

Soils

Address communications to Agronomist, 75 Adelaide St. West, Toronto

SOME SILO AIDS

To save time and annoyance, and to lessen the risk of the undertaking, one farmer has provided the outside wall of his silo with steps made from iron rod and mounted ladder fashion from the ground to the top.

Directly underneath the dormer through which the blow spout of the filling machine is inserted at filling time, there is a broad step or seat upon which the operator stands when assembling the outfit.

This idea naturally lends itself to any type of silo and is worth bearing in mind.

The writer once saw another kink that should be noted here. The silo of a wide board of sufficient length was attached to the tackle with two ropes, the painter seated himself and drew himself upward with the tackle. This had a lock and he could remain at any desired height. Movement about the silo was accomplished by his feet which were encased in rubber-soled shoes. It will pay the silo owner to keep these tips in mind.

—D. R. H.

BARRELING APPLES ON TREES

If you want to have good apples, begin barreling them while they are still on the trees. No amount of good care in barreling will make up for lack of care in picking, or picking at the wrong time.

Apples are not ready to be picked when they cling so tightly that spurs are broken from the trees. Neither is the color of apples which eventually turn red a reliable index, since the intensity of the color depends on the cloudiness or brightness of the weather. A good indication of maturity is a ground color which, when the fruit is ready for picking, should be turning from clear green to a whitish green or greenish yellow.

Yellow, green, and russet varieties of apples are generally ready to pick when they have reached their proper size and the stems separate readily from the spurs. In picking apples, the stems should be separated from the spurs either by giving the fruit a slight rotating motion combined with a sharp upward twist, or by pressing with the thumb or forefinger at the joint of the stem and spur.

In picking use both sacks and baskets. The baskets are handy for gathering fruit near the ground, while the sacks can be used for ladder work. Some folks think there is more danger of bruising the fruit when sacks are used. In emptying either basket or sack, avoid dropping the fruit. If a

basket is used, it should be lowered to the bottom of the lug box or other receptacle and emptied gently. There is a certain type of sack with a drop bottom, so that the fruit can be emptied without bruising it.

Step-ladders are especially good for work in small trees and for picking from the lower branches of larger trees. The good type are wide and flaring at the bottom, narrow at the top, and supported with but one prop.

In small orchards apples are usually packed right out in the open, but in large orchards and the sections where the weather is bad, fruit is often packed in central houses, tents or sheds. The use of packing houses is increasing. The houses afford shelter for a supply of unpacked fruit which can be handled during bad weather. If there is a packing house there is also a better opportunity to put in sizing machinery and other labor-saving devices.

Two types of grading or sorting tables are used—the apron table and the canvas or burlap table. The bed of the apron table is slatted, so that the trash can fall through, and is inclined so that the fruit as it is graded rolls to the lower end, where it is lowered into the barrel by means of an apron. While work can be done rather rapidly with this table, the fruit often crowds past the sorters faster than they can handle it.

The canvas or burlap table is made by stretching the cloth over a rectangular frame. This type of table is fitted for running the fruit from the apron into the barrel. The apples must be sorted by hand into baskets. The most common practice in barreling is to separate the fruit into two standard sizes. The first size includes apples from two and one-quarter to two and one-half inches, and the second two and one-half inches or larger.

The apple grower must get a grading machine which has a big enough capacity to handle his crop, and one that can be operated most economically. Look for one of simple design, not requiring too much adjustment and not apt to bruise the fruit. The life of a machine, and the various methods of feeding fruit to the machine, should be studied carefully. Upon all these things depend the total daily output and, consequently, the cost of operation. Only small machines can be operated by hand power. Some of the simplest types have a capacity of perhaps 100 barrels a day. In most cases, however, the gasoline engine or electric motor is preferable.

