

# 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., 73 Adelaide St. W., Toronto.

## CULTIVATING THE GARDEN.

Nothing will take the place of cultivation for growing crops. If you cannot give what is needed to your garden, better not expect good results, as you will not get them.

There are three particular things we aim to accomplish when we give cultivation to growing crops, and by "cultivation" is meant both that given by hand and by tools or machinery. The effect is the same; the difference is merely the means used to accomplish it.

First. The keeping down of weeds, which, if not kept in check, will crowd out and smother the growing crops, and deprive them of needed moisture and plant food. This is a serious reason for cultivation. Your garden cannot support, at one and the same time, crops of vegetables and weeds. Of course, you prefer the vegetables; hence the necessity of keeping out the weeds.

### When To Begin Hoeing.

Hoeing should begin as soon as the crops are planted, if the rows or drills have been outlined. Or, if the rows have been marked by quick-growing plants, such as the radish or lettuce, as soon as they appear. This is a great advantage in a dry spring season, as the soil moisture can be conserved from the beginning.

Deep hoeing is a mistake, except in a very few rare cases, which need not be considered here.

Hoeing is not as easily done as would seem. Beginners as a rule take too large a "slice" or bite with the blade at one time. This merely chops the soil into large clods, especially when deep hoeing is done. The proper way is to give the hoe a good slant, and when hoeing for weeds, just skim off the surface. Any perennial weeds, such as the docks, plantains, dandelion, etc., should be dug out, root and all, and destroyed.

However, there are exceptions to the above, in the cases of those plants which are killed-up. When working with these we draw the soil up around the plants, a little each time, rather than all at once, as this enables one to work the soil close to the plants as well as around them, while at the same time raising the soil around them in time to the desired height.

Much of the discomfort of hoeing is due to dull blades. A hoe should be kept sharp as regularly as an axe—for the same reason—to make it cut well. When filing make the bevel on the outer side of the blade. A clean blade also adds much to its effectiveness and lessens the labor of hoeing. The hoe should be kept polished so that it will come out of the soil free from adhering particles. Any tendency to rust can be prevented, or cured by the application of a

piece of soft brick and a little machine oil to the effected places.

### Value of Dust-Mulch

The second reason for cultivation, so far as the garden is concerned, is to keep on the soil about and between the plants what is known as a "dust-mulch." A mulch is a covering put on the soil for a particular purpose. We mulch about shrubs and herbaceous plants in the fall to protect them over winter by keeping the frost from the soil. In the same way we prevent evaporation by covering the ground with a mulch of dust during the hot, dry days of midsummer.

It does not require a heavy dust mulch to do the work perfectly. Hoeing for this purpose should not be done deeper than two inches—less, if you are skilled with the hoe, as it does not require a deep mulch to cut off the movement of the moisture from the bottom up.

Keep in mind the fact that the dust mulch, once made, does not last forever—or for the season, for that matter. Every time it rains it is spoiled, and the capillary action of the soil from top to bottom renewed, and for this reason the soil should be worked after all rains to break up the crust which forms on all but very light sandy ones after every rain.

This soil-crust is one of the worst things for a garden, and many otherwise good ones are spoiled for the best results by ignorance of this fact. Keep it broken up all season. For the larger garden there are the hand-wheel tools, both for planting and cultivating purposes. These will take away a very large percentage of the drudgery of the garden if used where the area is sufficient to warrant it. These combination tools can be had for a number of purposes.

### Cultivating After Rain

When using the wheel-hoe, set the teeth so that the cultivating will be shallow—not over two inches deep, and teach yourself to run close to the plants without touching them. This will obviate much back-breaking work in the following up with the hand-weeder always needed after the wheel-hoe has gone over the garden, to finish off the few weeds which cannot be caught by the wheel-hoe.

It should be understood that while cultivation is required after every hard rain, yet one must use judgment not to do this before the soil is dry enough to have it done without making it harsh. A good test is to take a handful of soil and squeeze it tightly. If, when the hand is opened, the mass of soil breaks apart or retracts, it is all right to be worked; but if it stays in a tight mass, like putty, let it alone until it gets in proper condition.

