Soils and Crops

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Storing the Potato Crop.

Storage is an important part of potato raising, where the crop is not sold direct from the field. The crop should be stored in a dry, well ventilated cellar which is perfectly dark. Great losses, unnecessary, occur each year from carelessness in storing the potato crop. The tubers are placed in wet or comparatively warm and poorly ventilated cellars and piled in great bins, giving almost ideal conditions for the development of the disease which may be in them and very favorable conditions for healthy potatoes to develop rot.

The expense of putting in a good system of ventilation in a cellar is soon offset by the better condition in which the potatoes keep, and the profits increase fast when they are properly cared for. At any rate, a good circulation of air should be provided around the stored potatoes. Instead of piling them against the wall or on the floor, slats should be nailed a little apart about six inches or more from the wall. This insures circulation of air behind the pile. A temporary floor may be put in about six inches above the cellar-bottom with crack between the boards. This also permits circulation under the pile. Then if the piles must be made very large, square ventilators of wood made of slats and running from the top to the bottom of the pile should be put in here and there through the pile. These, with the ventilation at the sides and bottom will keep the potatoes in much better condition than if they are in a solid pile.

Another good plan is to keep the potatoes in large crates made with slats close enough together to protect the potatoes from falling out. The ventilation between these crates assists in keeping the tubers in good condition. The temperature should be kept as near thirty-three to thirty-five degrees as possible. The cooler potatoes are kept without freezing the better. Not only are the seed potatoes injured by being permitted to sprout during the winter, sapping up their germinating powers, but the potatoes are injured for eating purposes as well. And when they are held for spring sales, the shrinkage is larger where they have not been cool enough. The storage room should be arranged so that during moderate weather air may be let in during the night when the temperature is lowest. The ventilator should be closed during the daytime.

The custom of storing the surplus crop, not marketed direct from the field, outdoors, is growing, especially where drainage conditions permit. To store, say one thousand bushels, a hole in the ground fourteen feet wide, from four to four and a half feet deep, and about thirty feet long, will give sufficient space. The sides and ends of the hole may be lined with boards to protect them from the earth falling in, though the earth may be braced back with poles. Fill the hole to a height of three and a half feet with potatoes, then place small logs along the sides and roof. The depth of this side log and elevation in the centre of the roof is to be left as an air space and no straw or rubbish whatever is placed on top of the potatoes. A roof is made with poles placed close together. There should be but a slight elevation at the centre of the roof.

When the poles for the roof are in place there should be a little hay thrown over them to keep the soil from falling through. The roof should be well sodded and some of the loose dirt which lies at the side shoveled over the sod to make a total depth of sod and earth of one foot. Then another foot of well-rotted, dry horse manure will keep the potatoes during the most severe weather.

The natural ground heat from the bottom keeps the temperature fairly even. In a pit this size there must be provided three ventilators, each of which is about four-by-six inches, which may be made of ordinary boards, one ventilator placed at each end of the pile and one in the centre. These should be put in when the sod is being put on, and made long enough to reach out of the mulch of manure. The ventilators must be closed in very cold weather by putting old sacks in them and when the weather becomes frosty the centre one is kept closed all the time. No potatoes should be directly under the end ventilators, a the drip of water from them might cause rot. A thermometer may be used to test the temperature. But the temperature should not go much below forty degrees in a pile of this kind. If the pit is dug four or five feet longer than the thirty feet, and covered over, this will make an excellent place to take out potatoes early in spring without moving the remainder of the pile.

If a small quantity is to be stored and also where drainage conditions are not good, it is advisable to excavate not more than six inches. The shape of the pit should be long and narrow. The potatoes should not be piled too high. Good wheat straw is the best litter to use over the potatoes. This should be carefully laid with the general direction of the straw up and down the side of the pit and thick enough to be about six inches deep after a layer of earth is thrown over it. When the weather grows colder add more soil; then later still another layer each of straw and soil. Before extreme temperatures are here a heavy coating of clover chaff will keep the pit dry and free from frost danger. Where no chaff is available give the pit another coating of straw and a heavy application of dirt.

