

Soils and Crops

By Agronomist.
This Department is for the use of our farm readers who want the advice of an expert on any question regarding soil, seed, crops, etc. If your question is of sufficient general interest, it will be answered through this column. If stamped and addressed envelope is enclosed with your letter, a complete answer will be mailed to you. Address Agronomist, care of Wilson Publishing Co., Ltd., 75 Adelaide St. W., Toronto.

Harvesting and Storing Certain Vegetables.

While vegetables have been harvested continuously in many gardens in Canada since radishes and spinach were ready for use in early spring, the time has come when the bulk of the crop must be gathered to escape frost.

As beans discolor and mould very readily, it is important to dry them as soon as possible, and to keep them dry. They should be spread out thinly under cover, and turned every two or three days until quite dry. If it is necessary to harvest the plants before they are thoroughly ripe they can be hung up outside until dry.

There will be many tomatoes which will not ripen before the plants are killed by the frost. If the fully-grown green specimens are picked before being frozen, and each specimen wrapped in paper and stored in closed boxes, they will be found, from tests made at the Experimental Farm, to ripen better than by exposing them to the sun. Even if put into closed boxes without wrapping each specimen, they ripen well.

Frequently cauliflowers are just beginning to head when it becomes necessary to harvest them owing to severe frosts. If the plants are pulled and replanted in boxes in the cellar, and kept watered, they will go on developing, and one can have cauliflowers for some weeks. Brussels sprouts can also be replanted in this way. Both of these vegetables may, however, be left in the ground for some time yet.

If cabbage begin to split and it is not yet time to harvest them, the splitting will be prevented to some extent by twisting the plants so as to loosen them. This checks the flow of sap into the head. If the cellar is warm and dry, and the cabbage have to be harvested owing to the frost, they will keep well for a time outside if covered with leaves.

Where the accommodation is poor, celery may be kept outside in the soil well into the winter by opening a trench, preferably a narrow one fifteen or sixteen inches wide, and deep enough so that the tops of the celery will come about level with the surface of the ground. The celery plants are put close together in it, and before there are severe frosts, a thin layer of straw or leaves is put over the top. When the cold weather comes a heavier covering of leaves may be put over, if it is desirable to leave the celery longer, and then twelve to fifteen inches of soil over that. By putting sufficient leaves or

straw over the soil again, frost may be kept out, and the celery dug out as required.

In harvesting potatoes, any which show signs of decay should be kept separate from the rest, and used first, thus helping to avoid the development of rot when stored. Potatoes should be dry when they are stored.

Keep onions dry, spread thinly. Squashes, pumpkins and citrons should be kept in a moderately warm, not a cool, place.

After-Harvest Cultivation.

Adequate cultivation is just as essential for the production of maximum crops as is the application of manures. In fact, many farmers assert that plenty of intelligent tillage is almost equal to a coat of manure. Such statements do not detract from the value of manures or other fertilizers, but they serve, in some measure, to bring into relief, the need for maintaining the soil in the best possible tilth. The proper time to commence tillage is immediately after the crop has been removed.

If the soil is in a feebly tilled, shallow cultivation, either with a gang-plough or a disc-harrow immediately after harvest, will cause the germination of the weed seeds. Subsequent cultivation will kill these young plants and, if the ploughing has been done early enough, it may be possible to effect the germination of a second growth of weed seeds before the final "riding-up" ploughing is done late in the fall. This is one of the most effective means of combating such weeds as wild oats and mustard.

Where the land is comparatively free from weeds some advocates of after-harvest cultivation favor deeper ploughing, for the purpose of retaining more moisture from the autumn rains. This is a matter of experience and the individual farmer should experiment and decide for himself which method is most suitable to the needs of his soil.

The final ploughing in the autumn should leave the land ridged, so that frost action will pulverize it thoroughly. In this way a fine surface mulch is formed during the winter, which dries out quickly in the spring; at the same time it forms an excellent seed bed and protection for sub-surface moisture.

