

EFFICIENT FARMING

DANES AGAIN POINT WAY TO CANADIAN HOG PRODUCERS.

Great Britain will probably for 1923 outstrip its own record in the quantity of bacon and hams imported. The trade is greater than ever. From the Canadian point of view the opportunity for export business is, therefore, greater than ever.

Though the actual amount shipped from the Dominion between January and the end of October was greater than in the same period last year, our percentage of total supply was smaller. Again Denmark, a country of only three and a half million people and of an area that could be dropped into one of the Great Lakes, sent four and a half times as much bacon to England as went from Canada.

In the first nine months of 1923 the British imports were distributed as follows:

Canadian	10.3%
Danish	44.9%
American	38.1%
Others	6.7%
Total	100.0%

As might have been expected, this state of things has called for comment. In the December issue of the "Journal" of the Ministry of Agriculture of Great Britain there are two editorial articles from which extracts are given below, because of their significance to our own two-fold industry of livestock producing and meat packing.

"There is a great need for an increase in the number of pigs kept in this country, and particularly of high-grade bacon pigs. It is not a question of breeding an improved variety of pig; the Dane, so often held up as a model, use British pedigree boars for producing their bacon pigs. Nor is it a question of nature of food, for the Dane pig is fed on standard lines, largely with foreign barley. Yet the difference in the results is striking."

The view is held that, whereas at least three-quarters of the Danish pigs give first quality bacon, less than one-quarter of the English pigs reach that standard. "The Danes secure their results by concentration on the single aim of producing a side of bacon pig for the English market. Beginning with the boars, they do what is in accord with modern views on genetics. Boars whose progeny do not come up to a certain standard are slaughtered. In other words, the best applied is progeny, not pedigree. The standard is not a fancy one based on external points. It depends mainly upon precise measurements of the carcass, and consideration is given also to such matters as early maturity, capacity of flesh to take up salt readily, distribution of fat and lean."

"It is clear that the Danes have succeeded because they have organized the whole business of bacon production, from breeding to curing and marketing. In this country there is a lack of unity of aim or effort. As Professor Wood pointed out in the course of a discussion at Cambridge, the farmer is insufficiently in touch with the consumers' market. The conclusion of the whole matter seems to be that there is one procedure which may go a long way to remedy the existing state of affairs. We need more standardization of our production. What the English market requires and appreciates is a regular supply of a standard product. It is the finest market in the world. The irony of the position is that the best English produce is still superior to anything coming from abroad. The best Wiltshire bacon still commands the highest price, but no one can undertake a future delivery of regular supplies of uniform quality. Yet the Dane can contract to supply sides by the thousand, all of one quality."

"Co-operative societies, after all, are only methods; it is organization, and the common purpose inspiring and actuating the whole mechanism of production and supply that count." The following are extracts from a second article in the same issue of the "Journal" of the British Ministry of Agriculture:—

"The farmer who sets out to produce bacon pigs should breed and feed with the object of turning out a uniform product of the type that can be converted into first quality bacon with the least amount of waste. It may be emphasized that a pig suitably bred for the bacon manufacturer is usually an excellent pork pig; but it does not follow that a pig which may be killed for pork is of suitable structure for first quality bacon.

"Strong representations have been made to the Ministry by the bacon curers that they are unable to obtain sufficient pigs of the right quality to enable them to keep their businesses running at full power, and that in particular they receive an undue proportion of pigs which cannot be converted into first quality bacon. It is stated that in other countries, notably Denmark and Sweden, where pig rearing has been organized for the production of bacon, as many as 75 per cent. of the pigs sent to market are convertible into first-class bacon, largely as a result of aiming at a standard type, whereas in England,

doubtless partly owing to the numerous breeds and crosses, the proportion is no higher than 25 per cent. A large proportion of the pigs in the remaining 75 per cent, although of good quality, are too fat and heavy for first-class bacon."

In some respects the responsibility for this undesirable state of things rests with some of the bacon curers who have paid upon a basis of weight alone without reference to the suitability of the carcass for bacon production, but the Ministry is aware that certain firms of bacon curers have now become selective in buying and are adopting an improved method of payment.

"The Ministry considers that the development of the bacon industry and the production of the right type of bacon pig will depend upon the financial inducement offered to the farmer by the bacon curer for the supply of graded pigs at recognized graded prices. The farmer, too, should realize that by helping forward the bacon industry he is stabilizing prices for himself. The producer, the curer and the retailer are all equally responsible for increasing and improving the supply of English bacon. They are, in fact, partners, and the interest of each is bound up with that of the others, and close co-operation between them is essential.