A Banker Who Kept a Cow.

This is the story of a Wisconsin banker named Jost, who was not satisfied with merely telling farmers how they should farm better, and with lending them money to do it with. Believing that many of his farmer customers were not getting as much money out of dairying as they should, he decided to set an example for them. The results he got surprised him as much as it did the farmers.

Mr. Jost is cashier of a bank in New London, Wisconsin. He bought a grade Guernsey cow, which he named Cherry, and installed on a town lot because he had no farm. So he had to buy all her feed and roughage, and even bedding. But he made a success of his dairy-farming, though farmless, and, being a bank cashier and used to figures, made a second success on top of that—a complete record of everything that Cherry ate, slept on, and yielded. Farmers round about had a good deal of fun at his expense for a while, but one year later they were coming to get the banker's cost figures. They wanted to know how he did it. There was such a demand for these figures that he printed them in a little pamphlet, and they are reprinted in "The Banker-Farmer."

Cherry made a profit of $117.83 her first year, allowing $10 fertilizer value from manure. Everything that she ate was weighed and charged against her. Her diet was varied—over two tons of mixed clover and hay, with two tons more of beets, rutabagas, cull potatoes, cull cabbage, cornstalks, wheat bran, hominy, ground oats, ground barley, cornmeal, oilmeal, and three different kinds of mixed feeds, along with stock conditioner, salt, and five and a half months on rented pasture. Her milk was weighed daily, tested for butterfat, and the milk and butterfat used in Mr. Jost's family credited to her account, at the price paid by local creameries.

The bank cashier had a regular schedule for feeding and milking Cherry, worked out by the clock. It took from a quarter past six to seven in the morning to milk and feed her, a few minutes at noon to feed and water her again, and from a quarter past six to seven in the evening for milking, feeding and bedding.

Her ground feed was balanced on her milk yield—for every three pounds of milk Cherry produced her owner fed her one pound of ground feed for the first nine months, then one pound to every two pounds of milk the next two months, and a pound to every pound and a half the last month. She produced 10,670 pounds of milk during the year, equalling 461.33 pounds of butter, or 576.76 pounds of butterfat, or 5,062 quarts of milk.

Preserving Eggs for Winter.

The comparatively low price at which eggs have been selling during the present summer is no indication that they will be cheap next winter. The provident housekeeper will therefore put down a supply to be used from the late autumn until the early spring. There are two preservatives that have been found to be about equally valuable for preserving eggs in good condition. Water glass, or sodium silicate, is now very generally used, but some householders dislike to handle this product and therefore select lime water as the preservative material.

Experiments carried on for many years at the Experimental Farm at Ottawa, and referred to in Exhibition Circular No. 42, have proved the value of this solution. It is very important that the eggs be stricly fresh and those that are stained washed clean. An ordinary crock or keg is a very suitable receptacle. Lime water suitable for egg preservation is water carrying as much lime in solution as is possible. About one pound of lime is sufficient to saturate 70 gallons of water, a little more than is needed in practical experience because of impurities found in the lime. From two to three pounds of lime is about the proper amount to use for five gallons of water. The method of preparation is simply to slake the freshly burned lime with a small quantity of water and then stir the milk of lime so formed into five gallons of water. After the mixture has been kept well stirred for a few hours it is allowed to settle. The "saturated" lime-water is drawn off and poured over the eggs, previously placed in a crock or water-tight barrel.

As exposure to air tends to precipitate the lime (as carbonate), and thus to weaken the solution, the vessel containing the eggs should be kept covered. The air may be excluded by a covering of sweet oil, or by sacking upon which a paste of lime is spread. If after a time there is any noticeable precipitation of the lime, the lime-water should be drawn or siphoned off and replaced with a further quantity newly prepared.

