

Soils and Crops

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

Cutting Timber on Farm Woodlots.

Many farm woodlots could be put in better shape by judicious thinning or by planting up the openings with valuable species of trees or by both. In many woodlots the growth of timber is at a standstill, growth of the younger trees being offset by decay of the older ones. In many woodlots faster growing and more valuable species can be introduced to advantage. Whenever a woodlot is thinned or cut-over, unless the land is to be cleared for farm crops and unless a new growth of trees come up within a couple of years from seed already in the ground or cast by other trees, planting should be done in order to keep the woodlot productive. A good thrifty woodlot will produce about two standard cords of wood per acre per year, or nearly one thousand board feet of lumber.

In thinning a woodlot, the trees which should be cut are those which are stunted, diseased, injured by insects, badly fire-scarred or dead; also trees of inferior species, as large beech which are crowding more valuable ones, such as sugar maple, white ash, white oak, hickory, etc. Slow-growing trees which are crowding fast-growing ones should also be cut.

In some woodlots the beech are the largest trees present. They form heavy crowns beneath which other trees can grow only very slowly, if at all. The beech is a tolerant tree. It will stand much shade and its proper position in the forest is as an under-story to light-demanding trees, such as basswood, black walnut, elm, black cherry, etc. The reason it occupies such a dominant position in the woodlots today is because the timber has had little value in the past and when the other trees were cut the beech remained; thus becoming the largest trees and shading or stunting others.

If a large amount of timber is to be sold by contract, an estimate of the amount should be made and its value determined before selling. Bids should be secured from several reliable parties if possible. It may be better to sell logs rather than the standing timber.

After cutting, it is often desirable to plant up the openings with trees. Forest planting in itself is a good investment on poor soil and on areas not suited to other crops, as well as for windbreaks and to hold shifting sand. The species to plant depends on the soil, and the objects which the owner has in mind. For forest planting in general a spacing of six by six feet, requiring approximately twelve hundred trees to the acre is best.

Harvesting the Ice Crop.

Each year dairymen lose thousands of dollars from returned sour milk, poor butter, and low quality cheese. These losses are very largely due to improper cooling of the milk and cream on the farm. For good results milk and cream should be cooled to fifty degrees or lower and held there; and as this usually can best be done by the use of ice, dairymen should take advantage of any near-by lake or stream to obtain a supply of ice for next year.

The ice-harvesting season fortunately comes at a time when there is the least work on the farm for men and teams, and consequently the actual money cost is usually not very great.

The quantity of ice needed depends upon the number of cows milked, and

the method of handling the product. It has been found that, with a moderately good ice house, one-half of a ton of ice per cow is sufficient to cool cream and hold it at a low temperature for delivery two or three times a week. One and one-half to two tons per cow should be provided where milk is to be cooled.

A cubic foot of ice weighs about fifty-seven pounds, so in storing it is customary to allow from forty to fifty cubic feet per ton for the mass of ice. At least twelve inches must be left between the ice and the wall of the building for insulation, unless the ice house has permanently insulated walls and an unusually large space for insulation beneath and above the ice. From these figures it is possible to calculate readily the quantity of ice that any given ice house will hold.

Where a lake, pond, or stream of clear water is available, some preliminary work in preparing the ice field will be required before freezing weather sets in. It is therefore advisable to make all plans for the work as soon as possible. Water for the ice supply should be entirely free from contamination or pollution. Ponds and sluggish streams usually have grass and weeds growing in them, so that the ice harvested is likely to contain decayed vegetable matter, which is always objectionable. They should therefore be thoroughly cleared of such growths before the ice has formed.

In some sections it is necessary to impound the water for producing ice. This may be done either by excavating and diverting a stream into the excavation, or by constructing dams across low areas. In localities where very low temperatures prevail for several weeks at a time, and the supply of pure water is limited, blocks of ice may be frozen in metal cans or in special fibre containers.

In harvesting ice it is desirable to have a field of sufficient size to fill the ice house at a single cutting, as the thickness and quality of the ice will be more nearly uniform, and the necessary preparation for cutting and harvesting need not be made but once. In many instances, however, the size of the pond or stream is such that it is necessary to wait for a second crop in order to fill the ice house. The average farmer requires only a comparatively small quantity of ice, so that even a small harvesting surface will usually prove large enough, especially if ice is cut the second time. The square feet of surface required per ton when the ice is of different thicknesses is shown in the following table. Size of cake is twenty-two by twenty-two inches.