Scarcity of labor may make this process difficult, if not impossible, on many farms. But, where such handicaps do not exist, every effort should be made to practice after-harvest cultivation. It is a factor of prime importance in increasing production next year.

Sheep Notes

The best time to select breeding ewes for next year's crop of lambs is just about the time they are taken from their lambs this year. The ewe, like the dairy cow, should be judged largely upon her performance. The ewes that bring large, thrifty lambs and provide them with plenty of nourishment are the kind that pay for their keep and return a profit.

For the man who already has his land picked out, and is the possessor of suitable buildings for the purpose of wintering, early fall is the time for starting in sheep raising, and if the beginner has sufficient confidence in his own ability as a judge of sheep, he has no better opportunity to select his foundation stock than is provided at the Fall Fairs. Many of the showmen at the big exhibitions will be found to have, in addition to their first prize-winners, plenty of desirable animals in their show string, especially in the case of young rams. Ewes also can be procured more readily at this season than at any other, and the purchaser will have the opportunity of providing his newly acquired flock with feed at small cost for some weeks to come on grassland that is intended for fall plowing, and on the stubble fields.

It is perhaps wiser for the new beginner with sheep to start with good grade ewes, than to endeavor to get into the pure-bred line immediately. Experience with the less valuable animals will fit him to produce fancy flock headers and exhibition stock later, and in the meanwhile his profits from disposal of wool and mutton will be satisfactory provided he proves a good shepherd. The disposing of any considerable number of top notch pure-breds, on the other hand, is somewhat of a business, in which a man requires, first a reputation for his stock and second a wide connection in the breeding fraternity. The use of only the best in the way of rams is necessary however, in any case, and it goes without saying that the ram must be a pure-bred.

When lambs are weaned keep them on the old pastures for a few days and remove the ewes to pastures as far away as possible. When accustomed to being by themselves, the lambs should be put on good fresh feed.

Red, White and Blue Pullets.

Red for the six-month-old layers, white for those first laying at seven months, and blue for those laying at eight months are the leg-band colors used by some poultrymen to keep informed of the egg production by the new crop of pullets. Those facts, as well as others which are valuable in culling for the second year and in making up breeding pens, are obtained by noting when the banded pullets molt and begin to lay. Usually, but not invariably the red-banded birds molt last. Blue-banded pullets are always sent to market as yearlings; red-banded ones seldom are. The age at which a pullet starts laying and the date when she begins to molt determine whether it will be profitable to keep her another year. Birds without bands are to be culled.

The first bands in the case of heavy breeders are often put on at six and one-half or seven months. The above ages are for Leghorns.

The test is sometimes the trapnet, a band of one color being placed on pullets when coming into laying. Sometimes physical examination is used instead of trapnetting. In the latter case there are reliable signs to follow. The color of the vent and the condition of the "laying" bones change quickly when a pullet begins to lay. The yellow color leaves the vent. The laying bones become pliable and the flesh between them and the end of the breast-bone grows loose and flabby. With experience the poultry keeper acquires skill in reading these signs. A little later the combs of laying pullets will be red, plump and smooth and, in the case of Leghorns, the ear-lobes will be white. When pullets are examined, birds found malformed or very much undersized are culled, as well as those whose conformation indicates they will make poor layers.

In the long run it is short-sighted economy to kill productive cows. It is not only patriotic to keep every good milk cow, but it's the only way to maintain an industry which is essential during the war and after. For after the war European countries will knock at our door for animals for foundation herds. Be ready to open the door.

WANTED
POULTRY,
EGGS AND
FEATHERS
Highest Prices Paid
Prompt Returns—No Commission
P. POULIN & CO.
29 Bonsecours Market - Montreal

The Dairy

What the Cow Would Say.

We need a period of rest after we have worked for you all the year, so that we may properly nourish our calves and build up our energies for another season's work.

Our food should be well balanced, but we hope that the time may come when you dairymen will not value a pound of protein from one source with a pound from another. Some of the protein feeds you give us are simply awful for us to eat and digest.

We sometimes feel as though we were all out of whack. We can only lay this feeling to the way in which our owners have interfered with nature's laws.