The first step in packing the barrel is to face the first and perhaps the second layer of apples. That is, arrange the layers in circles with stems down. For facing, only apples of the best size and quality should be used, because the trade expects and customarily demands an attractive pack. But remember that the general quality and size should conform to the grade in the rest of the barrel. There are other standard practices in filling barrels, such as "racking," or settling of the fruit by rocking the partially-filled barrel, and "tailing," which means arranging the last layer of apples in concentric rings.

POULTRY.

Ordinary culling practices simply involve looking the birds over at night when they are on the perches and eliminating those which are obviously coming of producing condition. It becomes, however, a much more serious problem to attempt to handle every bird in the flock, make a careful examination and make a final determination as to the fitness of the individual for future breeding.

Here is a simple practice which will eliminate the shock to the birds: Confine the birds to the laying house the night before they are to be culled. This culling must be done in the daytime when the birds can be carefully examined. Secure a large catching crate. A good thing for this purpose is a live-poultry-shipping coop, double deck height, commonly known as a turkey coop. Make a hole in one end of this at half the height of the coop, about eight inches wide and ten or twelve inches high. Provide it with a slide door.

Set this coop so that this opening on the end is directly open to the hen exit opening in the poultry house. Scatter a little grain in the coop. Open the exit door and with a little encouragement the birds will pass out the exit door and enter into the coop.

When a convenient number is thus confined, the exit door can be closed and the hens can be culled and taken out of the coop through the door at the top, one at a time, handled carefully, examined in minute detail and a determination made as to what is to be done with them.

The culs can be cooped up in separate coops, ready to go to market, whereas the good birds can be dropped into the yard or, if their future quarters are ready for them, they can be transported and put in their new houses.

If this operation is carried on in a quiet, gentle way, the handling of the birds at this season will be followed by no loss in production.

Call on the Surveyor.

The payment of two dollars for a half day's work of a civil engineer meant the changing of plans in drainage for my neighbor when he wanted to put in a main tile outlet for his farm. His eye told him that the water should go to the east, which was in the direction of a river outlet, but for some reason he consulted an engineer and found that the water could as well go west and save digging the trench and buying the tile for a good many extra rods. The engineer surveyed the whole ditch and left the depth of cuttings every 100 feet so there was no trouble to get the tile in properly.

In my own case I had a drainage problem and had two outlets that could be used. One was a fifteen-inch tile along the border of the farm and the other an open ditch at the end of the place.

My plan, as my eye told me, was to run a main tile the length of the farm along one side and drain into it with cross ditches. But the surveyor soon showed me that I could cross-ditch right into the fifteen-inch tile and save 100 rods of six or eight-inch outlet. I had plenty of fall. Besides, a large tile is a better outlet than an open ditch.

The saving is hard to estimate but the cost in my case was \$1.50.

A good many drainage jobs are jumped into without much previous thought or planning and surveyors can earn their charges and much more on many farms. The eye is not a sure gauge of levels, and natural slopes of the land do not seem always to tell the story.—Earl Rogers.

The number of eggs consumed per year on farms averaged 28.8 dozen per person. The per capita farm consumption of fowls averaged nearly one fowl per month. The consumption of eggs and poultry was found to be the greatest in seasons of lowest prices.



Miss Annette E. Buck, of Brooklyn, N.Y., is the first woman to ascend to the summit of Mount Robson, the highest peak of the Canadian Rockies. She was accompanied by Mrs. Monday, a Canadian.

How to Hang Your Pictures

BY LUCY B. TAYLOR.

Pictures give a room "thought" and add the touches that suggest interest and life. It is quite possible to decorate a room, have it perfectly "correct," and yet have it stupid and uninteresting. It is the humanness of a room that gets our interest and makes us feel at home.

The little picture over the mantel or on the table, the colored print on the bedroom wall, may go a great deal further than we ever expect in giving to that particular room the air of being really "lived in." Whether in color or black and white, it represents thoughts that greet us pleasantly and arouse similar and stimulating ideas within us.

But it doesn't do to pick out pictures carelessly any more than it does to pick out friends carelessly. If they are not genuinely good in some respect, it is better to have something else that gives a spot of color and life; for a poor picture is like a poor companion—it grows constantly worse to us.

