

FOR FARMERS, STOCK BREEDERS AND GARDENERS

NEWSY NOTES

A COMMENT FROM GALLAGHER

The mail has just brought a letter from Western Ontario which says that "Dear Sir, I am writing to you to say how much I appreciate your splendid articles which appear each Saturday in the Guardian. They cover such a variety of subjects, and are so well written, that I am almost sure to find them interesting and useful to me. I just wanted to say "Thank you."

I notice with regret that your farmers are receiving a low price for potatoes this season. It is indeed unfortunate that the producer has to sell his produce at less than cost. It is certainly discouraging but possibly things may improve. Let us hope so!

It seems to me that there is a great opportunity opening up in the Province for a more intensive cultivation of oysters. I brought some forward from the Island this year (as I do every year) and my friends were delighted with them, for they are in a class by themselves. With the proper protection of the beds and careful marketing of a standardized product, there is no doubt whatever that a profitable market can be cultivated. The only thing militating against the sale of oysters is the very high freight on the shipment referred to, amounting to more than the cost of the oysters. No doubt a lower rate may be available if we unite in our shipments.

We are having beautiful weather here at present (Oct. 26). We had a cold snap some time ago, but it is now very pleasant. Farmers are pretty well through with the wheat which can afford to do so regarding for a higher price for wheat, but it is questionable as to whether or not it will materialize. The "bad boy" of the wheat market—Argentina—is making quite a bit of trouble. I understand that "Argentina" is going very largely into mixed farming, and is now a large exporter of produce which was formerly brought into the Province.

The business in the Turner Valley Field is going ahead in a steady way. The big companies control the situation, but after all that may not be such a bad thing, because they are able to make the most of the situation, which other companies would not be able to finance. Conditions in the Valley (as we call it) look hopeful indeed. The oil business means much to Alberta.

Talking to coal operator the other day, he expressed the hope that the weather would come to zero. Much as we would like to see his business improve, we hope he may be disappointed!

With kind regards, yours faithfully, H. Jenkins.

A very entertaining letter, with a valuable hint as to a market for oysters. In a short postscript Mr. Jenkins infers that we are unknown to each other, but this is only partly true. A good many years ago, when I was a "third man," my employer used to visit "Jenkins" at least once a week for supplies and

Freezing Injury To Potato Tubers

(Experimental Farms Note)

Investigations conducted at the Dominion Laboratory of Plant Pathology, Charlottetown, P. E. I., show that, actually, three distinct types of injury to potatoes may result from exposure to low temperatures, as follows: 1. "Frost Necrosis", occurring in tubers having been exposed to low temperatures sufficiently long to cause the formation of ice crystals. This is the most common type of injury, and is characterized by a definite darkened ring at the stem-end of the potato and to short exposures at low temperatures. 2. "Freezing Solid", which occurs when tubers are exposed to temperatures below the freezing point of potato tissue. When thawed out they are rapidly reduced to a soft, wet condition followed by decay. 3. "Turning Sweet", which occurs when tubers are stored for a number of weeks at temperatures near or slightly above 32 degrees Fahr., a feature due to the accumulation of sugar produced by the slow conversion of starch.

Potatoes injured by frost are not suitable for seed purposes because of the retarded sprout development and the possibility of affected sets rotting in the ground. Losses through the agency of low temperatures may be satisfactorily eliminated by a selection of four very beneficial measures as follows: (1) Harvest the crop before heavy frosts. (2) Store the crop in rooms having a temperature between 35 to 40 degrees F. by so doing the tubers will not turn sweet and sprouts will not develop. (3) Potatoes transported during the cold months should be provided with a protection against frost at all times. They should be carried in a head wind and covered so as to insure the circulation of air throughout. (4) When it is known that potatoes have been indicated they must be handled with care so that the temperature is above the freezing point.

The remaining members of the Rodentia of our territory are the Ground Squirrel (Tamias striatus) and the Varying Hare or "Rabbit" as it is locally termed. The Red Squirrel (Sciurus hudsonicus) is an entertaining little animal, with none of the styness characteristic of our woodland creatures. It chatters, scolds and sputters at a human intruder, working itself into a great rage; and this habit, together with its small size (as compared with other squirrels) usually leads to its identification. The worst trait of this squirrel, and one that quite overbalances its attractive qualities, is its proved habit of devouring the eggs and young of our smaller birds. One observer believed in the woods last winter I once saw one of these squirrels run up a tree, and launching itself, volplane down probably ten yards from the base of the tree. These squirrels, like their rodent congeners, are confirmed nest-builders.

