Soils and Crops

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Our Export Trade in Cattle.

Apart from the British embargo question at present under investigation, Canada's export trade in cattle is brought prominently into the limelight by the Fordney tariff recently adopted by the United States Congress. This places an increased duty on all manner of articles of agricultural production, among which come cattle, not intended for breeding, with a duty of 30 per cent. ad valorem, or thirty dollars on every hundred dollars the cattle may be worth. To what extent this will affect Canada's export trade in live stock with the United States has of course yet to be determined, but it is worth observing that if 30 per cent. had been paid upon the 294,000 head of cattle sent across the border last year and which brought $21,232,551, duty amounting to $6,369,765 would have enriched the United States customs. In this connection some facts presented by the Live Stock Commissioner at Ottawa are worthy of note. Previous to 1911, Great Britain took 60 per cent. of our exports of live stock and the United States 10 per cent. Between 1890 and 1906 the business with Great Britain increased from 67,000 head to 164,000 head. Then it began to decline and in 1911, the exports amounted to 113,795, but in the following year they fell to 48,000 head. There has been no recovery to speak of since. In 1914 the shipments to the United States took an abnormal bound, the total being 206,446 head. For the next five years the trade was steady around these figures and then in 1919-20 there was another big leap, the number of cattle going across the border to the south, out of a total exportation of 578,352 head, being 502,588, leaving only 15,764 head to go elsewhere. In 1920-21, the number going to the States fell to 294,000 head, but at that the duty that would have to be paid at 30 per cent. on value would reach, as here stated, to upwards of six million three hundred and sixty thousand dollars.

Allowing Hogs to Feed Themselves.

Much of the labor of feeding stock can be saved by the adoption of modern methods. This is particularly true in the feeding of hogs, which it has been found make economical gains when allowed to take food as they desire it rather than to hand-feed the animals at stated periods. The self-feeder for hogs is not an untried appliance. By its use the animals are allowed constant access to a supply of meal, which is given in dry form. The feed is kept in a hopper which may be replenished from time to time. From the hopper the feed falls into the feeding trough as consumed by the animals.

A self-feeder to be successful must be cheap, strong, capacious, portable, easy to construct, weather-tight, easy of regulation for different textured meals, and most important of all so arranged that the contents will feed into the troughs without any stoppage caused by the blocking of the meal in the hopper. Further, the troughs must be constructed to ensure the minimum amount of waste such as might be caused by the animals nosing the meal over the sides or soiling it by standing in the troughs.

A self-feeder can be readily made by any handy man. For an average farmer a structure 4'x4' and 4' high should be satisfactory. The feeder should rest on three pieces of 2"x4" scantling. The walls and floor should have frames of the same material and should be boarded with tongued and grooved material so as to be waterproof. The roof, which should extend well over the trough, may constantly form the door or lid of the structure. When used as such it is well to provide a prop to keep it open when necessary. Illustrated construction details for a self-feeder are presented in Exhibition Circular No. 93, of the Dominion Experimental Farms.

Poultry

Cream of tartar given in the drinking water every now and then wards off disease and keeps the blood of the fowls in proper condition.

The inferior laying hen of the meat type has thick, beefy pelvic bones, with hard lumps at the ends. Such hens are not heavy layers. Sell them. They usually weigh heavy.

Good laying is not indicated by the amount of cackling a hen does. In this respect, sometimes, hens are liars. The hen that makes a lot of fuss over an egg is, usually, but an ordinary layer.

There is nothing better for either old hens or chicks than dandelions. Grub out a basket of the roots and tops. Chop very fine and feed. Many times my flock of hens has gone to laying at once after a long period of rest when given a few feedings of dandelions. Chicks thrive wonderfully on curd cheese and chopped dandelions, and especially when a few table or meat scraps are mixed in occasionally.

Bicarbonate of soda is of great value when placed in the mash or drinking water. It will cleanse the digestive tract of any sour or decayed substances, and keep it in a healthy sweetened condition.