"The size calculated to produce the best price is the medium bacon pig producing sides when cured of 56-65 lb. live weight or 160-165 lb. dead weight. Such pigs should be ready at about seven months old."

"The ideal bacon pig can be raised in many ways from the various English breeds. It is generally agreed that the bacon type of pig can best be obtained as a first cross, using one of the large breeds to attain length of side. It is rarely wise to go beyond the first cross, as with a second cross, the progeny often fail in uniformity of type. As an example of a suitable cross, many rearers of bacon pigs use Large White (Yorkshire) boars for their length of side, with a Middle White sow to secure more rapid growth and a better ham and streak. A cross the other way about also makes a very good bacon pig. The bacon pig can, however, be obtained from other breeds and crosses provided that the breeder keeps in mind the type. Owing, however, to the presence of black pigment in the mammary glands of certain races of black pigs, producing the so-called 'seedy cut' in the streaky, wholly black pigs should be avoided, unless, as seems possible, strains can be selected which do not show 'seedy cut.'

"In the feeding of pigs for bacon it will be sufficient to emphasize the fact that bacon pigs should not be too fat but should show a good proportion of lean, and that foods tending to produce soft fat should be avoided. An excess of swill or too much maize or linseed tends to produce an undesirable quality of fat."

Live Stock and Products Exports.

Market reports of the Dominion Live Stock Branch show that in 1923, 57,672 cattle were shipped to Great Britain compared with 18,475 in 1922, and that 96,873 went to the United States compared with 189,780 in the year previous. Great Britain took 24,074 calves last year compared with 27,720 in 1922, 6,232,400 lbs. of beef compared with 6,231,900 lbs., 99,250, 100 lbs. of bacon compared with 98,384 lbs., 2,072,000 lbs. of pork compared with 1,995,700 lbs., and 29,500 lbs. of mutton compared with 34,190 lbs. The United States took 28,748 sheep in 1923 compared with 90,266 in 1922, 13,087,300 lbs. of beef compared with 13,583,600 lbs., 282,490 lbs. of bacon compared with 154,000 lbs., 709,000 lbs. of pork compared with 609,000 lbs., and 1,553,000 lbs. of mutton compared with 4,497,900 lbs.

Canadian Bacon Shows Improved Quality.

A cablegram received in Canada quotes a large firm of importers of live stock products in England as saying that Canadian bacon recently received has been of greatly improved quality. This firm attributes the improvement to the system of government grading of hogs. The same firm also states that recent consignments of butter from Western Canada have earned commendation from British purchasers.

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Tending the Lamp.

An incubator should be run at least five days, or a week, before filling it with eggs, so that it may thoroughly dry out and so that an impaction can be made of the working parts. The lamp must work in perfect harmony with the thermostat, and must not be turned up too high nor down too low.

Running the machine a week will show you how high the flame should be after refilling the lamp with oil, and how much the wick must be cleaned or trimmed before relighting it. Before refilling the lamp the height of the flame should be noted before disturbing it, and also the temperature of the machine, so that the proper adjustment can be made.

A thermostat is able to handle only a very little surplus heat, for the reason that the temperature inside the incubator must go higher in order to make the thermostat act more freely. This may cause the temperature of the egg chamber to get too high and the only practical thing then to do is to regulate by the flame of the lamp. After that information has been secured much of the mystery of artificial incubation will be secured.

When the heat is started in the machine, the thermometer must be watched, and when the temperature reaches 103 deg. F. the thermostat must be adjusted so the clapper above the lamp raises clear about one-sixteenth or one-twelfth of an inch. Should the temperature continue to rise, the flame of the lamp must be lowered until the thermometer registers 102 deg. F., and stays there. Care must be taken that this clapper covers the hole perfectly, and if it does not, slightly bend and adjust it so the clapper fits tightly over the hole until the temperature goes up to 103 deg. F. when adjustment must be made as already stated. Inspect the working about a half-hour after making the adjustment, and if everything is promising return an hour later, or as many times as necessary until it is running correctly.

I have had very little trouble with thermostats. I have found that most of them differ very slightly, if any. When I want to test one I place it in two or three different machines with other thermostats, and make comparison. I place it just as high, same slant, same position as the thermometer I am testing by, side by side, with the glass tubes having the same slope.

If I find any difference it will be most likely a trifle high, for glass shrinks with age, and after the difference is determined the thermometer is used again, allowing for the difference.

If the two thermometers, when placed side by side, do not compare in length, I place the bulbs side by side on a perfect level with each other; for if one thermometer is a little higher or a little lower than the other one, they will not register alike. In many instances I have known an inch either up or down to make a difference of one or two degrees, the amount of difference varying according to the inside of the machine.

