

Soils and Crops

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VALUABLE STORAGE EXPERIENCES.

We have found that cabbage keep best in cave or cellar storage if wrapped in two or three thicknesses of paper. The roots and stalks are left on, which makes it handy to tie them up where they occupy the least space, and where they will not get damp.

In storing cabbage for poultry feed (where more space is required), we dig a trench about a foot deep and just wide enough to accommodate a single head of cabbage. This is lined with straw and cornstalks. The cabbage-heads are placed in the trench, head down, with the roots up. Hay or straw is spread thinly over the heads, and about six inches of dirt tossed over them. With another layer of cornstalks, straw and trash over the dirt, it will freeze some, but the cabbage will keep in fine condition. The natural flavor and crispness of the product are preserved better by this method than any we ever have tried.

Where small quantities of winter radishes, turnips, beets, carrots, etc., are stored for table use, we arrange medium-sized barrels or boxes with a layer of dirt, then a layer of vegetables, till the bin is filled, when a thick layer of paper is spread over all. We keep stored products by this method till the following April, their crispness and tempting flavor remaining almost the same as if just pulled from the ground.

We usually wrap several boxes of apples in paper, particularly if there is a scarcity of fruit at storage time, because we then can utilize second-grade, cheaper products for storage. Such products are expected a few weeks after storage, to guard against spoilage, bad ones being discarded, to avoid further contamination.

In cave or cellar storage we always have been troubled by fruit and vegetables getting too warm (which shrivels them or starts sprouting), or by dampness causing rot. Improperly handled in the out-door pit, products are more easily lost than in cellar storage, since they are not where they can be watched so closely.

We have found the out-door storage pit overcomes both of these drawbacks, if properly constructed and the vegetables stored correctly as to quality and care of them. Improperly handled in the out-door pit, products are more easily lost than in cellar storage, since they are not where they can be watched so closely.

Our storage-pit is about three feet wide, from a foot to two feet deep, and as long as needed. Somewhat it is round, any desired width. The pit is on a slope, preferably to the north, for good drainage. It is lined with

hay, straw, bean-hulls, thick paper—anything to keep the products clean and dry. Old boards next to the sides will prevent caving-in of the soil. Products are poured into the pit till they form a cone-shaped heap, when hay or straw is spread over them, to a thickness of five or six inches. Next to this is a three or four-inch layer of fresh dirt. The pit is left standing in this condition till the first sharp freeze, so the coldness will be held near the stored products through the winter. In the meantime, it is well to cover this layer of dirt with some old lumber or old roofing, to guard against the entrance of heavy fall rains. A trench is run the entire distance around the pit, with an opening at the lowest point.

The layer next to the dirt may be of any kind of rotted hay, straw, corn-stalks, strawy manure, etc., for protection against further freezing. Another layer of dirt is tossed over this covering, to avoid scattering. If patted down with the back of the spade, so much the better.

Note.—For ideal conditions, a ventilator should be provided, reaching from the stored products to the outer surface of the pit. It is about six inches in diameter (we used an old stove-pipe last season). Hay or straw is stuffed into the ventilator, except on moderate, bright days, when it is removed to air out the pit.

Select only strictly first-class products for storage. Bruises, breaks in the skin, rotten specks and worm-holes mean spoilage later on.

Allow products for storage to cure out-doors as long as possible without freezing. Never allow sun or rain to strike curing products. The former will cause sun-burn; the latter will start rot.

Store products only on cool, airy days, so they will go into storage without any heat present. Never place the entire supply in cave storage or in out-door storage, but have some stored by various approved methods, so at least one part will be sure to keep.

Where stored products begin to show spoilage, sort out the ones which may be used, and either work them up or place them at once on the market. In fact, it is advisable in most cases to market all surplus stored products within two or three months after storage, to avoid all further losses by spoilage and shrinkage. This is particularly true of produce stored in the basement, as evaporation of the juices often is very rapid, and products soon are practically without value.