The duplication of ways and means in reproducing pictures has done marvelous things in placing at our disposal the loveliest of reproductions, both in color and black and white. There are now several museums that carry a full line of prints of their paintings. These include landscapes, sea pieces, and subject pictures of leading artists, as well as some of the best of the historical pieces. Every good and really great piece of modern art owned by a museum is pretty sure to have its color or photographic reproduction. And it is pictures such as these, framed and hung carefully in the right places on the wall, that make a room look right and furnished. There are also many good color prints from the magazines that may be cut out, mounted, and framed to give us little satisfaction.

Hanging the pictures is in itself an art. Scattered around in hit or miss fashion, or hung stiffly in rows, they are not especially pleasing. The true secret of successful picture-hanging lies rather in studying your spaces

for size and shape and then adjusting your picture accordingly. For example, there may be a sofa, a chair, and a table against the wall. The natural thing to do is to hang a fairly large picture over the sofa—one that will take the same feeling of length—and then possibly over each of the other two objects a smaller picture. This repeats the feeling of size and shape that has already been established by the sizes and shapes of the furniture, and keeps the essential harmony. That's the whole story. Follow the lines and spaces of your furniture groups as well as you can, and if they are well spaced the pictures will be too.

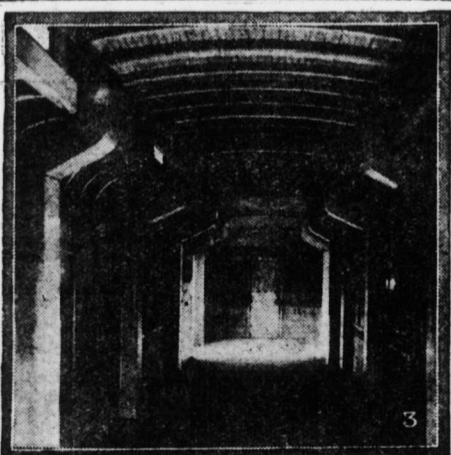
Sometimes an odd problem comes in. There is a table in the corner, a chair at the window, and perhaps a bed along the wall. Then group one, two, or three of the smaller pictures in a longish-looking group over the bed and balance the wall with one well chosen with regard to size over the table. Then your walls will be pleasing.

The possibilities are innumerable. Choose good pictures, study your wall spaces, and try to maintain a feeling of balance. One could write volumes and say no more!

Ask the Agricultural Representative.

In most every section wheat varieties show an adaptation to a soil fertility range. The kinds that do best on poor land fail to make so good a showing on rich land. This is another matter about which agricultural representative advice would be desirable. As a rule the earlier wheats make their best showing on the poor lands. The richer lands with a greater moisture-holding capacity can more safely carry the later-growing varieties.

We need more men who do not fear to break new ground, to blaze new trails, to lead the people on to a larger and more satisfactory progress.—Arthur Capper.



FRUIT NOW SHIPPED IN NEW TYPE OF CAR

The development of the Niagara Peninsula as a source of fruit for the markets of the Dominion is becoming more pronounced, through the co-operation of the fruit growers, the dealers and the Express Department of the Canadian National Railways.

For this traffic, the Canadian National Express has designed an entirely new type of fruit car which has already given satisfaction. No ice is used in these cars, a natural air-cooling method being used. While this does not develop as low a temperature as ice refrigeration, the process is more natural, and as a result, the fruit does not deteriorate as quickly when removed to the warmer outside atmosphere.

There are thirty of these cars in operation between the Niagara Peninsula and points in Ontario, Quebec, the Maritime Provinces and the North West, and they received several tests under the most unfavorable conditions possible, before they were finally adopted for service.

Home Education

"The Child's First School is the Family"—Frederick

Co-operate With Nature — By Ora A. Clement.

"Goodness, taking care of children means spending all your time making somebody do something he doesn't want to do," exclaimed young Mrs. Lane as she took Daddy's letter-opener from the baby and motioned Billy and Sister to continue their task of picking up blocks and toys.