Milk in Bread Making.

The Chemistry Department of the Ontario Agricultural College studied experimentally the effect of whole milk, skimmed milk, condensed milk and milk powder in making bread. The whole milk naturally had some of the effects of fat, and the sweetened, condensed some of the effects of sugar, but, otherwise, milk will not replace sugar, malt or shortening in making bread. It has an influence all its own which none of these other constituents will produce. In conjunction with these other ingredients it does, however, influence the flavor of the bread, and improve the color of the crust. In fact it makes a richer loaf of bread, with greater moisture retaining and higher food value properties.

Sunlight—that's the big item in farrowing houses. Germs turn up their toes when Old Sol enters.

Goodies for St. Patrick's Day

Chicken Fritters—Cut meat from a dressed chicken, into thin meat slices, flour these well, or if preferred, draw them through egg and cover them with bread crumbs, which have been mixed with a little butter in a small frying pan, when hot put in the slices of meat, cook them gently, turning them once or twice during the process. When brown pile them on a dish and send brown to the table.

Potato Puffs—Boil six potatoes and put through ricer. Beat one egg, mix with it one-fourth cupful of milk, add the potatoes, piece of butter and salt. Form potatoes into fancy shapes, brush with egg and bake in hot oven.

St. Patrick's Cake—One cupful of butter, two cupfuls of flour, two cupfuls of sugar, two teaspoonfuls of baking powder, one cupful of milk, four whites of eggs, one cupful of corn starch, one-half teaspoonful of almond extract. Cream butter, add sugar, and almond, sift together, flour, corn starch, baking powder. Add alternately with milk to first mixture, beat eggs (whites) until stiff, add to cake and beat vigorously. Make into loaves.

Good Results

Good results were obtained from the poultry kept at the Dominion Experimental Station, St. Anne's, Pointe-Claire, Que., by feeding a home-made mixture of scratch feed. For pullets the scratch feed was made up of one part cracked corn, one part wheat, one-part oats. This grain was scattered in a deep litter of straw, morning and evening. The laying hens were given the same mixture but were given less scratch grain in the morning. The smaller quantity given with beneficial results exercised in addition to the scratch feed a dry mash was given consisting of two parts wheat bran, middlings and corn meal and one part of leaf soap. This mixture is kept constantly before the birds in a hopper. During the winter months when other green food is not available, mangolds are fed daily. A slight difference was made in the one part of cracked corn was used in the proportion of cornmeal was considerably reduced. At the end of the season it was found that the pullets per bird, while the yearling hens gave \$1.04 profit per bird. The reason for holding over the birds the second year was to secure the advantages of the better results they gave in the hatchability of their eggs and the vitality of the chickens.

Does a Garden Pay?

I am not sure whether our garden pays its way or not. It takes a lot of hard work to plow it and get out the stuff; and then it's plant and hoe, and plant and hoe! Gosh, but my back gets tired at it! Sometimes I think we could get along without a garden by buying a little green stuff off the market occasionally.

I have been keeping tab on this gardening business. Last spring I put in two whole days with the team hauling manure, plowing, harrowing, and listing. That was ten dollars! I put in two more days helping Wife 'ant things. That was six dollars! Seeds cost eight dollars, and counting the time I helped hoe and work it through the summer would amount to twenty dollars!

Of course, we had all the fresh vegetables we wanted on the table, and sold about forty dollars' worth. We put up 450 quarts of corn, beans, peas, tomatoes, and all kind of junk. We made 30 gallons of kraut, had 150 pounds of soup beans. Had plenty of kale, cabbage, and turnips to feed our chickens through the winter, but it cost pretty heavy. Our garden may pay—I dunno, I dunno!—M. R.

Milk Adulteration.

The Chemistry Department of the Ontario Agricultural College during the past year made a study of the freezing point of milk by means of the Hortvet Cryoscope, proving the apparatus to be absolutely reliable in detecting adulteration of milk by adding water. The Hortvet Cryoscope, having a scientifically accurate construction, now fills that much needed requirement of an official test for detecting added water in milk regardless of the breed of cows from which the milk may be obtained.

A Guide in Purchasing Fertilizers.

Farmers purchasing fertilizers would do well to see that they get what they pay for. A pamphlet recently issued by the Dominion Seed Commissioner, shows that in many instances the fertilizers offered for sale neither come up to the guarantee nor meet the requirements of the Fertilizers Act passed in 1922. The pamphlet referred to, entitled "Fertilizer Samples," can be had free on application to the Publications Branch, Ottawa, and conveys a deal of valuable information relative to different brands of fertilizers.