Eggs remain fresh even for weeks in the warmest weather, and do not appreciably lose in weight nor condition even if sent across the continent, when no males are kept in the flocks. However, it is always best if eggs are marketed within a week; the sooner the better.

Water-glass is the great egg preservative. It is a syrupy fluid which can be purchased from druggists. Add one part of the substance to nine parts of water that has been boiled and allowed to cool before mixing. Thoroughly stir the solution while it is being mixed and pour it over the eggs, which have already been packed in an earthen or wooden vessel. Keep in a location where the temperature never rises above 60 degrees F. The eggs should not be more than a week old. Infertile ones are better.

Hints on Plow Adjustment.

A few simple rules which are essential in the adjustment of plows for tractor plowing are given by Donald McDonald, a well-known plow man.

1. Adjust the springs till the weight of the plow beams and bottoms is practically balanced.
2. Hitch plow at a point on tractor drawbar midway between horizontal centre of tractor and horizontal centre of plow.
3. Adjust vertical position of hitch so as to be substantially level on working position.
4. Set levers for first position and open first furrow.
5. Change levers to working position.
6. When plowing is finished, set the levers in transport position and take plow and tractor to nearest shelter.

Co-operation, not competition, is the life of business.

Don't pray cream on Sundays and live skim-milk the rest of the week.

Hogs

Fattening hogs gained as follows in Missouri tests:

23 per cent. faster on a ration of corn and middlings than on corn.

32 per cent. faster on a ration of corn and linseed oilmeal than on corn alone.

32.6 per cent. faster on a ration of corn and tankage than on corn alone.

38.5 per cent. faster on a ration of corn and soybeans than on corn alone.

17.6 per cent. faster on a ration of corn and germ oilmeal than on corn alone.

7.4 per cent waster when self fed than when hand fed the same ration.

Self-fed hogs require no more feed to produce a given amount of gain than when hand fed. When each feed is placed in a separate "self-feeder" the hogs will choose the different feeds, so that the gain will be both rapid and economical. The saving of grain resulting from the use of pasture crops is from twenty to fifty per cent.

The kind of forage crops best adapted for hog pastures is illustrated, as follows:

Blue grass produced 324.6 pounds of pork per acre.

Clover produced 567.7 pounds of pork per acre.

Rape and oat forage produced 354.1 pounds of pork per acre.

Rape, oats and clover forage produced 414.6 pounds of pork per acre.

Soybean forage produced 117.6 pounds of pork per acre. Rye grain forage produced 211.7 pounds of pork per acre.

How We Handle Straw.

We always fill our empty barn mows, sheds and stable lofts with straw to fullest capacity when we thresh our small grains. In one we store oat-straw for feeding with hay and corn-stover to the horses, cattle and calves. Another one holds our wheat-straw for bedding, strawberry and raspberry mulches, nests for the swine and calves, and scratching material for the hens.

Another mow holds the rye-straw, coarse and long, which is the best material we can find for the winter poultry houses in which the hens can dig and scratch and never wear the fibre into dust and short cuts. Last autumn, when we shredded into our barn a quantity of corn-stover, we busied ourselves at no other task than to keep pitching bunches of wheat and oat-straw into the open vent of the blower, mixing it automatically with the fodder. It made splendid feed, and helped to keep the fodder from packing and molding in the mows as so often happens.

This season we shall store a quantity of straw in reach of the blower and mix this with corn-stover half and half. Makes it go farther in feeding, and is a most splendid feed for wintering the animals that do little work.

For moles and pocket gophers, dissolve strychnine in boiling water; soak sweet corn in it twelve hours; put a few grains in the gopher hills and in all of the mole runs. One treatment puts them all to sleep.

Supremacy of Marquis Wheat.