Certified Potato Seed.

As proving the value of certified potato seed compared with uncertified, the New Brunswick Dept. of Agriculture refers to four instances in favor of the former. In the first instance certified seed produced 202 bushels of merchantable potatoes as compared with 90 bushels from uncertified; in the second instance the certified seed gave 319 as against 251 bushels. The difference in the yields, third and fourth instances, were 296 bushels compared with 109.5 and 250 bushels as compared with 191 bushels to the acre.

The inspection service conducted by the Dominion Dept. of Agriculture has also proved highly beneficial to potato growers as is shown by the increase of the ten-year average in this country from 146 bushels to 258. By provinces the increase has been: Prince Edward Island, 160 bushels to 247; Nova Scotia, 180 bushels to 283; New Brunswick, 181 bushels to 283; Quebec, 156 bushels to 277; Ontario, 115 bushels to 233; Manitoba, 130 bushels to 235; Saskatchewan, 134 bushels to 231, and Alberta, 148 bushels to 220. British Columbia conducts its own service and consequently its production was not given in the Dominion Botanist's address before the House of Commons Select Committee on Agriculture.

In the same address the Dominion Botanist, Mr. H. T. Gussow, testified that the certified seed potato of Canada had established for itself a most favorable reputation, especially in the Eastern States.

Hogs and Sheep Up.

At all the principal markets in Canada the Markets Intelligence Division of the Dominion Live Stock Branch was able to report an increase on the average of the top prices for hogs and sheep on October 23 compared with the same date last year. At Toronto for hogs there was an average increase, taking all kinds into account, of \$2.22; at Montreal an increase of 79c; at Winnipeg an increase of 98c; at Calgary an increase of \$1.61, and at Edmonton an increase of 49c.

Of lambs and sheep the average increase, taking all sorts into account, was: at Toronto \$1.25; at Montreal 44c; at Winnipeg \$1; at Calgary 87c, and at Edmonton \$1.25.

It is better to know the work of the individual herds than the average of the flock.

Apple Storage Packages.

How to store the apples on the farm? That is a question that bothers most of us fruit growers.

As a rule the choice lies between three different packages. One may use barrels, which in many sections is the almost universal custom. Or one may use the type of box from which the apples are to be sold. Or, lastly, one may have a special type of box made for storage purposes.

The great argument in favor of using the same type of package for storage that is to be used when the apples are sold is that it simplifies the work and makes it unnecessary to provide a special storage package. On the other hand, the packages, whether barrels or boxes, become more or less soiled by use and are not so attractive when the fruit is sold.

After giving the matter a good deal of consideration and trying out most of the common packages in use, the writer is pretty firmly convinced that it will pay any apple grower who is to store apples at home to provide a special heavy bushel box for the purpose. Boxes are much more convenient to handle than barrels. When the square box stows much more economically in the storage room than the barrel. And, lastly, the smaller quantity of fruit in the box seems to very definitely influence its keeping quality.

There is, of course, an added initial expense in buying the storage boxes, but it is doubtful if in the long run they cost any more, and certainly they are a great advantage. Get some heavy bushel boxes with holes at the ends to provide for handles, and test them out.

Increased Price of Sheep.

The Dominion Live Stock Branch reports that there had been an exceptionally keen demand for breeding ewes, and supplies on public stock lots have been quite inadequate. Home demand has been able to take care of the whole supply. The sheep industry in Canada seems to be the subject of a very strong forward movement without any of the weaknesses of a "boom" in production. Supplies this year to date have been some 29,000 head below those for the same period of last year.

Outdoor dry-feed-hoppers should be of generous size, especially where there are large flocks, so there will be ample room for the fowls to help themselves.



Col. S. Perera.

One of the chief officers of the Salvation Army in India, and Principal of the Native Officers' Training School for South India, Col. Perera has been in Canada for six weeks lecturing on missionary work in the interests of the Salvation Army, and addressed large gatherings in Winnipeg, Toronto and Montreal.