"Oh, I hope it is not as bad as that," her mother laughed comfortably. "In fact, I do not remember it in that way at all."

"But how did you manage, Mother, when there were six of us to get into mischief and tease and hurt one another? It must have been Bedlam all the time."

"I suppose it was noisy, and I don't doubt that I was sometimes worried—and cross. But I have forgotten that part of it. That is one of the nice things about growing old—you forget so much that is unpleasant."

"But about the children—I learned one thing while I was taking care of mine that helped me a lot, and it was that Mother Nature keeps a firm hand on all her babies and is quite determined they shall grow up to be normal, healthy human beings. So that working against Nature is very much like swimming up-stream, while co-operating with her makes the care of children comparatively easy."

"I don't know what you mean," the daughter confessed.

"Well," explained her mother, "after watching six of my own and many of my friends' and neighbors' children go through their childhood, I have decided that all children pass through certain stages of development, and during each stage it is especially easy to teach them certain things."

"Of course, at first, the baby's attention is chiefly occupied with learning to manage his hands and feet. We do not usually interfere with this process, though sometimes people urge a baby to walk too soon, and sometimes sickness prevents him from walking when he should."

"Usually the four-year-old has learned to use his hands and feet, and his chief delight is in their use. Movement of the arms and legs is what he wants, and he imitates the motions his mother makes as she works about the house. During this period chil-

dren can be taught habits of order and cleanliness which will stay with them all their lives. Though too small to do actual work, they are pleased to do little, step-saving tasks for mother, if the task is a matter of imitation. This imitative age is a period of golden opportunity."

"Right on top of this lovable age comes the individualistic age, when, almost overnight, the child becomes distressingly selfish. He wants the best of everything for himself and will fight to get it. He wants the attention and adulation of adults and will try to gain them by 'show-off' antics. He bullies the younger children and teases the older. He becomes a family nuisance, and his discouraged mother wonders what she has neglected to do for Johnny that he should get so far beyond control. It is not her fault, though. Johnny's Mother Nature is preparing him for the battles of life; she is teaching him to think and to act for himself."

"That the process is painful to his parents and friends does not influence the old Dame for one instant. She knows what she is doing. Soon his selfishness will be controlled by conscious self-denial, and Johnny will begin to show real character. His boastful contrariness, which challenges every spoken statement, will soon be tempered by reason."

"There are many things you can teach him at this age. He appreciates praise for his individual effort and will spend tremendous energy to gain it. He can be taught to take responsibility. The irresponsible and untruthful young people, who are altogether too numerous to-day, were not handled rightly at this age. The child asks innumerable questions, and your greatest possible mistake is to ignore, ridicule or evade these questions. Give truthful, serious answers, drawing him out when you suspect that some troubled thought lies at the bottom of the questions, and in later years you will not have to suffer that worst of all hurts, the knowledge that your child's confidence is being purposely withheld."

"Besides these there are other—but, mercy, child, see what time it is! If I sit here lecturing, James will find no dinner when he comes home."

Stringent Measures to Prevent Spread of Corn Pest.

On account of the danger of further distributing the European corn borer, a pest which is seriously menacing the corn-growing industry in Ontario, stringent regulations regarding the transport of corn from infested to uninfested areas are being enforced by the Dominion Minister of Agriculture.

Last year, during the sweet corn season, the Department inspectors discovered corn on the cob, infested with the caterpillars of the pest, being carried from the infested areas by motor cars. The regulations make it illegal for tourists and campers to carry corn from the quarantined areas, because of the danger of the spread of the pest in this way.

The regulations provide that corn may not be moved or shipped by growers, produce dealers, or others, from the following areas under quarantine: "Brant County; Bruce County; Dufferin County; the townships of Clarke, Darlington and Hope in Durham County; Essex County (including Peel Island); Grey County; Haldimand County; Halton County; Huron County; Kent County; Lambton County; Lincoln County; Middlesex County; Norfolk County; the townships of Pickering, Whitby East and Whitby West in Ontario County; Oxford County; Peel County; Perth County; Waterloo County; Welland County; Wellington County; Wentworth County; the townships of Etobicoke, Markham, Scarborough, Vaughan, and York in York County, and the township of Brighton in Northumberland County."