It is important that the eggs during the whole period of preservation be completely immersed.

Water-glass as purchased at the drug store is a clear thick fluid resembling extracted honey. In its preparation the water used should be boiled, and experiments have proved that the solution is thoroughly satisfactory if made a little more than half the strength recommended on the receptacle in which it is sold.

Building Up the Ewe Frock.

The comparatively low price at which wool has been selling during the present season should not discourage the keeping of sheep nor the care given the flock that are to be maintained. Indeed, the situation affords an opportunity to improve the existing flocks with little outlay of money. The indications are that the low prices are not likely to continue, more especially for the finer grades of wool, because Canadian manufacturers are learning to use Canadian wools, which are now sold in much better condition than was the case some years ago before official grading was practiced.

The best time to purchase ewes is soon after the lambs have been weaned. At that time the breeding and milking qualities can be readily ascertained, and besides, ample time is available for preparing the flock for the next crop of lambs. Strong, well-covered shearling ewes are seldom disappointing, and might very well constitute at least a portion of an extensive purchase of new stock. These ewes should have the run of the stubble fields, not sown to clover or old pastures, until the end of September, and then given access to a rape or clover field. If this green food is not plentiful, it will pay to feed a small quantity of grain to make sure the ewes are strong and thriving well when bred. This is the secret of having a large percentage of strong twins dropped. It may be well, as claimed by some, to breed from ewes themselves twins, but even so, they must be strong and thriving well to have the best results because not only will larger returns be assured, but the lambs will be stronger and more likely to live and do well, providing the treatment of the ewes continues good up to lambing time.

It is of great importance that the flock be dipped before the cold weather arrives. It is exceedingly poor policy to feed a horde of sheep ticks as will be the case if the dipping is neglected before the housing season. The details of dipping are covered in Bulletin No. 12 of the Live Stock Branch at Ottawa. It is entitled Sheep Husbandry in Canada.

A Portable Water Trough.

For the movable farrowing house that most swine breeders now prefer, an excellent watering trough can be made from the end of a 50-gallon barrel. Each barrel will make two good troughs.

Saw squarely through all the staves about two inches above the third hoop, thus making a trough about 10 inches deep. A circular cover is made of one-inch pine boards nailed on strong cleats and fastened to the trough by means of thumb nuts. In the edge of this cover a semicircular opening is cut, five inches in diameter, while directly beneath this the edge of the trough is cut down flush with the top of the upper hoop.

This trough is not easily upset. It keeps trash and dirt out of the water. And it keep the water cool. It is more easily made than a concrete trough, when the farrowing house is moved to a clean site.

The Farm Women of Canada

BY EARLE W. GAGE.

The new attitude of women in general towards the land and in the desire so many of them evince to get back to the out-o'-doors life, has been very noticeable since the conclusion of the war. The past two summers hundreds of women and girls have flocked to the farming districts and toil in the open air, and this has been attended with the most gratifying success. The Canadian Department of Labor and other organizations have been literally besieged with inquiries from women and girls who desire work on the farms, not in a domestic capacity but in the open of the fields.

Women took up practically every phase of man's work during the war and in the majority of cases carried it out as well as her brother. When the termination of hostilities inevitably relegated many of them to their former lives and environment, it was a hard matter to take up the old threads, and little wonder that many of them, seeing their own land limited in opportunity, and overcrowded, looked across the seas to fresh green pastures awaiting the development of human hands and minds. Since the signing of the armistice with the demobilization of the army, or more correctly, since the availability of transport after the return of the Canadian troops, women from the British Isles and elsewhere have crowded the steamers arriving at Canadian ports, and thousands have made the trip via New York, rather than wait months for a St. Johns or Halifax boat. Many were war brides but the greater number consisted of those for whom war employment had gone with the return of the men from the front and who, finding themselves belonging to a class of two million superfluous women, decided to start out anew in a virgin field where their efforts were not only obviously needed but urgently sought.

