers were very bad indeed. The fruit contained in these shipments was over ripe, poorly graded and poorly packed. These apples were put on the old country market, arrived there in poor condition, and consequently brought a poor price. Considering that such fruit gives Island apples a bad name, it is the duty of every fruit grower on the Island to counteract such a reputation, as far as possible, by only putting up a first class article.

Such imported fruit as I have seen

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GENERAL REMARKS.

The fruit crop of Prince Edward Island was very fair this season. The early varieties yielded well, but the winter varieties carried a short crop. Apple scab and codling moth was considerable in evidence and, while the former was no doubt largely due to the very wet season, we cannot hope to properly control either until better methods of pruning, spraying and cultivation become more general. The necessity for spraying could be particularly noticed in the previously mentioned packing stations where a large percentage of otherwise No. 1 fruit had to be rejected. Such fruit of course was a dead loss to the producer.

The thinning of fruit on the trees is another operation that should be more widely practiced.

I would like to say with reference to markets that the early varieties can be most profitably handled in boxes. In fact I may say it is the only way to profitably handle them. This fruit being soft and of poor keeping quality will not stand handling in such large quantities as in barrels. Also a barrel of such fruit is too much for the ordinary consumer, whereas a box just suits his needs. The fall varieties should also be packed in boxes and even the winter varieties bring better prices in boxes than in barrels.

Box packing is generally considered a very difficult operation. On the contrary, however, a little instruction combined with practice will make any man sufficiently expert to put up his own fruit satisfactorily. Such instruction and practice will be given at the Short Course to be held in January and I trust it will be taken advantage of fully.

I cannot speak too highly of the Co-operative Fruit Co. of Prince Edward Island, the annual meeting of which we are attending today. It has for its officers trained and capable men who are quite competent to deal with all problems that may arise and who, I am sure, with a more united effort on the part of its members will make the P. E. I. Fruit Growers' Association stand first in its class even as the Province of P. E. Island is taking its place as the most up-to-date Province in the Dominion.

I wish to thank the Hon. Murdock McKinnon, Commissioner of Agriculture; Theodore Ross, Secretary of Agriculture; A. E. Dewar, President of the Co-operative Fruit Co., and other Islanders for the invaluable advice and assistance rendered me since taking up my duties as Dominion Fruit Inspector. Without such assistance and advice my work would have been more difficult and considerably less valuable.

WHY DO PURE BRED HENS PAY BETTER THAN MONGRELS.

(By T. A. Benson, Poultry Expert.)

There are a number of reasons why pure bred hens pay better than mongrels. In the first place it is human nature to take a greater interest in a flock of pure bred birds than in a flock of mongrel mongrels. It is practically impossible for any one to take the same care and attention that he would give to a flock of pure bred birds, which must appeal to his pride, and which he will strive to have looking their best. He will look after their comfort in every possible way in order to get the very best results. The great advance already made in poultry keeping is undoubtedly due to the superior care, which has in many instances been given to such flocks. Then again a flock composed of all one breed will do better under routine treatment, than a flock made up of every thing and any thing; and anyone starting out with a pure breed can by a little study learn the peculiar characteristics of this breed and profit greatly by knowledge gained.

It costs no more to raise pure bred than mongrels, it should cost less, because of reason of the careful selection, which can be made season after season. The fertility of the eggs used for hatching will be improved, the percentage of the livability of the chicks hatched increased, and the flock built up to a degree of perfection impossible in the case of mongrels. When birds of a pure bred flock

(Continued on page five.)

Horse Medicines

are our particular strong point. We can help you greatly if you have a sick or blemished animal. Remember we have \$500.00 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¢ 45c 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

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Owners of the following Standard Bred and Registered animals Ruby Rexall by Kalol Prime Major by Moko Petre lo "Frogdial Bot. m 23 1 4 by Bingara Th. Rexall Girl "Bingen a's.

Don Inion D 2 20 3 4 Iona G F 1 9 1 3 4 H. H. N. L. H.

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

SIRE (Standard and Registered Stallion) Dam of BINGARA Dam Kadika by Kremlin Berks 2.141-4 Biala (3) 2.181-2 Bottom 2.23 1-4

BINGARA is world's record sire of 2 c8 performers at 11 years. He is the greatest money winning sire of 1912. He is a sire of early and extreme s, seed 28 of his 2 v r olds 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 comit (2) 2.28 maritime 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 the itance which is bound to produce early and extreme s, seed. 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 impet s 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

17-MSE.14

THE P. E. I. POULTRY ASSOCIATION'S SHOW.

The fifth annual show, which has just closed, although not the biggest, I believe was the best for many years ever had. Nearly 600 birds were shown and I would say at least 75 per cent. of them were of No. 1 quality.

Going into details of each variety would mean a great deal of work, but here I will give a partial description of those which impressed me most.

The Black Minorca class was the pick of the bunch; I have seen a good many and have bred a good many, but the three cockerels shown by Wm. Cadmore were the best I have seen my lot to see. They were large, well limbed, finely colored and exceptionally handsome birds. It is to be regretted that such birds as these can't be shown in a good show up in Ontario, where no doubt they would do justice to their owner.

Our Island Minorcas, until a few years ago, were of a very small type but the birds in this class were very large.

The Minorcas lay a very big egg and are most noted for this, although they lay a great many, too. Some of our Island Minorcas' eggs have weighed as high as 35 ounces to the dozen and when you put an ordinary dozen of eggs weighing less than 25 ounces, next them one would really think their eggs should bring a bigger price, but sad to say they don't.

Our Island's favorite breed (Barred Rocks) wasn't there in big numbers but some of them had good show qualities. The Wyandottes was a large class of birds, and a great many shapes were in evidence. The Columbians were quite different in shape to the Whites, but the Golden were finely shaped birds. Hot competition ensued in the White's class, and I think the first

REPORT OF THE DOMINION FRUIT INSPECTOR.

The following excellent paper was read before the recent meeting of the Fruit Growers' Association held in Charlottetown.

I beg to offer the following report on my work as Dominion Fruit Inspector for the present year. In order that this report may be as clear, concise, and short as possible, I have divided it into three headings which shall be treated in the following manner: Educational work, inspection work and General Remarks.

EDUCATIONAL WORK.

I took up my duties as Representative of the Fruit Division of Ottawa