The Western "Hip-Hold."

If you have occasion to pull hard on a rope, here is a simple method that will help you hold better: Loop the end of the rope over your right hand and put it behind your hip, pressing down to hold it there. Use your left hand as in ordinary pulling. This is generally called the western "Hip Hold" because in roping horses and cattle the cowboys often use it.

SHOULD THE WIDOW QUIT FARMING?

BY HILDA RICHMOND.

When a farmer's wife is suddenly deprived of her husband and has had no time to make plans, as is the case when the man of the house is taken by accident or epidemic, it very often happens that the whole life is changed for the widow and children without proper consideration. In the moment of grief and anxiety, the widow often hastily disposes of everything available and moves to town with her children, thinking this is the only course open to her. Later she feels that she might have done better by sticking to the farm, particularly if the farm belonged to her. Where the husband lingers weeks or months with no hope of recovery, he is able to arrange a clear, comprehensive program for his family and acquaint the wife with the details of his business and what he thinks is best for all, but when death comes suddenly many mistakes are likely to be made.

Nothing should be done hastily after the funeral unless expenses make it necessary to part with some of the possessions at once. When a widow sells out her stock and tools a few weeks after her husband's death, there are always unscrupulous persons to take advantage of the forced sale, and things sell for much less than their actual value. At a sale in our community such things as garden tools, smoked meats, vinegars and other produce went at ridiculous prices. Suddenly the family had shrunk from husband, wife, two hired men, three children, and an aged aunt, to a wife and three children; so it seemed folly not to let the farm produce go, particularly as it was late in the winter. What could have been sold in town at much better prices were for a song, and the grief-stricken widow awoke to the fact that she had been ill-advised in hurrying up the sale to "get away from the place where she had had so much luck."

Where the family of a farmer is large, and the wife is able to do so, it is to be kept right on farming. Expenses are so much higher in town than in the country, and the woman used to the freedom of garden, orchard, dairy, poultry yard and farm will find that she will seldom see the good things of the old life when she must pay retail prices for them. Then, too, the absence of chores for the active children and the necessary restraint that confines them to one small town lot will cause discontentment until they can be adjusted to the new life. It is true that there are more money-making occupations for boys in town than in the country, but it is also true that such occupations generally pay little. A boy who carried newspapers faithfully for three months discovered at the end of that time that all he had for his work was a dollar a week, and that he had worn out more shoes leather on the long trips than his wages amounted to.

MAP OUT A SYSTEM.

Of course it takes very careful planning to map out a system of farming that will provide for the family, keep up the fertility of the soil, and not overtax the workers. Growing boys must not be deprived of an education in order to take care of crops, so it is well to get most of the land to pasture and try to raise sheep, in order that the fertility may not run down. Also there will be two items of income each year—the lambs and the wool. As it is out of the question for a widow to keep a hired man without danger of being talked about by idle gossipers, she

must plan to have some of her fields farmed on shares to provide grain for her poultry, sheep, the few pigs and a cow that she ought to keep. Of course it looks discouraging to the widow to have her income cut in half or less, and to have the burden of farming thrust upon her. However, if she remembers that hundreds of women placed as she now is have succeeded admirably, and that her children are safer on the farm than in town, then she will be helped over many difficulties.

It goes without saying that the widow must be a woman of courage, of business sense, of sound judgment, and of a strong character. But by that same sign, the widow who dissolves in tears when the least thing goes wrong and who is afraid of hard work, will slump in town as quickly as in the country, and let her children grow up as bachelors. Not the surroundings, but the woman determines whether the result is success or failure. Often women succeed beyond all the expectations of their friends and relatives simply because they give to the task a devotion, an insight and a comprehension that was not necessary in the days when a strong, capable man was at the head of affairs, and nobody suspected the wife of being the power behind the throne. It is a wise woman who can keep herself in the background and let her husband manage, but who can still keep informed as to what is going on so that she may lend her intelligence and judgment to help without seeming to do so. The weak, whining, fearful, discouraged widow should never think of farming, but there is really little a woman can do in town or country until she has mastered herself and faces life courageously.