The Varying Hare (Lepus americanus) is so called because its fur changes color from brown to white on the approach of winter. This change is due to moulting, the exact time varying according to the season. In winter, too, the feet are covered with a heavy coat of long hair, which enables the animal to travel freely over the soft snow, without in some places it is called the Snowshoe Hare. They are fairly

How to Keep Canadian Cheese

BY JACK MINER, CANADIAN NATURALIST

Canadian Cheddar cheese is made in various sizes and can be secured at all seasons of the year and in almost any quantity. Many people prefer to buy only what is needed for a few days at a time and, in that case, there is no difficulty in keeping it. Those who live some distance from a shop can buy it in large amounts and, with proper care, keep it in good condition for considerable time.

For the average family a 10-pound cheese is usually a convenient amount to buy at one time. One-half of the cheese may be preserved for future use by covering the freshly cut side with a thin layer of paraffin wax and keeping it in as cool a place as possible until required. The other half will keep fresh and moist if put on a flat plate or sheet of waxed paper with the freshly cut side down. When serving, it is better to scoop out or knife, leaving the outer edge uncut. The cheese should be turned upside down on the plate as soon as the meal is over and put away in the coolest place possible. This will prevent the cheese from becoming hard or dry and there will be no danger of it moulding.

THE MINER AT HOME

The last article left the miners moving homeward in a sort of "phalanx." Remember that the monotonous hard work of the mine had been performed on an empty stomach, so it will readily be seen that each one is "as hungry as a hunter!" The only explanation I can give for the miner's behavior is that he was pertaken of the miner could not perform his work: whether this was just a matter of habit, or the result of some condition in the mine, I could not say. "Think of me as I am," said the miner, "I am not a dinner." And such a dinner! Fond of good living, the miners freely indulged in it whenever their circumstances allowed it. Pies, dumplings and puddings, followed by the best of beef or mutton, was the common fare. Klokshaws, and eases of the lighter varieties, had no place on the miner's table: he left such trifles to the townsmen and the southern, poor bodies! But there was one kind of cake called a "ginger henny," which attained perfection only on Tyndeside. It was baked on a griddle or griddle, over the open fire, and served hot: it was a very rich cake, with plenty of curative and butter mixed with the dough. Physicians warn us against eating a hearty meal when tired and hungry, but these men would stow away twice as much provender at their dinner as the average man, and never turn the proverbial hair!

Experimental Farm Notes

NITRATE FERTILIZERS FOR TIMOTHY HAY

The practice of sowing 125 pounds nitrate of soda, or 100 pounds sulphate of ammonia, or 125 pounds nitro-chalk to the timothy sod in early spring is one which has been followed on the P. E. I. Experiment Station for the past seven years with satisfactory results. This is a heavier and leafier growth obtained, but many weeds seem to be crowded out. The operators who produce timothy hay find that the fertilized area is more profitable for this purpose than the unfertilized.

For the years 1927, 28, 29 and 30, the average yield of timothy hay at the various stations was 1.62 tons on the areas which had received an application of 125 pounds nitrate of soda per acre, while the yield on the check plots was .83 tons per acre. In 1931 and 1932 sulphate of ammonia at 100 pounds per acre was used in place of nitrate of soda and was responsible for an average increase in yield of .66 tons per acre.

PASTURE IMPROVEMENT

The improvement of permanent pastures by the use of commercial fertilizer and by controlled grazing is a problem which is demanding a good deal of attention at the present time. On five stations last year a simple experiment was conducted to compare fertilized and unfertilized pastures. The data show that on the average the carrying capacity of the pastures was increased 46% by the following amount of commercial fertilizer: 150 pounds sulphate of ammonia, 350 pounds superphosphate, and 100 pounds muriate of potash per acre. The extra milk produced was slightly more than sufficient to pay for the cost of the fertilizer. This experiment is to be continued.