The farther it goes the better it goes can fairly be said of Marquis wheat. Born in Canada at the Ottawa Experimental Farm, it has come to be recognized as the standard wheat of this country, and according to the Weekly News Letter, published by the Department of Agriculture at Washington, D.C., has been found by the specialists of that Department to be the leading variety of common wheat grown in the Northern Great Plains of the United States. This has come about in the last seven or eight years, Marquis wheat having been introduced to the States in 1913. It is hardly necessary to refer to the many victories that have been gained by this variety at the annual soil products expositions held in the States. They have been thoroughly chronicled as they occurred and have redounded to the credit of Canada, particularly of Saskatchewan. Frequent efforts by generous advertising have been made to introduce new varieties, but Marquis has held its own and is to-day more extensively grown in Saskatchewan and in some districts of Manitoba and Alberta than all the other varieties put together. Hundreds of varieties of foreign and domestic wheat have been tested by the Washington experts, but for growth in the northern States none have proved the superior of Marquis. The better varieties of Durum wheat have proved more than the equal of Marquis in one or two particulars, but every one has been proven by experiments to have a smaller loaf volume. Data obtained at Washington on rust infection showed that Marquis had a less percentage than any other commercial variety of common spring wheat excepting only Durum. Each wheat sample was analyzed for nitrogen and the crude protein content determined. Marquis wheat had an average protein content of 15.3 per cent. Other common spring wheats rather less. It must be understood that these samples were not all taken from stations or districts favorable to the growth of Marquis.

Thresh Your Own Grain.

If you own a gasoline engine for pumping water, sawing wood, cutting feed, grinding grain, etc., there is no more profitable investment than the purchase of a small grain separator.

Much grain is lost annually, or the quality of the grain is reduced, due to inability to secure a thresher at the proper time. From experience, I know this to be a fact.

A small separator will do just as good work as a large one, but, of course, not so rapidly, though you will be surprised at the capacity. One that can be easily operated by an eight or ten horse-power gasoline engine will thresh from 400 to 500 bushels of grain or more a day, and the work can be done far more cheaply than with the hired thresher. Better still, we have the satisfaction of knowing that we can do the work any time we get ready, not having to wait from ten days to three weeks for the neighborhood thresher to come around, which often means a lot of lost or damaged grain if a rainy spell should happen to come while waiting for the outfit.

Another advantage of the small individual separator is that after we get through our own crop (if we have the time to spare and feel disposed to do so), we can step outside and thresh a crop or two for our friends or neighbors, all of which will be practically clear cash money.

Pure and Wholesome Food Products.

A very apparent effect of the work of the Department of Agriculture at Ottawa is the improvement that has taken place in the cleanliness and purity of the people's food. Especially is this true of the work performed by the Live Stock and Health of Animals branches. Better equipment at the stock yards has been brought about as well as improved facilities for transportation on the one hand and, on the other, rigid inspection at the abattoirs and slaughter-houses insures healthy and wholesome meats for consumption. It is impossible to overestimate the value of the work that is thus being accomplished. At the canneries also cleanliness and wholesomeness are assured by the regulations that are enforced by inspectors and supervisors under the immediate control of the Health of Animals Branch. Eggs and poultry, under the Poultry division of the Live Stock Banch have been advanced in public estimation. In bygone times householders always had certain suspicions of the eggs supplied at the breakfast table and used in cooking. They usually expected one, two or three, and sometimes more, in a dozen, to prove unpalatable, and were rarely disappointed. To-day they buy and cook with confidence. The same is true of all other articles of food watched over by this and other departments.

Marketing Home Products

By Grace Vale Grey

If you are interested in finding a market for your wares you will find four methods of selling: Direct salesmanship, through manufacturer's agents to whom you pay a commission, through advertising, and through personal letters to desirable people and business concerns. Without a doubt the first method, that of selling direct, is the quickest and the cheapest.