From the counties of Elgin and Middlesex, which are the most heavily infested districts in the province, corn may not be carried even to other counties in the infested district.

Except from Elgin and Middlesex counties, corn on the cob may be shipped from the quarantined area to the Toronto and Hamilton markets, but may not be shipped north or eastwards. Violations of the regulation are punishable by a fine.

Exports of Live Stock and Meats.

Our exports of domestic live stock and meats, according to Dominion Live Stock Branch reports, to Great Britain during the first seven months of the year compared with the same period in 1923 were: 40,026 cattle compared with 34,152; 2,357,200 lbs. of beef compared with 5,108,600 lbs.; 62,411,600 lbs. of bacon compared with 57,408,300 lbs.; and 3,201,300 lbs. of pork compared with 1,738,700 lbs.

To the United States during the same periods were sent: 45,082 cattle compared with 34,152; 20,708 calves compared with 13,745; 390 sheep compared with 3,817; 7,411,200 lbs. of beef compared with 3,923,700 lbs.; 258,300 lbs. of bacon compared with 91,900 lbs.; 818,900 lbs. of pork compared with 412,900 lbs.; and 25,600 lbs. of mutton compared with 60,600 lbs.

FARMING MUST BE BOTH

For many years we have been advised, urged and persuaded to look upon farming as a business. Twenty years ago it was the big idea emanating from the then popular farmers' institute platform. But farming as a business has had little to recommend it in very recent years and so makes a rather difficult subject matter.

There are always a few brave, loyal, optimistic souls, however, who are bound to find good in the worst of things, and within the last year or so they have been telling us that farming is, after all, not so much a "business" as a "mode of life."

Regardless of the fact that we farmers and others have for years been lamenting because we could not keep the boys and girls on the farm, it has, as a business, attracted enough people to cause over-production often and along many lines. And as a manner or mode of life it should attract, not only all who like country life, but all those who would be better off out of the cities and towns, whether they like it or not.

The farmer is both capitalist and laborer. The manner or mode of life which seems so ideal in the country, could hardly remain so for long if that capital and labor were not both gainfully employed. The charm of country life is sure to quickly fade away when the farm, from a business standpoint, fails to pay, and laudable as may be the optimistic view that strives to make the farm attractive even when financial profits fail, the fact remains that, in order to be satisfactory the farm must have a passing standing both as a business and as a mode of life.

Commercial Fertilizers for Potatoes.

It has been found profitable to use commercial fertilizer in the growing of potatoes at the Nappan, Nova Scotia, Experimental Station, according to the report of the Superintendent for 1923. The potatoes, grown in a three-year rotation, followed clover after oats. A complete fertilizer mixture was used, applied at different rates. The results are given with some reserve because only two years' work has been done. It is concluded, however, that the use of commercial fertilizer is profitable in the growing of potatoes. The average yield from all the plots receiving fertilizer was 247.6 bushels per acre, while the plots that received no fertilizer gave an average yield of 107.5 bushels, an increase of 140.1 bushels in favor of fertilization. Valuing the marketable potatoes at 55 cents a bushel and the smaller ones at 20 cents a bushel, a profit of \$39.95 per acre over the cost of the fertilizer was shown. Fertilizers of different consistency were used. The mixtures were 3 parts nitrogen, 8 parts phosphoric acid, and 6 parts potash; 4 parts nitrogen, 8 parts phosphoric acid and 10 parts potash; 4 parts nitrogen, 8 parts phosphoric acid and 8 parts potash.