Agricultural and National Income

Agriculture is the chief single industry of the Canadian people. Although in recent years its net production in value has been surpassed by that of manufactures, it is predominantly the principal industry of primary production. In addition to providing employment to more than one-third of the "fully occupied" males in Canada, agriculture provides the raw material for many Canadian manufacturing industries and its products in raw and manufactured form constitute a very large percentage of Canadian exports. The net production of the five-eighths of the Canadian people who were engaged in what is termed the creation of "form utilities" was given in 1930 as \$2,216,746,735 to which the primary industries (agriculture, forestry, fisheries, trapping, mining, and electric power) contributed \$1,528,528,806, and the secondary industries (construction, custom and repair, and manufacture) gave \$2,144,233,478. Of the net production of the primary industries of \$1,528,528,806, agriculture was responsible for \$788,791,748, which is nearly equal to half to the amount produced. The various producing divisions of agriculture were field crops, fruits and vegetables, maple products, tobacco, grass and clover seed, honey, flax, cereals, farm animals, milk, dairy butter, creamery butter, home-made cheese, factory cheese, miscellaneous factory products, milk consumed or otherwise used, poultry and eggs and fur farming pelts and animals.

ly prolific, having up to seven young at a birth, and this accounts for their survival in the midst of many enemies. These hares depend on buds, twigs, and the bark of trees for food, and this makes them a nuisance to the gardener and the orchardist.

Have Birds And Animals Brains?

BY JACK MINER, CANADIAN NATURALIST

It is an undoubted fact that when God created this universe, He made man supreme in every way. "Gave man dominion over the fish of the sea, the fowls of the air and every thing that creepeth upon it." Thus He made man's brain supreme. But that does not say he didn't give the bird or animal kingdom brains and knowledge in some way superior to ours, which I will try to explain later.

In the animal world—take a dog for instance if a cruel-hearted man on your premises and kicks your dog in the ribs, you can rest assured that the dog will form then on keep out of that person's way; but, if another person comes on your property and pets and speaks kindly to the animal and perhaps brings him a bone, the dog's attitude will be more kindly towards that person; because a dog has knowledge, or brains, if you wish to call it that, to know a friend from an enemy.

Take your team of horses, which are the most common animals, you can train them which stall in their, or which side of the tongue to go on, and other common things you want them to do. Does this not show that they have brains, sense of knowledge, or intelligence if you wish to term it that? One only needs go to circus and watch animals perform and do things which are unbelievable; and while I do not agree with some cruel ways of training animals for a circus, yet it proves that they have brains and sense of knowledge. Here at our bird sanctuary, there are several pairs of mallard ducks, which stay on the ponds all summer but fly all over the countryside and raise their young as far as three or four miles, or farther away when the young are hatched, what happens? These mother ducks start walking home towards these ponds, with the little ducklings paddling along behind, and in two or three days after they are hatched what happens? Time and time again I have looked out my dining room window and seen an old mother with a whole brood of little ones, standing at the gate, waiting for me to come out and open the gate and let them into the ponds. The fact is the mother duck has both wings and could fly over the fence. She had never gone through this gate, but by watching me come through that entrance in the fence six or eight times a day, she had learned to follow me, and whenever you wish to call it, to know that by bringing her little loved ones, that naturally could not fly to that spot, that they could gain entry to the enclosure. Many a time this has occurred and many a phony taken of the glad mother duck waiting at the gate to be allowed in.

In the beginning, I said that in some ways birds had brains superior to ours. Let me try and explain myself. These ponds in my bird sanctuary are so many in comparison to the North American continent, that no words can express the proportion of them to the millions of square miles of land and water of North America. Even at this point the forest land pressed on the map of this continent would represent several square miles; so again, I say these ponds, which comprise only a couple of acres on my bird sanctuary, cannot be measured or proportioned to the North American continent. It is a well-known fact that since 1909 I have been tagging ducks, and since 1915 have tagged over eight thousand and Canada geese, which represent approximately forty tons of hoppers that have gone through my hands and had an aluminum tag placed on their legs, in order to study their routes of migration—but what else has it proven? It has proven that these birds came back to these same mud holes year after year for food and protection and kindness, that I try to give them. It further proves that they know a friend from an enemy; proves that they know a place of safety and rest, or in other words, where to go for a breathing spell. But the big thing it proves is that they have been given brains, knowledge or sense, that without the air of compass instruments or such like they can get up during early October at the Arctic Circle, with their family following in single file and in a short time come circling down on these little artificial ponds of mine, where they know they are safe; and in the early part of March, the ones that have escaped the deadly aim of sportsmen along the Mississippi valley and the Atlantic seaboard, rise up out of range of shot and shell and keep at

Wider Distribution Of Registered Seed

BY JACK MINER, CANADIAN NATURALIST

One of the improvements most to be desired in Canadian agriculture is a reduction in the number of varieties in use of cereals and other farm crops, and the more careful selection and better cleaning and grading of the seed of the best varieties.