It is quite possible to sell to a few persons or to one large concern; and if you prefer the latter course, it will be well to call upon the leading grocers of nearby towns and cities. You will doubtless find that dealers are willing to enter into arrangements by which they can depend upon a regular supply of reliable products.

Should this be your first venture in the business world you may say, "I'm timid, I can not talk to strangers, and pride keeps me from telling my own local dealers that I want to sell my home-made goods." This is a wrong, as well as a false, attitude. You have a perfectly good business proposition to make and good business men will take advantage of it. Have confidence in yourself; that is all that is needed to start in the business. You will find nice people everywhere. I have always been courteously received by business men, whether they were butchers, grocers, commission men, express company employees, or heads of departments in large, wholesale stores.

Provide attractive labels for your goods, whether they be eggs or preserves. It is wise to use the name of your farm, so that customers will soon get used to it and order "Pine Crest Preserves" or "Shady Lawn Broilers." If you put your goods out in an attractive form, guarantee their superior quality, secure one good grocer in each town in which you sell, and fill your orders promptly, you will be surprised to see how much you can sell.

In selling directly to the consumers, the moneyed people are most likely to want your products, and these are the people whom you should seek. Many housewives are out of town during the summer months and would gladly order their winter supply of fruit and vegetables from a reliable person. Call upon such people if it is at all possible to do so, taking with you samples of your products put up in an attractive form. Your goods are worth more than ordinary canned goods and you do not have to compete with them. You never see "fancy" goods on a bargain counter; so do not put a cheap price upon your products.

You can also go to your nearest city and interview the managers of the best hotels and restaurants, the stewards of social clubs and the managers of railroad dining-cars. Cater to a good trade, for a large number of people are on the lookout for the best products. Go to see these people on your own initiative or ask a friend to recommend you to them. If you really can produce something better than ordinary, you will have no difficulty in seeing these people and selling to them.

Delicatessen shops, tea-rooms and clubs pay big prices for home-prepared food. Your express agent will give you the names of such private customers, for express companies are willing to co-operate in every way possible to help the farm woman place her products and to assist city folks to get country food. Go to the express company in your town and talk to the agent. Without a doubt he will be able to put you in touch with desirable customers. Having secured their names, write these people what you have to offer and payment can be made through the express agent. This is the safest way to transact business between people unknown to each other.

The second method of selling your goods is easy but expensive. There are many salesmen who would be glad to push your goods, particularly if you have a good novelty. Salesmen sell on commission, twenty per cent. being about the average. There are also big jobbers who sell to retail stores. The jobbers will be able to bring you big orders if your products merit it; but here again the expensive commission must be considered and only a large output justifies this form of selling.

Many people prefer advertising instead of the direct salesmanship or manufacturer's agents. Some of our biggest country trade has come about through advertising. To build up a trade in this way have circulars, describing your products, printed, and mail them to possible customers living within reasonable distance. The manager of your telephone exchange will get you a list of such people. Your pamphlet can be in the form of a letter, with a description of the varieties and a price-list. Give it a "catchy" title, so people will want to read it. A folder of small size containing about four pages is a good form. In this folder or leaflet, tell the reader who you are—that is, give enough information about yourself and your experience in canning and preserving, or as a grower of fine poultry to give strangers confidence in you. Do not be afraid to spend ten or fifteen dollars in mailing leaflets; they will not cost much to print and one-cent postage will do for a leaflet of this kind.

Roadside advertising also pays. A blackboard with items and prices distinctly written upon it will attract the eyes of all who pass by, while considerable business can be obtained by letter-writing. The letters must be businesslike in appearance and expression, and should be typewritten.

These are but suggestions; other ways may present themselves, but it is no trouble to find a market if you just start out determined to find one.

The Welfare of the Home

The Imaginative Time—By Anna Mae Brady

Mothers, did you ever stop to realize the importance of that period in your child's development when his little mind is free to wander over the hills of fancy and he is finding so much difficulty in linking up the real and the unreal? It is the opportunity time of life and every one of us to whom is entrusted the care and development of a little child needs to study and understand it in order that we may make the most of it.