You have bred us so that it is our very nature to put our fat into the pail, and when we get short rations we put the flesh of our own bodies into your milk. The drain on our systems is awful.

It seems as though you thought of nothing except buying more protein, making more milk, and forcing us to our very limit. Do you wonder we get tuberculosis, garget, and that we play out under such care and treatment?

When you confine us to such narrow rations as many of you dairy farmers do, we cannot use our instinctive preferences in the choice of our foods and when you choose our food for us, you should do it wisely.

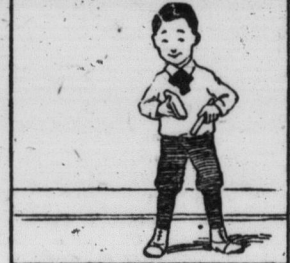
We need some succulent food to keep our bowels in condition and assist us in the digestion and assimilation of the heavy grain foods we are compelled to eat. If you would feed us a little more of the good things that you grow here on the farm, and not so much of those bountiful feeds, we should make better milk, and we should have better calves to take our places when we are sent to the shambles.

Machine Corn-Cutting.

One man with a corn knife by working hard can cut and shock an average of one and one-half acres a day. Two men with a platform harvester can harvest four or five acres in the same time; and three men with a corn-binder in a ten-hour day can cut and shock seven or eight acres. This year when farm help is so scarce there is urgent need for use of labor-saving machinery wherever possible. Cutting corn by hand is a hard, disagreeable task, and the time when it should be done

FUNNY FOLD-UPS

CUT OUT AND FOLD ON DOTTED LINES



BUT IF MY NOSE DECEIVES ME NOT MY MOTHER'S MAKING JAM



Full plowing, seeding for winter wheat and digging potatoes must be done on many farms at about the same time. In such cases, the timeliness and ease of accomplishing the work are determining factors in deciding the advisability of using corn-cutting machinery.

The corn-binder does the best work when all the corn is standing upright. Usually most satisfactory results are obtained with a three-horse team, and sometimes four horses are necessary when the corn is heavy or the ground hilly. In ordinary yields, one man operating the binder will keep two men busy gathering the bundles and shocking them. These three men, cutting and shocking by hand would scarcely cover more than four acres in a day and it would be necessary to work much harder than when the corn-binder is used, thus the machine requiring less laborious work takes from one-half to two-thirds as long to cut a given acreage.

The boarder, the leaner, the slacker. And other guest cows of that ilk. Should be hurried away to the butcher. They take all the profit from milk. Have you won a ribbon at the county fair?

GOOD HEALTH QUESTION BOX

By Andrew F. Currier, M.D.

Dr. Currier will answer all signed letters pertaining to health. If your question is of general interest it will be answered through these columns; if not, it will be answered personally. Dr. Currier will not prescribe for individual cases or make diagnosis. Address Dr. Andrew F. Currier, care of Wilson Publishing Co., 75 Adelaide St. West, Toronto.

Suggestions Relating to Skin Diseases.
The prevalence of skin diseases among Canadian people is astounding. Some are simple, local, and easily remedied, many are the outward manifestations of internal disease and others are stubborn local diseases lasting months and years.

In all skin diseases it is safe to assume as a fundamental principle that the bowels must always be kept freely open for the skin is complementary to the intestines in eliminating poisons from the body.

Hence cathartic mineral waters, salts of various kinds and laxative oils are important in treating skin diseases.

Skin diseases are especially prevalent during youth and they often attack the face and neck, the most conspicuous parts of the body and about the beauty or ugliness of which young people are always most sensitive.

You cannot blame young persons for mortification or shame when the mirror reveals blotches and blackheads and sores and swellings which disfigure their countenance and wound their pride, and I always try to lend a sympathetic ear to their tales of woe when they are based upon such disfigurement and annoyance.

The griefs and discomforts of others must always be measured if possible from their standpoint. The patient medicine venders find easy victims in those who suffer from acne, for they grasp at every straw which gives any prospect of relief.

But if there is a patent medicine which will cure acne, I have never seen it.