KEEP UP THE FERTILITY. Before the children are old enough to do the "big" jobs, the farm may run down somewhat from lack of repairs, but if the fertility of the soil is kept up the volume will not decrease materially. Often a neighbor can be hired at slack times to repair fence and make new gates, and it is possible to make workmen from town to paint and build, but the widow will have to shut her eyes to many things and not worry for the first few years. She will have to see to it that clover is sown regularly, since the supply of manure will fall short, and she will have to plan her work according to her ability, keeping chickens, a cow or two, and raising vegetables for her ready money week by week. Unless she is far from town there should be a substantial "marketing" every week in the year to keep up the running expenses, for in the eggs and cream there is a double income—marketing, and manure for the fields.

Nobody with common sense would say that it is easy for a widow to farm. Likewise, nobody would say that it is easy for a widow in any situation to make a living for a family and raise her children without the help of her father. The whole proceeding calls for heroic effort, self-denial, hard work and much earnest thought, but the multitudes of farmers' widows who have succeeded better than hundreds of poor farmers' constitutions "an innumerable cloud of witnesses" to the fact that some women refuse to pity themselves to the extent of sitting down to say the situation is hopeless. Instead, they rise up to do the work of father and mother at once in being the breadwinner and the parents.

HORSE.

For worms in horses use a mixture of two parts of salt, one part of dried sulphate of iron (powdered coppers) and one part of flowers of sulphur, by weight. The dose is one table-spoonful of the mixture in dampened feed, night and morning, for a week, then stop for a week, when the treatment may be repeated. Omit iron for a pregnant mare and increase sulphur. A more effective treatment is to withhold feed for 36 hours and then have a veterinarian administer four or five drams of oil of chenopodium in gelatin capsules and follow immediately with one quart of raw linseed oil.

Sunning Milk Cans.

A screened sun sterilizer can be made very easily which will prevent flies from coming in contact with milk utensils after they have been washed and steamed and placed in the sun to receive complete sterilization.

The sterilizer is made by covering a frame with screen wire. The frame is twelve feet long, two and a half feet high and two and three-quarters feet wide. The bottom is made of one-inch slats placed one and a quarter inches apart to provide drainage and circulation of air and at the same time afford sufficient space to hold the utensils. The framework is constructed of 1x2-inch pieces.

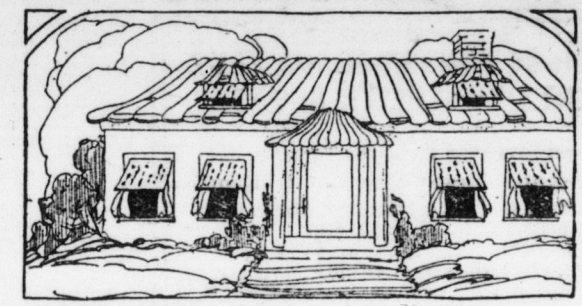
The top of the sun stand consists of a door which provides convenient way to place the pails and other equipment in for their sun bath.

The stand is attached to the outside of the milk house. Any dairyman can quickly make a screen protector for his sun stand at a very little cost and it will be a great help in protecting milk.

Feeding skim-milk has a tendency to whiten the flesh of fowls.

HOME BEAUTIFUL

By DOROTHY ETHEL WALSH.



Awnings and Their Relation to General Decorations.

Awnings are primarily utilitarian in character. Recently, however, they have joined the ranks of the numerous articles which serve comfort, but whose decorative possibilities are not to be ignored.