A small percentage of farmers who make use of the best varieties make use also of the best seed cleaning methods, with the result that the seed which they sow is in all particulars superior to the seed used by their neighbours, and is scripturally and actually true that as they sow, so they reap. Their crops are likewise superior.

On the other hand it is true that many are unable to make the most of the wheat oats or other important crop they are growing. This is equivalent to saying that they do not know whether it is good, poor or indifferent seed in quality. Other farmers, again, are familiar enough with the various names of their crops but have been misled on the subject of the merit of any particular variety, and may be prize highly one which is not the best adapted to their particular locality which perhaps is of inferior quality wherever grown. Failure to compare carefully the merits of the different varieties and to choose the variety in each crop which under the prevailing conditions combines both high yield and good quality is a misfortune, first from the standpoint of returns to the individual grower and secondly from that of the nation's total production.

Unfortunately, too, are the results from using seed which is not pure as to kind and variety. There are many instances where one kind of grain has been so contaminated with another, or one variety has been so mixed with one or more other varieties of the same kind that the result, crop has been unsuitable for seed and has suffered serious deterioration in market value. Differences in varieties as to time of ripening, color, size and shape of kernel, and in milling and feeding quality, emphasize the desirability of raising each variety as pure as possible.

Fortunately there are today in every province of Canada individual growers and societies of farmers who are specializing in the production of registered Certified or Improved No. 1 seed of the commoner agricultural crops. Their efforts in improved seed production, and the distribution of their product among other growers are being encouraged by both the Federal and Provincial Departments of Agriculture.

Issues by the Press and Publicity Division, Publications Branch, Department of Agriculture, Ottawa, Canada, F. B.

drops that were apparently hanging on every blade of grass. I started from the house as usual to build a fire under the boiler at the barn which I called the "boiler house" and all followed me through the gate, really quieter than domestic fowls. I kept on dropping a little feed, and they kept right after me until they came to the fence. I saw grass. There I left them and started on. But I hadn't got five rods away before my whole body and nerves were all shaking at seeing and hearing old Jack Johnson coming from the north with some flapping and honking like a creature that had gone completely mad. I turned and ran back, fearing he would kill every one, but he beat me there, and thank God he did. For, instead of killing them, as I feared he might, he got within about six feet of them he stopped, and with his head and neck straight in the air, his beautiful chest heaved, and I am not exaggerating it in the least when I say that his honking could have been easily heard for a mile away. What he said I don't know but each gossling lay flat on the ground, and he put his head on each, apparently caressing and loving them. In turn he got up and flapped his baby wings.

Just then I cast one eye to the north, and here was the old, sick mother coming, falling down with weakness every rod she came. This was the first time I had seen her on the bank of the pond since she left the nest. The young were now over five weeks old. Old Jack looked and saw her, and ran up and apparently told her all, and she tried in her weak way to come faster. But this dear old father really made several trips back and forth to the young before she got there.

Now comes something worth while for me, and I don't want any reader to ask how it was that this old pair of beauties knew their young. I only know they did know them; that is all. There I stood, haremhead and barefooted, at the most beautiful time of the day. The whole earth seemed to be transformed into a rainbow of God's own colors, starting and ending upon this one spot; for, you see, this dear old broken-hearted father and their sick mother united and knowing their six loved ones which they had never seen before; or in other words, starting and witnessing the reunion of this broken family, caused my brain to fairly whirl in thought, until I melted down like a child.