Square Feet of Ice Surface Required Per Ton of Ice.		
Thickness of Ice, Inches.	Number of Cakes Required Per Ton.	Cutting Space Required Per Ton. Sqr. Ft.
4	31.3	105.4
6	20.9	70.2
8	15.6	52.6
10	12.5	42.1
12	10.4	35.1
14	8.9	30.1
16	7.8	26.3
18	6.9	23.4
20	6.3	21.1
22	5.7	19.1

When a small quantity of ice is to be harvested, but few tools are required, the following list contains those actually needed for harvesting ice on a small scale: Two ice-saws, one hand-marker, one pulley and rope, two pairs of ice tongs, two ice hooks, one pointed bar, and one straight-edge. While these tools are all that are necessary, additional ones, such as the horse plow and marker, horse scraper and marker, and a calking bar, are convenient, and will help to expedite the work of ice harvesting.

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The Growing Child—Article III.

How to Recognize the So-Called Children's Diseases

Under the term "children's diseases" we usually include measles, scarlet fever, diphtheria, chicken pox, whooping cough and mumps. Prior to the general introduction of vaccination smallpox was also one of the children's diseases, being just as prevalent then as measles and scarlet fever are now.

The children's diseases are readily spread when children are brought together in large numbers, as in school or a poorly ventilated moving picture hall. It is natural that the classroom is often the means of spreading the infection. This is especially likely when there is no system of school medical inspection, and when parents have not been taught their responsibilities in keeping infected children at home.

Experience shows that in most instances in which children's diseases are contracted in school there had been failure to keep an infected child at home, or a failure on the part of the parent to recognize the fact that there was anything seriously wrong with the child.

It may be well, therefore, to give a few of the important symptoms by which a parent can recognize the various children's diseases.

Measles.

This usually comes on about ten days after the child has been exposed. The child may come home from school somewhat drowsy and irritable. An observant mother realizes that something is wrong. The child may complain of feeling chilly and may even have a real shaking chill. At night the irritation increases and the child is feverish and restless. Sneezing, a hoarse, hard cough, and some running from the nose convince the mother that the child has "caught cold." On the following day the child's bloodshot, watery eyes will attract attention, and the experienced mother may then suspect measles. At this time a physician will usually be able to make a definite diagnosis, for on opening the child's mouth a careful look at the inner side of the cheek shows a few characteristic white-tipped red spots, the size of the head of a pin, which are one of the signs of measles.

Mothers experienced in using a clinical thermometer will find that the child has some fever, reaching 100 degrees or 101 degrees or more on the second day. Usually after two or three days of the symptoms described the rash appears. This shows first behind the ears, on the neck, or at the roots of the hair, over the forehead. It appears as small dark-red spots, which are at first few and scattered and resemble flea-bites. Within twenty-four hours the rash is spread over the body and the child looks very much speckled and swollen. In from five to seven days the rash begins to fade and within three or four days more has entirely disappeared, leaving only a faint mottling of the skin.

It is not the purpose of this article to describe the various symptoms, complications and treatment of different cases of measles. Those who desire such information should write to Dr. J. J. Middleton, Provincial Board of Health, Parliament Bldgs., Toronto. Careful studies have shown that the

germ of measles is present in the discharges of the nose and throat even before the rash appears. In fact, just before the rash comes is probably the time when the discharges are most highly dangerous to other children. No child suffering with symptoms described above should be allowed to go to school or to mingle with other children. In all cases of doubt a physician should be called to decide what should be done. The danger of spreading the disease to others disappears soon after the appearance of the rash, so that in uncomplicated cases it is usually considered entirely safe to have the child return to school a week after the rash first appeared.

Scarlet Fever.

Within a week—sometimes within two or three days—after your child has been exposed to scarlet fever, if she is a susceptible person, you will hear her complain of sore throat. Vomiting and fever accompany the sore throat, and from twelve to thirty-six hours later a bright red rash will appear on her neck and chest. This spreads rapidly over the whole body, with the exception of the face, which usually escapes.

By this time you will be pretty sure you have a well-developed case of scarlet fever on your hands, and the complications and after-effects of this disease may be so serious that no mother should attempt to handle a case alone. Deafness may result from scarlet fever, and it is not on unknown thing to have a child die suddenly from kidney disease after it was thought he had entirely recovered from an attack of scarlet fever.

If your child has the above symptoms send for a competent physician, who will guide you through the pitfalls of this disease. He will tell you that it is contagious from the very beginning until all discharges from the nose, throat and ears have ceased, usually a period of about five weeks. Desquamation, or peeling, generally begins about the eighth day, but the flakes and scales are not now looked upon as likely to be contagious. The patient himself, and anything (clothing, toys, upholstery, etc.), which have been contaminated by discharge from his mucous membranes are the chief infecting agents. Hence, the importance of keeping the patient and anything which he has used from coming in contact with other children.