In this day of apartment homes it is of course impossible to take into consideration the individual interiors of a building when awnings for the whole structure are to be selected. A conservative color, or one of neutral combination will best serve. There are, however, many homes, both large and small, the awnings

of which are not in keeping with the general type and mood of the exterior. Take as an example of a good selection the small home, simple in outline, similar to the one shown in to-day's illustration. Quaintness is the element developed in the decorations. Informal, designed for simple living, this home would lose its charm if ornate or wide striped awnings were used at its windows. A small broken striped design was therefore selected, and it proves to be in mood with the spirit of the house.

Home Education

"The Child's First School is the Family"—Froebel.

Spoiling the Child—By Elsie F. Kartack.

One often hears a mother say, "Let the children play now because they will have to work hard enough when they grow up." Does she stop to think that a childhood spent in play is inadequate preparation for the work to be done in manhood or womanhood? To be sure, childhood is the time for play and we should not expect a child to do the things that an adult does, but he should be trained to assume small responsibilities, gradually increasing them until he is ready to go out into the world fully prepared to take his share.

Mothers think that they are helping their children by waiting upon them, but they are in truth harming them. I have in mind a young girl whose mother was so devoted to her that she never allowed her to do anything for herself nor to share in the responsibilities of the household. She was scarcely allowed to think for herself. The mother assumed the working out of each of her problems. When she finally left home to go away to school, she was helpless indeed. She was tardy at classes, lessons were improperly prepared, she lost her books and purse, and, in general, was a sad trial to her teachers and others with whom she came in contact. Finally, her training completed, or supposedly completed, she secured a position as teacher in her home town. On the

opening day of school she overslept. Her mother did not awaken her, and she entered upon her duties an hour late, thus making a poor impression for herself at the very beginning of her work. Then, unaccustomed to seeing things to be done unless pointed out to her, she failed to note many matters needing her attention during the first days. The principal did not find her in her room one morning, but after a search he found her in the school yard playing with the seventh grade children. And that was where she belonged; she could assume just about as much responsibility as a seventh-grader.

A child's training with regard to responsibilities should begin in babyhood. As soon as he can walk across the floor and play with a ball, he should be taught to put that ball in its place before he goes to bed. As his playthings become more numerous he should, gradually, learn to take care of each in the same way.

As he grows older he should be taught that each one in the family circle has his work to do. Father earns the money for food; Mother cooks it; Brother and Sister run errands and wash the dishes. And if the mother constructively instructs, corrects and praises, baby, too, will soon look for opportunities to prove himself an active member of the family circle.

THE CHILDREN'S HOUR

SUCCESS.

I sought for fame and fortune
In a genteel proper way,
I tried to teach, I tried to write,
Embroider and crochet.
I tried to paint in china
And I tried to paint in oil,
But not one of those arts esteemed
Would make my kettle boil.

At last in hunger and despair
I made a spicy cake
And pumpkin pies and gingerbread,
Like mother used to make.

I placed them in my window
And lo! the people came
And hailed me as deserving
The laurel wreath of fame.
—Grace Treat Holmes.

HINTS FOR BIRD LOVERS.

Here is how I keep the birds around my home during the winter: I chop some meat and then add a lot of nut meats to it, then I melt some fat and pour over this mixture. I then let it harden and fill hollow bones and hollows in the trees with this mixture. The birds are very fond of it.—P. C.

I found the best feed for birds to be two parts of sunflower seed, four parts fine cracked corn, and two parts crumbs ground in a food-chopper.—M. D.

I make bird houses out of sticks. Here is how I make them: I go to the woods and cut some hardwood sticks about one-half inch in diameter. Any hardwood that will not split easily will do, but it looks better to have the houses made of the same kind of wood. Next I saw the bottom of the house out of a plank, then I build the house, notching the poles and putting one on the other just as you build a log cabin. I use one-and-one-quarter-inch wire nails because they will not split the sticks. When I get the house high enough, I make the door, then I put a pole or two above the door. Next come the gables. This is a rather difficult job, as a piece of board has to be cut out the shape of the gable and the poles nailed on that. The gables

Winter Feeding and Care of Poultry

Good feed and care are necessary in order to procure maximum egg production during the winter months. Stock should be comfortably housed and not overcrowded. Allow about four square feet of floor space per bird, and see that all cracks and openings at the rear and sides of the house are closed to prevent draughts, otherwise colds are likely to develop which not only retard production, but often cause the loss of birds. A little permanganate of potash used in the drinking water (enough to give a deep wine color) will help to prevent the spreading of catarrhal colds, but in more serious cases, birds should be isolated, and treated by washing the eyes, nostrils and throat with a solution of boric acid.