There are some which may help it, especially when joined with cathartics, massage, and other means for improving the circulation in the skin.

Possibly the new-fashioned method of treating acne with injections of serum may solve the difficulty.

Freckles are another source of annoyance to young people, these being deposits of pigment below the surface of the skin and destroyed only by acids and strong mineral substances. Any of these substances which

penetrates beyond the surface must necessarily leave a scar, hence there is danger of disfigurement from lotions advertised to remove freckles, moles, and liver spots, if they are powerful enough to do this.

The removal of parasites and vermin from the skin requires not only judgment in selecting medicines but skill in using it.

There are good sulphur soaps and ointments for the itch parasite and if they fail a sulphur bath will finish the job.

Mercurial ointments are necessary for the parasites which get at the roots of hair but they must be used cautiously for mercurial poisoning from such a source is not unusual, especially among children.

Caustic and corrosive ointments and salves are often advertised to treat cancer of the skin.

They are painful and destructive and should be used only by those who are familiar with their action and with the diseases for which they are appropriate.

Disease of the skin is often induced by substances used upon it. This is especially true of cosmetics which clog the tubes of the sweat and sebaceous glands of the skin with materials which will not dissolve, which interfere with the circulation of the blood and the discharge of sweat and sebaceous matter and will make the skin dry and hard even if they do not produce eruptive disease.

Theatrical people and others whose taste or preference induces the use of rouges and cosmetics often find the results of such maltreatment of the skin sufficiently disastrous.

Ointments are usually preferable to liquids or lotions for application to the skin as they are more readily applied and more readily retained, and their bases are lard, vaseline, lanolin, cocoa butter, etc.

The lard in ointments often becomes rancid and irritating to the skin.

Ointments for itching eruptions contain tar, zinc, salicylic, etc., and one great advantage of these and other external applications is that they are upon the surface, whereas their action can be watched from day to day.

FIELD SELECTION OF SEED EARS

Methods of Gathering, Curing and Storing Seed Corn Calculated to Develop Strains of High-Yielding Corn in Ontario.

Right now is the time to make plans for gathering and storing sufficient good ears for next spring's supply of seed. The very basis of success with next year's corn crop lies in the care and common sense with which the seed corn saved to produce this crop is gathered and cured this fall. To be sure, the importance of testing seed corn in the spring cannot be overestimated, but at best spring testing simply serves as a check or safeguard in determining the efficiency of the previous handling and curing which the corn has had.

The first step toward securing better seed ears for planting is that of selecting varieties that will mature during the normal growing season. To intensify early maturing tendencies, and enable one to examine the character of the growing stock as well as the ear that is attached to it, it is preferable to select seed ears from the field about the middle of September. This gives seed corn that will make good silage and mature sound grain during a normal growing season. Only careful seed selection will enable Ontario farmers to gradually intensify the early maturing tendencies of their corn until it is possible to mature a maximum quantity of seed corn.

In selecting seed from the field one should not persist in selecting ears simply because they are big. The profitable limit to the size of the ears is as large as will mature on one's farm. In selecting ears that have reached a fair maturity before it is time to harvest the main crop they may have a deep grain, but never as large a cob as the seemingly large ears that mature later, or as those that are not mature after heavy frosts. The lightness, or circumference of the cob, should correspond with the length of the growing season. This point is important because it enables the grower to keep the size of the ear adapted to his soil and climate. After one has selected his variety and finds that it suits his soil, latitude and requirements, then he should aim to grow as big ears and no larger than will make a maximum crop of sound corn.

Only the inexperienced or the unserving grower persists in selecting ears simply because they are big. Yet the charm of bigness is over many breeders of corn as well as farm animals. The fact that this idea of bigness of ear associates with the idea of bigness of crop is so universal that corn growers must devote special attention to studying the problem before they can succeed in developing strains of high-yielding corn adapted to their soil and climatic conditions. With the big paying crop ever before our minds, we may easily sacrifice bigness of ears for soundness, quality and maturity.