As a rule, scarlet fever keeps a child out of school about six weeks, but this, of course, depends upon the cessation of all discharges from the nose, throat, ears and any glands which may have broken down in the course of the disease.

A frequent means of spreading scarlet fever are the mild cases—those children who do not feel really ill, and perhaps complain of nothing but a mild sore throat. But these cases are just as contagious as severe ones, and just as apt to be followed by ear and kidney troubles. Unfortunately, too, a very severe case may be contracted from a very mild one, and the mother who sends her child to school with a sore throat runs the risk of causing some other child to suffer great harm and perhaps death. Keep your child at home when he has a sore throat.

Fertilizers on Corn Pay Handsomely.

Long time experiments in corn growing sections show material increases to be possible if fertilizer of high grade is applied in sufficient quantities. Four leading American Agricultural Experiment Stations have shown it possible to increase corn yields by an average of 21.7 bushels per acre. At the same time the increase in fodder on the same blocks exceed one-half-ton. Such increases if made on the average Ontario farm would be of enormous value. An interesting test in this regard was carried on last summer in Dundas County, close to the town of Winchester by Mr. A. Christie, the report of which is as follows:

From applying 200 lbs. per acre of 3-8-3 fertilizer there was an increase of two tons per acre, from 400 lbs. of 3-8-3 there was an increase of five tons per acre. The corn was well ripened and well eared. An earlier report records the fact that "the beneficial effect of fertilizers could be distinctly noted. Each fertilized plot was taller and of a darker green color."

Five new school districts have been formed in Saskatchewan.

Welfare of the Home

Unless We Are Well We Cannot Be Perfectly Happy or Perfectly Useful.

Importance of Good Footwear.

"Tell the women for me," said a woman doctor to the writer, "that most of the foot trouble and pain they suffer comes from worn-down or run-over heels. The heels of their shoes should be straightened every two weeks if necessary!"

That would be "going some" for some of us who live "way out of town" with only bad roads and more or less indifferent or over-worked "menfolks" to connect us with repair shops.

Oh, our poor feet! Oh, these faithful "understandings" that connect us with our earth-home! If we abused our eyes or our livers as we do our feet—

We are not all to blame, at first hand, for our crooked, twisted, dwarfed, half-helpless feet, on which we must stand and walk and run many hours of each day, in order that the home roof may be kept intact over the heads of our dear ones. When our little feet, lovely as rose petals nestled in the mother-hands that cherished them, those same mother-hands ignorantly cramped them into "pretty" shoes that were ill-shaped and too small. But they looked "cute" and—Baby's feet began to be deformed, that is de-formed, changed from the perfect foot form Mother Nature has made.

Some of us had our feet spoiled by our parents' inability to buy correctly-shaped shoes for all the pairs of "understandings" that clustered about the home hearth. Others of us, when we began to think about "style" forced our feet into cruel shoes, enduring pain for looks. Thousands upon thousands of women wear out their once shapely "best" shoes for every day housework and think they are economical and self-denying because they "grin and bear" nature's protest of pain.

How to Use the Toothbrush.

There is more to brushing the teeth than just wetting the brush, putting on a little tooth paste, giving the teeth a hasty "once over," and then rinsing off the paste. The teeth must be brushed inside and outside and on the grinding surfaces. A thorough brushing will take at least two min-

utes. Since there are certain motions you must go through to clean them effectively it is sensible to fall into the habit of doing them the same way every night. It is particularly at bedtime that they should receive the most thorough cleansing; if food is left in them over night, they will decay much more rapidly.

With the teeth nearly closed, place the brush inside the cheek on the upper gums, move in a circle, backward and down to the lower teeth and then forward and up, moving the brush gradually toward the back teeth till all the teeth on that side have been brushed with a circular movement. This should be done quickly and lightly, and repeated several times. Brush both sides and the front teeth this way. There is nothing to be gained by brushing straight back and forth—that way you only touch the high spots.

For the upper teeth, hold the brush with the bristles pointing upward, and the thumb on the back of the handle. Brush the inside of teeth and gums rapidly and lightly with an up-and-down rolling movement.

For the lower teeth, hold the brush in your fist, with your thumb lying across the back of the handle, tipping the handle of the brush up and using chiefly the tuft on the end of the brush. Use a quick, light, up-and-down rolling movement.

Lastly, brush the teeth with an in-and-out stroke on the surfaces which you use to chew the food.