Cotton used in the open front houses should be kept brushed off, and should be opened up on fine days to facilitate ventilation, this will also prevent the accumulation of moisture, which is more injurious to the health of the birds than cold. Plenty of clean litter should be provided for scratching purposes. Lice, which are usually present in certain numbers, should be kept in control. This may be done by dusting the birds with insect powder or by smearing the skin around the vent with blue ointment about the size of a pea. Care should be taken not to smear the feathers with this ointment.

A grain mixture should be fed in the litter morning and evening. Feed at the rate of about one quart per day to ten birds. A mixture consisting of equal parts cracked corn, wheat and oats has given splendid satisfaction at this station. Buckwheat or barley may be used to replace the corn, but in such case, only the best oats available should be used in order to reduce the amount of fibre. A dry mash should be kept in hoppers before the birds at all times. A mash consisting of 100 pounds wheat bran, 100 pounds middlings, 100 pounds corn meal, 75 pounds ground oats, 15 pounds linseed meal, 3 pounds charcoal and 100 pounds beef scraps will give good results. If skim milk, buttermilk or meat is available the beef scrap may be omitted. A portion of the above mash may be moistened with skim milk or water and fed to the birds at noon. Give them what they will eat up clean in a few minutes.

Commercial ready mixed scratch feed and mash may be fed if so desired, but slightly greater gains have been obtained at this station by feeding the home-mixed feed.

Grit, oyster shell and fresh water should be provided at all times. Green feed, such as cabbage, mangels, beets, turnips, clover, sprouted oats and alfalfa should also be provided daily. The latter two may be steamed and fed in the mash, or the leaves may be fed dry in racks or boxes. A dose of Epson salts at the rate of one pound per hundred birds, given at intervals of two or three weeks, will help to keep the birds healthy and prevent intestinal disorders.

Profit from hens depends very largely upon winter egg production. Breeding plays an important part in winter production, but in order that the result from breeding may be obtained good food and care are necessary.

The Ice-House.

The ice-house should have no floor other than a foot or two of stone—boulders at the bottom grading up to small stone or cinders at the top. On top of this should be placed one foot of sawdust. The walls may be single boarded, but are best sheathed inside and out, leaving an airspace the width of the studs. At least a foot of sawdust should be placed between the ice and the walls. The roof should contain a ventilator and two windows to draw off the heat from over the ice. The opening or filling should either be continuous or consist of a series of doors one above the other. By using a wooden slide or gangway incline from the ground to the ice-level, filling is easily accomplished with a horse, a pulley, and a length of rope with a noose at one end to put around the cake of ice.

When Rust Thrives.

Nickel trimmings suffer the greatest when the car has been out in the wet and kept out long enough to dry off. This is the beginning of rust. A few days later the hump, bumper, radiator, etc., are speckled with spots that are difficult to remove. The rough polishing necessary to remove the rust does the nickel no good.

Pulleys that have been improperly grown will be correspondingly slow in starting to lay.

In France they feed spices and herbs with the food for fattening fowls, to impart a delicious flavor.

To keep lard the year round: After the lard is rendered, strain it and pour it while hot into very hot quart or two-quart glass preserving jars. Invert the jars while they cool, having sealed them at once. The jars must be very hot or they will crack. Stand the jars on wood, also, to prevent cracking. I have never been able to keep lard sweet any other way than by canning.—A. G.



To Keep Love Alive.

"And, my dear, he even puts love before food!"
"Still, if you marry him, take my advice and put food before love."