The successful corn grower who takes particular pride in developing a uniform strain of seed corn adapted to his farm finds it pays to strap a bag or basket over his shoulder and go through the field before the corn is cut and walk up and down the rows selecting the best seed ears from the standing stalks. In case he has no special seed plots, he may find it possible to make fairly good selections from the best portions of the field crops. At any rate he must have in mind the type and qualities of a good ear and stalk. He must appreciate

the value of stout, vigorous, leafy stalks, that produce ears at a convenient height for harvesting and husking and with shanks just long enough to allow the ear to droop nicely. As a rule stalks of this type will bear good ears.

It is always better to have a surplus of seed stored away in the fall and to make final selections of seed ears before planting in the spring. It is also important that fairly mature ears be selected, as the immature ones are apt to cause mold, and at best are very difficult to cure. Such immature seed, even though it may possess high germinating qualities, has a tendency to produce weak-growing plants, unless weather and soil conditions are especially favorable. This serves to emphasize the importance of growing a variety of corn that will mature well and which, by careful seed selection, may prove adaptable to climatic conditions.

No amount of attention to scientific field selection will solve the problem of seed corn selection unless adequate plans are made to get the seed ears into storage promptly.

The method which will bring about the quickest drying of the ears is the most efficient. In general, any practical method of storage that will keep the ears separate so as to prevent actual contact of one ear with another and allow free circulation of the air round each ear will give the best results. One of the best and cheapest methods is that of having woven wire cut up into strands. The ears are easily attached to these strands and dry rapidly. Another good scheme is that of driving finishing nails into a cedar post far enough apart to hold each ear separately. Several manufacturers have put on the market devices for keeping the ears separate.

No place on the average farm is better adapted to curing seed corn for moderate plantings than the ordinary, well-ventilated garret with windows that may be opened to permit breezes to blow through freely. In such a place the ears will not be injured by frosts during the fall and at the same time be protected from the rain and storm. The room above the kitchen, where the stovepipe passes through, will furnish ideal conditions for curing the seed ears.

Nothing will give one a better idea of the value of providing ample curing facilities for corn than the tests for germination in the spring. Let the farmer who believes that proper curing of his seed ears during the fall does not pay, test out ears properly cured and those stored in the tool house or barn and the results will prove to his satisfaction that proper curing pays. But such a test does not fully determine the value of proper curing. Many kernels of corn that germinate readily do not produce a vigorous plant. It is only well cured seeds that produce strong vigorous plants. Life processes go on in the seed kernels at a very slow rate. Exposure of the seed ears to damp, freezing and thawing weather and the germinating powers are either destroyed or weakened to such an extent that it is difficult to secure a full stand. Proper curing and storing of the seed ears locks up the energy and vitality in the kernels and keeps it there until it is set free by the soil to produce a healthy, vigorous-growing plant.

Spreading Farm Manures.

It takes as long to load a manure spreader as it does a wagon box, but the spreader will unload and spread the manure in a third of the time. Hauling manure in a wagon box and spreading it on the field with a hand-fork is hard and disagreeable work. It can be done much easier with a spreader and the material is more evenly distributed. The spreader is a useful implement to have at any time when manure is to be spread, but particularly so now when labor is scarce and the need for increased crops demands that not a pound of fertility be wasted. Save time and avoid waste—buy a spreader. If the amount of hauling is not sufficient to justify the investment, it may be worth while to rent or borrow your neighbor's.

Leaves as Fertilizer.

Dead leaves, contrary to common belief, have practically no fertilizing value. Most of the elements of plants food pass into the body of the tree on the approach of winter. A ton of the best quality of autumn leaves contains six pounds of potash, less than three pounds of phosphoric acid, and 10 or 15 pounds of nitrogen.

Leaves are of practical value when in the proper state of decomposition. Leaf mold is used in all well-equipped florist establishments for mixing with sand and garden loam to make a good potting soil. Soil made in this manner is especially valuable for ferns, palms, and other woodland and tropical plants.

Composting leaves, manure, and rubbish is not uncommon. A low place is selected for the compost, which is allowed to stand for two years. It will be found advantageous to wet the pile during the dry season. The leaves keep the soil loose and prevent its packing together into a hard mass.