All of us are dreamers of dreams, and it is well that it is so, for every worthwhile act that has been given to the world was first a dream in the mind of some person. Every book that was ever written, every picture painted, every field cultivated, was first just a flight of imaginative fancy. All of us go this far, but it is not enough to dream; we must do as well. The successful person is the one who thinks over his dream and organizes his thinking until finally it is no longer a dream but a reality.

We grown-ups would give the gold of Midas, were it possible, if we might have developed in us the power of vision, the power to see life imaginatively. Yet our little tots from three to six have this power to the nth degree, and instead of fostering and organizing it we do our best to stifle it as a trait not to be desired. The seed of genius lies in many of our children, and parents and teachers who do not understand, do their utmost to crush out the very thing which later they wish them to have.

"But," you say, "if I encourage this, will it not make my child untruthful? Already he juggles the truth in most alarming ways." As mothers and leaders of children, we must be able to distinguish between a flight of fancy and a deliberate intent to deceive. Fortunately for us the latter cases are very rare. If in doubt ask the child; if it is a flight of fancy he will tell you so.

What we need to do is to help the child see his vision clearly and then furnish him with some plastic material with which he can make his dreams come true. Fairy tales are excellent for the imaginative child. He is living in their world and they help explain for him that almost inexplicable thing called life. Free hand cutting, clay modeling and the sand table furnish material which will enable him not only to see the picture more clearly, but will also lead him to be a doer as well as a dreamer, both of which are necessary.

The imaginative period, the opportunity time, comes but once, so let us make the most of it.

Extension of Canada's Seed Trade.

During the year 1920 Canada's export seed trade made a considerable advance, owing in no small degree to the efforts of the Dominion Department of Agriculture and the Department of Trade and Commerce. The Canadian Trade Commissioners supplied lists of prospective customers abroad for Canadian seed. These were communicated with and their requirements placed before Canadian exporters. In this way an increased export of seeds was brought about to the United States, Great Britain, France and Newfoundland. To Ireland alone approximately 100,000 bushels of fibre flax seed, worth about $1,000,000, was exported. In British Columbia, field root and garden vegetable seeds, amounting to 150,000 pounds, were marketed through the United Seed Gowers, Limited, Penticton, B.C. Some 75,000 pounds of mangel, swede turnip, and field carrot seed, grown by the Experimental Farms, were sold at current wholesale prices to farmers' organizations and individual farmers. It was deemed advisable to confine the marketing of this seed to Canada, so that farmers might have the exclusive advantage of using this high quality seed. Circulars detailing the available seed potato supplies in Prince Edward Island, Nova Scotia, New Brunswick, and Quebec, proved an important factor in relieving the shortage in Ontario. Demonstrations conducted on 117 farms in Ontario and Quebec with mangel and swede turnip seed resulted in showing the superiority of home grown seed over foreign. Seed laboratories are now maintained by the Dominion Department of Agriculture at Ottawa, Winnipeg, and Calgary, and at those points some 28,000 tests were carried out. Samples of wheat, oats, barley, timothy, and clover were tested for vitality and, at Calgary, investigation was made into the effect of frost on germination.

Our Insectivorous Birds.