One-half cupful of compressed yeast, two cupfuls of flour. Let rise overnight. In the morning add flour, enough to make a stiff dough. Let rise again, then add one-half cupful of sugar, a piece of butter, a little nutmeg, two eggs. Beat butter, sugar, and eggs to a cream, then add to dough. Knead, roll with rolling pin, cut with a large cake cutter, then cut in halves, dip in melted butter and lay against one another, with rounded part up. Let rise again then bake. Very delicious.

Pea Timbales—Cook one tablespoonful of flour in one and a half tablespoonfuls of butter, when bubbling, stir in gradually, one-half cupful of milk, cook until smooth, and season with a little salt and onion juice. Remove from fire, add three beaten eggs, and one cupful of cooked peas, pressed through a sieve, turn into greased timbale molds. Stand them in a pan of hot water and bake in a moderately hot oven. Turn out on heated plates and serve with white sauce.

Curdled Celery—Select the fine white stalks, wash well, and cut in two-inch lengths, then with a small knife slit the ends into fringe, about one-half-inch long. Keep in a bowl of ice water to which a little lemon juice has been added to keep it white. Serve in dainty piles in individual dishes with French or mayonnaise dressing.

The Sunday School Lesson

MARCH 2

The Revival Under Samuel, 1 Sam. Chs. 1-7. Golden Text—Direct your hearts unto the Lord, and serve him only.—1 Sam. 7: 3.

Samuel's great work was to create a unity of feeling and to make possible unity of action, based upon common recognition of Jehovah as Israel's God. He was prepared and educated in a remarkable way for this great task. Consecrated from his birth to be a Nazirite (Num., ch. 6), he stood for a pure worship at the altars of Jehovah against the unclean practices of the sons of Eli. Though an Ephraimite, he was trained to the priesthood in the sanctuary at Shiloh, and there, while yet a boy, he was called to be a prophet. In mature manhood he became a judge in Israel, and not content to narrow his activities to one place, as other judges had done, he held circuit court, going from places in central Palestine. On more than one occasion he called together the chiefs or elders of Israel for fellowship and worship, and thus achieved two important results—an increased sense of unity and common devotion to their God, and an uprising of the national spirit in resistance to the insolent aggression of the Philistines.

Above all, Samuel was a man of vision and faith—a man with a great task and a great message, a true prophet of God. His patriotic service to the nation was one with his service to his God. High-minded, honorable and fearless, he stood with steadfast courage against the grosser evils of his time, and for absolute loyalty and obedience to his Lord.

Ch. 7:5. *Gather all Israel.* In the nature of things it could only have been representative men of the tribes who responded to such a call. Samuel had already engaged in a campaign against the Canaanite gods and their corrupt and unclean forms of worship. He had promised deliverance from the Philistine oppressors to the people, if they would but turn to the Lord, put away the strange gods, and prepare their hearts unto the Lord, and serve Him only, vs. 3, 4. Now he sought to confirm them in their newfound faith, by a great gathering for prayer, fasting, and waiting upon God. *Mizpah* (Rev. Ver.) of which the name means "watch-tower," was situated about six miles northwest of Jerusalem. The modern name of the place is Neby Samuil, that is, "The Prophet Samuel." On two other occasions it was the meeting place of a national assembly. (See Judges 20: 1 and 1 Sam. 10: 17.) *I will pray for you.* Prayer is the best preparation for labor. The great task of overthrowing the Philistine invaders, of unifying the nation, and of establishing upon a firm foundation the religion of Jehovah, could only be accomplished through and by prayer. Samuel was a man of prayer. See also ch. 8: 6; 12: 17-19, 23; 15: 11; and compare Ps. 99: 6 and Jer. 15: 1.

V. 6. *Drew water.* The offering of water may have symbolized the pouring out of the soul in prayer before God. See Lam. 2: 19. The fasting was a symbol of penitence, of humiliation and contrition of heart. *And Samuel judged.* Because the people believed him to be a prophet of God, and therefore divinely guided, they were willing to accept his authority.

V. 7. *The Philistines heard.* These warlike neighbors of Israel at this time held a large part of the land in subjection, exacting heavy tribute, and for that purpose maintaining strong garrisons in fortified places. When they heard of this gathering of Israel they supposed it to be for the purpose of rebellion, and so "they went up against Israel."