From the two years' work there was little, if any, difference in the results from the use of these three mixtures. The most economical quantity to apply was found to be from 1,000 to 1,200 pounds per acre. While heavier applications gave higher returns, the increased yield was made at too great a cost. The average increased yield from the 1,000 pound application, was 24.5 bushels per acre, with a value of \$11.52. To obtain this, however, required \$9.00 for the extra fertilizer, leaving only \$2.52 per acre in favor of the 1,000 pound application. This increase is not considered sufficient to meet the extra expense of interest, freight, truckage, and handling charges. It is therefore concluded that for conditions at Nappan in the three-year rotation mentioned, fall dipping with the official Canadian Government mixture of lime and sulphur is an excellent practice, as it kills off the lice that are present on the potato. A second dipping two weeks later is always necessary to insure the best results.

Treatment for Cattle Lice.

Lice on cattle develop most rapidly in dry, cold weather, and cattle should be dipped or treated before the cold weather sets in, says Mr. S. Hadwen of the Dominion Dept. of Agriculture, Ottawa, in his bulletin, "Insects Affecting Live Stock." For range cattle, fall dipping with the official Canadian Government mixture of lime and sulphur is an excellent practice, as it kills off the lice that are present on the cattle. A second dipping two weeks later is always necessary to insure the best results.

For stabled animals kerosene emulsion prepared as follows has been found very satisfactory: one quart soft soap, quarter pound hard soap, one pine kerosene and two quarts water. Mix with boiling water and add one gallon of warm water before using; mix thoroughly so that the skin won't be scalded; re-treat in ten days or two weeks. The mixture can be applied with a brush.

In cold weather when it is not safe to either wet the skin or clip the hair off, pyrethrum powder is a useful remedy. Dust over the skin and strap a blanket on. Disinfect everything that has been in contact with the animal.

Improved stock raising is no longer "a rich man's hobby," but a practical farmer's necessity.

THE CHILDREN'S HOUR

AT THE CROSSROADS.

"Bee, five, bee four, I wish I had some more," sang Willie Woodchuck as he finished the last sugar cookie that Old Mother Coon had given him.

"Me, too," said Johnnie Muskrat. "I'm still a little hungry, but I'm tickled that we are on our way home. I don't think I want to go sailing on a log again."

"Mrs. Coon said we would be home by afternoon," said Jackie Rabbit, "but we must walk faster."

"I can't walk much faster," puffed Willie Woodchuck as he waddled along the road that Mrs. Coon said would take them back to Woodland and home. Soon they came near the crossroads where she had said a sign post would tell them which road to take to Woodland. As they came to this post they were very puzzled. No, it was not because these three little Woodland boys could not read, for they were the best pupils in the Woodland school, mischief excepted. But a big puff of wind had blown that way, or someone had hurried around the corner too fast. The sign post which was to tell them the way home was topsy-turvy.

On one board was printed "Stoneyville" and on the other "Woodland," but they both pointed "hitch-a-cue" angles toward the blue sky.

"Well, well, well, this is a real mix-up," said Jackie Rabbit scratching his head. "We can't follow the sign post to Woodland, because it points up to that big fleecy cloud. What had we best do?"

"I think this road goes to Woodland," said Johnnie Muskrat, pointing to the right.

"I'm sure it is this one," said Jackie Rabbit, pointing to the one to the left.

Willie Woodchuck said nothing, for he was getting too tired to bother to think.

"That's more of a puzzle still," said Jackie Rabbit. "Perhaps we had better draw cuts. We will go with the one who gets the longest cuts."

"Fine," agreed Johnnie and Willie. When Willie had carefully prepared the draws, Johnnie Muskrat pulled the longest one, so off they started down the road to the right, hoping to reach Woodland before the sun went down.

From Weeds to Honey.

Sweet clover through its dense smothering effect the second year of its growth sickens and discourages weeds. Such rampant fellows as thistle and bindweed become greatly weakened.

And while the land is becoming enriched and weeds smothered, an enormous honey crop of highest quality is produced. Moreover, having bees on hand to harvest the honey crop helps greatly the yield of seed. Bees carry the pollen from flower to flower.