It may appear startling, but it is a fact that if all the insect pests ravaging our crops could be suppressed, and all the plant and tree diseases eradicated, and the increased revenue derived by the country thereby could be turned into the Dominion Treasury, there would need to be no question of taxation. This idea is largely substantiated by the fact set forth by the Entomologist of the Dominion Department of Agriculture that a conservative estimate of the annual loss in Canada to field, orchard and garden crops due to destructive insects is upwards of $200,000,000. As our authority says: 'To this huge devastation must be added the enormous annual destruction caused by forest insects, stored product insects, etc." Upon this statement the Entomologist founds a well-sustained argument in favor of the protection of insectivorous birds, such as the prairie horned-lark, the robin, the somewhat despised crow, the red-breasted Nuthatch, the Western Tanager, the Myrtle Warbler, the Chickadee grouse, gulls, and many other kinds. In the State of Iowa it has been estimated that tree sparrows annually devour something like 895 tons of weed seeds! Speaking of the robin, an investigator in Toronto found that a single bird kept in confinelent at 165 cutworms in one day. Another authority states that a brood of prairie horned-larks consumed 400 cutworms in one day. This same authority, namely, Mr. Norman Criddle, Dominion Entomologist in Manitoba, declares that six crows are capable of consuming three bushels of grasshoppers in one season. It is recorded that in certain places in Manitoba areas of growing grain have been saved from destruction by the pestilent grasshopper owing to the presence of large flocks of gulls. In light of these facts it is gratifying to be informed by the Dominion Entomologist, Mr. Arthur Gibson, to wit, that the importance of protecting our useful birds is becoming more and more recognized, especially by farmers and fruit growers.

THE CHILDREN'S HOUR

Once upon a time there was an ambitious mole who wished to amount to something in the world. He felt sure that there was more to the earth than the dark underground tunnels that his family inhabited, although his father told him repeatedly that there was nothing above ground worth looking at.

The moles are hard-working little people, and this particular family were employed in a mine and dug early and late for their living. One day as the little mole was at work in a lonely corner of the mine he met the old gnome who employed them and got into a conversation.

The old gnome was in a particularly good humor, having had mushroom pie for his dinner, and as there was no one about, he condescended to be pleasant to the little mole boy. When Tommy—that was the mole's name—asked him about the earth, he described, at great length, the forests and meadows, the trees and blue skies, the sun and the stars, and he even told him about people—which was funny, for gnomes do not usually believe in people.

Tommy could scarcely wait till evening that he might tell his family the wonderful story. But his father fell asleep in the middle of the recital and Mrs. Mole was so busy over her house accounts that she only nodded once in a while without even hearing. Tommy was discouraged, and all the next day he was turning over in his mind ways and means of seeing some of these things for himself.

One day instead of going to work with his father he pretended to have an errand to do for the old gnome. He dug up and up and up till at last he could poke his head right out. He looked all around; then he was so disappointed that he flopped down on the ground and cried. Imagine!

"Everything's just the same!" he wailed dismally.

"What's the same?" A little fairy on her way to visit a sick bird family stopped beside him.

"The gnome said the trees were green and the sky was blue and everything is brown!" wailed the mole again. "Are you a person?"

"Not quite," laughed the little creature softly, "I'm a fairy!"

"Well, you're brown, too!" the mole sat up and viewed the little fairy dolefully.

"Why, I'm pink!" cried the fairy indignantly. Then all at once she began hopping around in an excited circle.

"I know what's the matter! I know what's the matter!" she laughed. "You wait here!"

Off like a flash she scurried, and just as the mole was about to do down into his hole again she returned with—what do you 'spose? A dear little pair of spectacles.

For, of course, dear heart, a mole is almost blind and everything does look brown to him—that's why he thinks the whole world is like his dark, damp home underground.

Now these were magic specs and no sooner did Tommy look through them than he saw all the beautiful things of which the gnome had told him—the blue sky, the green trees and, best of all, the dainty little fairy. All day he ran hither and thither, admiring everything he saw, and when night came and the stars came out over the treetops he could not go to sleep at all!

"I will never live underground again!" he said delightedly. And he never did. In fact, he got a position as chief clerk in the fairy bank and lived happily for the rest of his days. Isn't it a pity that all moles cannot have fairy specs?

If ill fortune pursues you and you lose everything else, keep your temper.

Canada needs more people and capital to develop her fertile lands and natural resources, and presents opportunities unsurpassed by any country in the world.