This movement continues unabated and every steamer sees parties of fresh-cheeked English women arriving under government auspices to find for a St. John's or Halifax boat. Many of them belonged to various batallions of the women's army, many are experienced land workers, others followed pursuits purely feminine. Groups are bound for domestic service, others to fruit sections for light land work, and still others, with limited capital, are taking up small pieces of land for themselves. Groups of women go straight from the boat to linen mills and other factories, being engaged in the old land and brought out by the management of these industries.

It is a burning question in the older countries just what opportunities await women and girls in America, especially in Canada, where an organized effort is being put on to secure this class of immigrants, much needed in a growing country. In Canada the sexes are more nearly balanced, which offers a more expansive field to women.

No tribute is too great or worthy which can be paid to the pioneer wives and mothers of the Canadian agricultural regions, but as a general rule agriculture is carried out on too large and expensive a scale for women to take any but a supplementary part. It is not uncommon to see a farmer's wife driving a binder at harvest while her hnsband is on an accompanying machine or shocking the grain as she cuts, but this is occasional and the wife of the modern farmer finds her time well occupied in her household duties, her poultry and her superintendence of the dairying.

There are to be found, however, a few instances in which women (in one case a former successful London journalist), make a decided success operating a grain or mixed farm. This, however, presupposes a good deal of capital to initiate the enterprise, and such cases are very few. Four ex-army nurses of Montreal who, evidently suffering from the disease of the returned soldier, thought to take advantage of the soldiers' settlement act which permitted them to take soldier land grants for their services overseas and make the long trek to the Spirit River district of the Peace River country, in northern Alberta. Here they have taken four quarter sections, in the middle of which a cabin has been erected, and have commenced their operations with the utmost confidence of success. However, such cases are exceptional, and woman's place on the large farms of the western country is usually as a helpmate to man, in which it must be said, there are thousands of openings.

The gentler phases of farming appeal to women, especially the robust, sturdy out-of-doors type, and this mode of livelihood is particularly appealing to those girls who worked on the land during the war, and in the experience they gained learned to love the free, untramelled life.

In British Columbia, especially in the settled fruit areas, many women are operating small orchards or fruit farms and doing all the work entailed themselves. In the same districts, near industrial centres, many women are finding poultry raising a profitable means of livelihood and a calling which does not overtax their physical strength. Still others find a source of healthy revenue in beekeeping.

In the Niagara peninsula and other fruit districts of Ontario the same conditions prevail, and here women are to be found wrestling a living in the pleasantest environments and working conditions from the easily yielding soil. Each year sees a migration from the cities and towns to the orchards of the Pacific Coast province, of women and girls of every profession and calling who find picking and packing fruit a profitable as well as pleasurable manner of spending a holiday.

Women of Canada may be said to have tackled most things and made a fair success of them, even to attaining cabinet rank in the provincial legislatures. In fact, the presiding officer of the British Columbia parliament is none other than a woman, the first in the entire British Empire to occupy this stately and important position.

Indications are that girls are becoming more and more attracted to the active side of farm life, and it is significant to note that the 1920 graduating class at the Ontario Agricultural College included the first woman in Canada to take the degree of Bachelor of Scientific Agriculture.

The Welfare of the Home

A Canadian Product—By Mary E. Ely.

The only child, that over-protected and unprotected little soul, whose parents are so unintelligent in their desire to be intelligent, so inconsistent in their consistencies!

He is an appealing child, even in his most trying moments, and a word in his defence may soothe and encourage those who at times misjudge and find him almost unbearable:

"I believe all children good,
If they're only understood,
Even bad ones, 'pears to me,
'Sjes' as good, as they kin be!"

The only child is surely sinned against rather than sinning. He has much with which to contend, this lonesome child, having no legitimate vent for his social life with those of his own kind, in years and stage of development, no one who can think his thoughts, play his games and see his little viewpoint.