Vs. 8, 9. Such was the fear of the Philistines that the men of Israel did not believe that they could overcome them in battle. The only way of escape was by prayer. They appealed to Samuel to pray for them. The sacrifice offered was an embodied prayer, and represented more than a cry for help. It represented a new dependence upon and trust in Jehovah, and a new or renewed purpose to serve Him faithfully.

Vs. 10, 11. *Drew near to battle.* The men of Israel fought and the storm fought for them. Always they had heard Jehovah's voice in the thunder, and now they were heartened by the sense of his presence with them. They fought and the victory was theirs. Never afterward could they believe their Philistine foes to be invincible.

Vs. 12, 13. *Eben-ezer*, means "The Stone of Help." It marked the place where God came to the help of His sorely oppressed people. For the time the Philistines were subdued, but in later years they came back again, and to be finally conquered by the armies of Saul and David.

APPLICATION.

1. *Silent Years.* What was Samuel doing during the twenty long unrecorded years that preceded the great revival? Two bad boys from a good home had ruined themselves, their father and his family, and their native town. The crash of their ruin shook the nation, and was fatal to the cause of religion. It took the patient perseverance of a saint, throughout twenty years of the best years of his life, to rekindle and restore the religious life of the people, following the moral shipwreck of Eli's sons.
2. *Revival Meetings.* Sooner or later, to the preparing armies of the Lord, the day of march will come. To some leader God gives the spirit of discernment to note the hour and sound the clarion call. Then it is the time to drop all else and hasten to follow the fiery cross of the day of the Lord. It is a tide in the affairs of men. Wise is the spiritual engineer who can calculate and utilize the lift of the tide. At such a time we may well follow the program of Samuel. The first thing they did at the great gathering was to pray. Then we sacramentalize their pledged their commitment to the new life by the symbol of water poured out. This signified no recall. The vow was to be considered irrevocable.

able. Then they fasted,—a very natural expression of real sorrow for sin. They could not eat. Such preparation of mind and body was then followed by public confession of sin, fault and failure.

3. *The Stone of Remembrance.* Such a gathering will soon command the attention of the Philistines. Consecration is a first essential to that superior courage that is requisite for a crusade. An old English baron once said when he saw his enemies at prayer, "Up and at them. They have begun the battle." Any living church must needs provoke criticism and opposition. But God's resources are still for those who carry out His program. It is for ever untrue that God is on the side of the strongest battalions. The laws of nature are God's laws, and it is not by accident or hap hazard chance that they operate to do his sovereign will. "Hitherto hath the Lord helped us." We do well to mark the time and place. In stately Abbey, by country church yard, with living green of a tree of beauty, planted significantly, in fadeless ink in the old family Bible, by simple, priceless heirloom, treasure trove to children's children, may we symbolize our finding of God. The recurring festival—the harvest home, the anniversary, the glorious Easter dawn are high rays wherein we follow in the train of "saints, apostles, prophets, martyrs," who have tasted and seen that the Lord is good.

How I Sold Hyacinths.

Hyacinth bulbs that I bought in the fall I sold in blossom at Easter time at 100 per cent. profit. The local florist readily paid me 50 cents each for the potted plants.

Grocers, bakers, confectioners, and other merchants are usually glad to handle these plants at Easter time, often without any commission if the owner agrees to take back unsold plants. The flowers make good trade attractors.

The right kind of an advertisement in the local paper will bring customers even when the flowers cannot be displayed where the crowd passes. The supply of moderate-priced blossoms at Easter time is seldom equal to the demand, especially in the smaller towns.

I purchased the bulbs from a large seed house in the city, choosing the choice, imported, "exhibition size" retailing at 20 cents each. I planted them in five-inch pots, one bulb in each, in rich, dark soil, with which a small amount of sand and leaf mold had been carefully mixed. The pots cost me five cents each.

As I wanted the hyacinths to bloom at Easter time, I had to keep them back, so I buried them, pot and all, deep in sand in a corner of the cellar. About six weeks before Easter I took them from the sand. When the buds began to swell I led them to open at the time I desired by giving them plenty of sunshine to urge them forward if slow, or placing them in a subdued light when they came on too fast. As near a uniform temperature as possible was maintained. The flower bunches were extra large in size, and some of the bulbs produced four clusters.

Cows on the pasture should be removed for several hours before milking, so the milk will not be tainted.

Seeds for Sale

Peel County is noted for its high quality seeds. Peel Seed House, Brampton, Ont., is located in the very centre of this district. It has large quantities of Grains, Vegetables and Special Alfalfa, Red Clover, Alkali, Sweet Vetches, Timothy, etc. which are sold direct to farmers, any part in any size lots. Write at once for price list. PEEL SEED HOUSE, Brampton, Ontario.

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