You should have your own brush and should allow no one else to use it. Choose a smallish, rather stiff brush, with the bristles in tufts and any dentifrice which appeals to you. The gums, as well as the teeth themselves, should be cleaned each time. After brushing, the mouth should be thoroughly rinsed with clear water.

Toothpicks will not clean satisfactorily between the teeth—it is much better to use dental floss. Holding one end in each hand, rub it back and forth between the teeth till all the food is loosened and removed, being very careful not to injure the gum tissues. Remember that four-fifths of the decay takes place either on the tops or in between the teeth—the very parts that it is easiest to slight-

Salesmanship on the Farm.

After farmers have formed their organizations for the handling of the main products of the farm there still remains the problem of selling the small products, which in the aggregate amount to many dollars each year. The location of the farm, the class of products produced and the demands of the trade must be constantly studied. The rapidly increasing fastidiousness of the consumers is making the marketing problem as regards vegetables, fruits, eggs, poultry and dairy products more complex every year. So exacting have many dealers and consumers become in their demands for better goods that the producers must study their fancies, analyze them and translate them, so that they can apply them to the marketing of what they have to sell. To further complicate the selling problem there are many consumers who buy food primarily upon the testimony of the eye, which is pleased with form and color, rather than odor and flavor.

One must produce such goods as the market demands, and have them for sale at such times as people want to buy. The more favorable the combination of these circumstances, the brighter are the chances of success. Take to market only the choicest goods and find a special market for the poorest stuff, thus making a name for your products. One can not change people's tastes. When a certain product is popular in the market it will sell quicker and higher than even a better product with which the consumers are not acquainted. One must familiarize and practice the teachings of art and psychology in the growing and preparing of these small products of the farm.

There should be a good salesman on every farm if the best prices are to be obtained for the products. If the owner is not a good salesman, the wife or one of the children should be encouraged to look after the selling end of the business. One scarcely realizes how many small things there are about the farm that can be turned into money, things which in themselves do not amount to so much, but which amount to a tidy sum in the aggregate. A young lady who had succeeded in paying off hundreds of dollars of debts left by her dead father told the writer that she had done it by having something to sell every week in the year, no matter how little it was.

The question of marketing the many small products of the farm is a serious one. Unless there is a good salesman it can hardly be profitable, and if the salesman is an able-bodied man, whose being away from the farm means neglect of the larger work, it is decidedly an open question. But such products as fruit, vegetables, poultry, eggs and dairy products can be profitably marketed by women and children. As they gradually become accustomed to the business they will be able to find a profitable market for many things which could be profitably produced on the farm. Farming as a business is made up of little things, and those who have achieved the greatest financial success on the farm have devoted

special attention to the selling end of the business. We believe that the farm would have greater attractions for women and children if they were encouraged to look after the marketing of the small products, and given a reasonable share of the proceeds to use as they see fit.

Rabbits Injure Brambles.

We have found that it pays to watch the blackberry canes during the winter and note if rabbits begin visiting the patch and eating them off during the night just about at the snow line. Of course, the fruit is borne on the wood produced during the previous year and if canes are cut down the quantity of berries produced is correspondingly reduced.

If the rabbit visits are noticed early in the winter they can be trapped before much injury is done. It is difficult to protect blackberries in the way trees are protected because of the large number of canes. A poultry fence around the patch is one of the best protections. By keeping down brush piles, stone heaps and scrap piles, the rabbits have few places to hide near the berry patch and there will be less danger from the pests.

We have noticed that the rabbits do not eat red raspberry canes on our farm, while they will attack black berry canes but a few feet away. This seems to prove that the wild animals have considerable sense of taste and like to select their food from among the best-like plants.

Field mice do not seem to injure any of our berry canes although they have injured young trees in the near vicinity. If there is danger of the canes being injured by pests it pays to remove all of the old wood after the berry harvest and leave the new wood until the next spring. Then the canes can be thinned out and enough left to produce a profitable crop.

Now is the Time to—

Be neighborly.
Mend harness.
Make snow-plows.
Study seed catalogues.
Place orders for fertilizers.
Get your bean-poles ready.
Join the Better Homes campaign.
Get the ice house in shape for ice.
Burn out the chimneys on a wet day.
Keep the wood box filled to overflowing.

Co-operate with your neighbor in a business way.
Remove snow from currant and other shrub bushes to prevent breaking.

Cut down the grain for horses and force exercise so they won't become soft.
Wrap small trees with wood veneer, heavy building paper or screen wire.
Plan a windbreak for orchard, but don't plant red cedars near an apple orchard.

The care given to a colt during the first year of its life largely decides what sort of a horse he will be. He should never be allowed to have even a short period of insufficient feed, as if once stunted he will never make up the loss.