"At evening when the lamp is lit
Around the fire my parents sit,
They sit at home and talk and sing
And do not play at anything"

sang an only child, our whimsical Robert Louis Stevenson. It is companionship a child craves, and an opportunity to establish relations on his own plane with other children.

Of course a little child dearly loves the undivided attention of his elders, to be singled out as an object of attention, the satellite around which those loving him revolve. He is at the mercy of those persons who at times overwhelm him with attention and affection as the mood seizes them, then, when the child least expects it, thrust him aside without a word.

He is constantly being experimented with, and by inexperienced parents, who to follow any other profession but parenthood, the greatest one in the world, would fit themselves for it by years of study and research.

A nurse can keep a child physically fit, she is trained for it. Parents should go into training, curb their selfish pleasures, and become sane, balanced, earnest, lovable, prayerful in their conduct toward this only child. Then he can build right standards of behavior and control, thus producing the mental, moral and spiritual qualities essential to good citizenship.

A worth-while slogan provocative of thought, was released at a Child Welfare Club,—"The chief business of society, to evolve parents fit for children to live with," to which we might add Froebel's illuminating words "Come let us live with our children."

THE CHILDREN'S HOUR

After Harold Dean had walked a whole mile to the home of Uncle Ike Johnson to buy a puppy, he was somewhat disappointed. Only two puppies were left, and of these the aged owner intended to keep the better one.

"I'm sorry," said Uncle Ike, "but if you'd got up an hour earlier this morning and had come over here as soon as you ate your breakfast, you'd have had the chance to pick the best out of three, besides the pup I'm keeping for myself. Sonny, it's the early bird that gets the worm and the early fellow that gets what he goes after."

The birds had awakened Harold that very morning. He remembered how sweetly they had sung and how he, wishing to arise, had delayed and delayed until—well, an hour later he had opened his eys and found the sun fiercely greeting him and all outdoors.

Would Harold buy the lone puppy, the only one for sale? Uncle Ike wanted to know. There was nothing much the matter with the baby dog, just flappy ears and bad markings.

"Though he isn't much for beauty," Uncle Ike said, "he's most likely smarter than his better-looking brothers and sisters. The prettiest is hardly ever the best. Besides, what if he is Hobson's choice? He'll grow up and be a fine friend to you."

Harold was puzzled. He could not figure out why Uncle Ike used those two odd words, and what the old man had in the back of his mind.

"Hobson's choice?" the boy asked.

"Yes," came the answer. "It's this pup right here or none."

Presently Harold dug down into his pocket and brought out three fifty-cent pieces and a quarter. Now how much did he pay for the puppy?

"I'll call him Hobson but make it Hob for short," he said, "if you will tell me what Hobson's choice is."

Uncle Ike smiled. He shook his head from side to side. It was a secret and he couldn't tell; that is, he would say no more.

"Look it up in your father's big dictionary," he called after Harold. "A fellow keeps what he gets by working for it. Now if I should tell you, it would most likely go in one ear and straight out of the other. Look it up yourself and you will always remember it."

Harold carried the puppy in his arms, for it had kind eyes and a winning way. When he arrived at home he got an old-fashioned soup plate and filled it with milk. The new pet wig-wagged his thanks in real puppy style.

A few minutes after the wee animal had dined and then dropped asleep, Harold Dean went to the stand that held his father's big dictionary. He pressed the clamps and opened the big book. He turned to the letter "H," then to "Ho," and to "Hobs" where he soon found the term he was looking for. In a corner at the bottom of the page he read the two words that Uncle Ike had spoken, also the small print that followed them. This is what Harold saw:

"Hobson's choice: take what is offered or nothing—so called because Tobias Hobson, an English stable-keeper, required every customer to use the horse which stood nearest the door."