Ships' men should be darning with threads from the raveling.

THE JUDGE'S LITTLE GIRL

One October dusk when Judge Moulton entered his nephew's library he found the feminine members of the family in deep discussion.

"Lucy again?" he asked. "Yes, Lucy; but it's the worst yet," said Mrs. Grant. "O Uncle Prescott, if you could do something! The Carringtons are planning a three-day motor trip into the mountains—six young people and Mr. and Mrs. Carrington. Bob Carrington invited Lucy, and she asked him why he didn't invite Celia Fenton instead, because she was so much more entertaining. So he took her at her word. And now Lucy is crying her eyes out, for she really wanted to go, and she can't see that it's all her own fault. Really, I don't know what I'm going to do with her."

"People will be calling her 'queer' pretty soon, if they aren't already," said Christine. "And when a girl gets that title, her case is hopeless."

"You can manage her better than anyone else. If you could make her see how foolish her shyness is—" said Mrs. Grant, leaving the sentence unfinished, an open door to her hope. "I'll go up," Judge Moulton answered.

He climbed the stairs slowly—not because he was growing older but because he was thinking how hard life often is for young persons before they have lived long enough to gain a sense of proportion. Lucy always had been his special comrade.

At the door he tapped three times—their old signal. He had to wait before Lucy opened it, and when she did she kept her face turned from the light. But the judge's voice was quite casual.

"Hello, little girl! Suppose anyone's using the nursery?" "Lucy led the way without a word. The nursery, long disused but dear because of old memories, was always a comforting place of retreat. As she pushed the door open, she turned with a sudden cry.

"Why can't people stay little? It was so much easier then. I hate things now. I hate being different and left out."

He drew her down beside him on the arm of the big chair.

"Lucy," he asked, "what would you think of a storekeeper who when a customer came in declared that he had nothing worth buying? Or a teacher who began every lesson by saying she didn't know enough to teach? Or a doctor who declared that he wasn't competent to practice? Do you think it would be very long before the world took them at their own valuation?"

"Why, I suppose not," Lucy answered slowly.

"Well, then, your business just now is to be a sweet, happy, friendly girl. People—your old uncle included—have an idea that you are. But if you keep insisting that you aren't—don't you see that you aren't playing fair, that you are shirking the business God set you to do, by running yourself down?"

"Shirking!" Lucy cried.

In the dusk her uncle smiled. Whatever else she was, Lucy was no shirk.

The Sentry.

It's cold out here in the rain and sleet, And I'd rather be home right under a sheet.

My boots are wet and my feet are, too. My socks are wet and my face at times, Then cold it turns as I write these lines.

My back it aches from standing straight, I feel as if I carried a cargo of freight. The gloves I wear are cold and stiff; I'd rather be home beside the "wif." Then I think of the men I'm watching o'er.

The men who came out to end this war. And I'm glad that I'm honored to guard these men.

The cream of the manhood of lands, ye ken; So I buckle up and pace the ground, With not much fuss, and little sound, That the men will rest and sleep While a careful guard I keep.

F. J. C., 1918.

Air-Cure for Airmen.

On a Cingalese fishing-boat, in the blazing sunshine, two or three pearl-divers, in various stages of paralysis, will lie about the deck. A gong sounds! the paralyzed divers flop and founder in ghastly fashion, like great fish, to the side; then they topple over. To drown? No; for, like the great fish, again, once in the water they are quite themselves. The sea-depths gave them their paralysis. The sea-depths take it away.

Divers' paralysis is due to the too-sudden changes of atmospheric pressure which diverse undergo. "Like cures like," say the homeopaths, and if a diver has contracted paralysis by rising too suddenly from a depth of seventy feet, he can cure himself by going down to seventy feet again.

And now to-day our airmen, descending in nose-dives and vrilles from heights of 20,000 feet or 25,000 feet, are attacked in their turn by a disease similar to that of the pearl-diver. The cure is similar.

Ships "wear" flags; they do not "fly" them.