I, like all other adult men who have buried their parents, though I have just outlined, how much greater knowledge and brains has He given us, whom He made in

Can. Will Be Represented At Live Stock Exposition

Canada will be represented at 12,000 animals were exhibited. The International Live Stock Exposition in Chicago, Ill., which will be held in the mammoth new home of the exposition said to be the finest structure in the world devoted to such use, December 1st to 8th, corresponding with its 35th anniversary. The old building was destroyed in the fire which swept the Chicago Stock Yards last May. Entries to date are the greatest in the history of this great agricultural show where last year over

Hold Tight

(C. E. MacKenzie)

What the outcome of the present stagnation of money and as a result the stagnation of trade will be, there is none of us able to say, but from all reports available we here in Canada have a much better chance of a gradual come back to normal than one would have in almost any other country. As our country has not been over developed, and with our immense natural resources it should be able to make progress while countries whose resources have been exploited and where every industry has been over developed, will have a much more difficult job of making the grade.

The greatest detriment in Canada today to rapid progress is our railway situation, we are over roaded to a great extent than any other country per capita and the great problem for our government and people is to devise ways and means to lighten this enormous burden.

As farmers in a province where agriculture is the profession followed by three fourths of our people we can "sit tight" on our job by making our business more efficient in many ways. We can avail ourselves of the help given by our Department of Agriculture whereby we may be able to raise the standard of our live stock in taking advantage of the present system of using pure bred sires; those of us who are dairymen, by raising the standard of our milking herd, say one thousand pounds per cow, what a difference it would make in our output and revenue, or if we are breeding beef breeds, if by raising the average weight of our market animals to hundred pounds by better breeding and feeding we will have made good progress; the same applies to our hogs, sheep, horses and poultry. Then by sitting tight in his or her home, we will make progress and will be units in making a better and happier home and country, and with these will come better times. We the people of this or any other country are the means of either growth or decay, as in the great law of nature there is no standing still.

Therefore none of us should be too willing to blame governments as all such are only what we the people make them.

During the second experiment, records were kept of the body weights of the cows on test. When receiving the fish meal ration, the average gain per cow was 38 pounds, while the oil meal ration gave a gain of 15 pounds.

The fish meal used was of high quality, (below 3 per cent in oil content), and no difficulty was experienced in feeding, either as to palatability or from milk flavour.

Using oats and barley as a basal ration, costing \$30 per ton, the results would indicate that with oil meal costing \$40 per ton, fish meal would be worth \$45, fish meal would be worth \$60.

While the data given are based on only two experiments the results are so nearly identical that they indicate: Fish meal is a valuable and economical source of protein and minerals for the feeding of dairy cows; fish meal may be recommended without fear of any injurious results, providing it is of good quality, that is high in protein and minerals and low in oil.

Colleagues Honor J. B. Spencer

On the occasion of the recent retirement as Director of the Publications Branch, Dominion Department of Agriculture, J. B. Spencer was presented with a suitably inscribed Sheffield tray and hors d'oeuvre dish, and at the same time Mrs. Spencer was given a Sheffield Rose bowl filled with roses. The presentation was made on behalf of the entire staff of the Dominion Department of Agriculture at Ottawa by Dr. C. H. Barton, Deputy Minister, who said tribute to Spencer's long and distinguished service and to the prominent part he had played in advancing and broadening the publicity side of the department's activities during the years he was director of publicity.

The gifts were handed to Mr. and Mrs. Spencer by Miss Ma'ha Webster who for some years had occupied the position of secretary to Mr. Spencer. In retiring, Mr. Spencer thanked the members of the staff for the splendid co-operation they had given him throughout the years had also expressed the warm appreciation of his wife for the gift she had received.

MUST SELL BUTTER BY NET WEIGHT

Recently Inspectors of the Dairy and Cold Storage Branch of the Dominion Department of Agriculture have been making a close check up of the weights of prints of butter in order to insure that the consumer is receiving full weight. This has disclosed that the legal requirements concerning the sale of butter are not being strictly observed by some vendors.

These regulations provide in Sub-section 3 (a) of Section 6 of Part I of The Dairy Industry Act that any butter intended for sale that has been moulded or cut into prints, blocks, squares or pats must be of the full net weight of one-quarter pound, one-half-pound, one pound or two pounds, but nothing in this paragraph shall be held to apply to butter in rolls or tubs of indeterminate weight, as sold by farmers.

The inspectors will continue the check up throughout Canada in order to see that consumers receive full net weight.

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