Just at that moment Harold heard a whine and some clumsy scratching at the door. As Harold opened it the puppy toddled between his master's legs. Harold stooped, grabbed the furry fellow, and said:

"You were Hobson's choice sure enough, the only one left, and you're Hob now and forever. How soon will you learn your name?"

Hob soon learned to answer to his name and Harold was always very glad that Hob was Hobson's choice.

Plant a tree. You can do that much for the next generation. The oak is noted for its strength; the blue spruce for its formality; the birch for its grace; the basswood for its ease; the evergreens for their warmth, and the weeping willow for its sadness. Blessed is the man who plants a tree.

Hogs

One hundred pounds of gain from each 294 pounds of feed was the mark set by an Indiana farmer in growing his spring pigs last summer, from the time they averaged 35 pounds until they reached 135 pounds. When I asked him how he lid it, this is what he said:

"I have learned that I can grow shotes most economically during the summer when I feed two or three pounds of feed for each hundred pounds of liveweight on good clover pasture."

At weaning time he was feeding a ration of ear corn, wheat middlings, and ground oats. The last two feeds, in equal portions, were mixed into a thick slop with a limited amount of skim milk. This ration was continued after weaning until the pigs reached an average weight of 45 to 50 pounds, the pigs getting all they would clean up twice a day. When they had reached the above weight, the grain ration was gradually reduced, and approximately equal parts of ear corn, ground oats, ground barley, and wheat middlings were fed from this time until new corn was available.

"I did not weigh the pigs to determine how much to feed them," he said. "I simply estimated their weight and fed 2½ pounds of feed per 100 pounds of estimated weight. When the pigs weighed approximately 50 pounds apiece, I fed about 1¼ pounds of grain per pig each day. I gradually increased the amount as the pigs got heavier, maintaining the ration of 2½ pounds of feed per 100 pounds of live weight as nearly as possible.

"Experience has shown me that I can grow my spring pigs economically by feeding a limited grain ration, provided I have good pasture for them. I like clover pasture much better than blue grass. Blue grass is all right during the spring months, when the growth is green and plentiful, but during the summer months it gets tough and woody. The pigs do not like it, nor does it furnish the protein and minerals that are so abundant in fresh pasture growth. Clover grows during the summer months, furnishing a continuous growth of succulent, rich pasture.

"There's no profit in feeding a limited grain ration to pigs during the summer if the pasture is poor in quality, or when there is not enough of it to supply all the forage the pigs will eat. When the pasture is lacking in quality or quantity, I feed a little more grain; when the growth is exceptionally good, I feed a little less."

This method of feeding gave him exceptionally growthy, well-grown shotes by the time new corn was available, just the kind to make economical gains hogging off corn. When they went to market at seven months of age, they had eaten only 355 pounds of dry feed for each 100 pounds of gain from weaning time on. This gave him a margin of $877.68 on 83 head, after the cost of feed had been deducted. Taking into account all costs for feed, labor, equipment, etc., from the time the sows were bred in the fall of 1919 until the pigs were sold, the net profit was $606.01, or $7.30 per pig.

With such management he will certainly continue to make money in spite of lower prices.

The Dairy

Strong-smelling butter is caused by various things. The most common cause is exposure to vessels and rooms that are ill-smelling. The fat of butter also goes through a process of decomposition when kept too long, when rancidity occurs. Butter that is properly made, and kept free from bad odors, should keep sweet, if cool, for quite a long time, comparatively speaking. The feed has nothing to do with it, as a rule. However, when certain foods like onions, for example, are fed, the odor will be transmitted to the milk. The same applies to cabbage or green rye. The rule is to feed these just after milking.

The good layer will have not less than three or four fingers' distance between the pelvic bones and the point of breast-bone; five or six fingers' distance would be still better. There should also be good distance from the ribs on one side around to the ribs on the other side. In other words, the abdomen should be large and roomy, indicating that the hen has a large capacity for the assimilation of food and for the production of eggs. The skin of the abdomen should be loose enough to suggest an udder that has been milked out.