## The Dairy

One morning recently, I was over to the next township on some business. I went in to see a friend of mine, who has a large farm. I walked out to the barn where he was just finishing his "chores." I was surprised to see the change that had taken place in his tie-up.

"Good morning," I said to him, "this is certainly a surprise! The last time that I heard from you, I understood that you were going out of the dairy business. Now here you have your tie-up all made over; what does it mean?"

"Well, I've found out a thing or two, since I saw you," he replied. "Yes, I was pretty well discouraged then. You remember I had been having more or less trouble with the creamery. They were 'kicking' about my cream all the time; they said it had 'off' tastes and would not keep. I could not seem to tell what the matter was; I thought perhaps that they were prejudiced. I was ready to sell my cows.

"One morning as I was milking my cows, a neighbor, who is a successful dairyman, came in. We got to talking about things and he advised me not to give up. 'I think you can make things all right,' he said. 'He called my attention to the condition of my cows. They were all covered behind, on their flanks and tails, with dirt and manure. Even their udders were none too clean. But I did brush those off when I milked. But with the cows that way I was unable to keep the milk clean when I milked, pieces of dirt and dust would get into the pail. You see, I got careless and did not clean them off regularly. Nor did I give them much bedding and they would lie down in the droppings and get all dirty.

"You notice that I now have swing stanchions hung on chains? If you remember, I used to have them tied with chains around their necks attached to a pole. With that arrange-

ment they had too much freedom so that gave them a chance to get dirty. But these stanchions give them enough liberty and at the same time keep them from getting too dirty.

"I began to keep them cleaned off and I was very careful not to allow any dirt to get into the milk. You see, I always supposed that the separator took out all the impurities! I know now after he explained to me, that it might do so with the large particles but by letting the large pieces get in, there was more or less of the dirt that got dissolved and went through the separator into the cream. I know of farmers that have that same idea; they think that the separator can purify the milk. That is not so.

"Well, since I made these changes in the tie-up, and also have been careful to keep everything clean when milking and separating, I have had no more complaints from the creamery."

### A Careful Maid.

Her grandfather gave to Elizabeth Ella a perfectly beautiful silk umbrella. It was rosy red, with a tassel so gay; And I thought, "I will wait till the next rainy day And see our dear little Elizabeth Ella Walk proudly forth with her new umbrella."

But what do you think? On the very next day, When it rained "cats and dogs" (as we hear people say), All drenched and dripping, I met my daughter, Looking much like a naiad just out of the water.

"Where, where," I cried, "O Elizabeth Ella, Is your perfectly beautiful new umbrella?"

She gazed at me in the greatest surprise And a look of reproach in her big blue eyes.

"Now do you once think," said she, "that I'd let That lovely umbrella of mine get wet?"

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## The Sunday School

INTERNATIONAL LESSON  
MARCH 21.

Lesson XII.—Jesus Ministers to the Multitude—Mark 6. 32-44.  
Golden text, Matt. 20. 28.

Verse 32. A desert place—The boat is their refuge when the pressure of the crowd becomes too great, and now, on some distant part of the shore, they seek quiet and relief. They have opportunity for conference concerning the results of their missionary tour and also to plan for their future work. Luke says they went to Bethsaida, the city on the east side of the lake, but he calls it a "desert place" (Luke 9. 10-12).

33. Saw them going—ran together—seeing which way the boat was heading, they ran around the shore at the head of the lake, crossing the Jordan flows into the lake not far from Bethsaida.

34. Came forth—When he disembarked from the boat. Saw a great multitude—They would not be avoided or put off. They determined to be where he was. Two or three miles in the dust and heat around the lake shore were nothing if they could only be with him. The purpose of Jesus to secure quiet and rest was defeated, and now at hand was the ever-pressing thought to see and hear and to be helped by him. Had compassion. The word used indicates a yearning toward them. Sheep not having a shepherd—"The people who do not know the law is accursed," said the Jewish leaders. The masses found no place in the thought of the scribes, who called them Am haarets,

people of the earth. The formal and freezing Pharisees repelled the multitude and labeled them "publicans and sinners." He began to teach them many things—He spoke from his heart to their hearts. Patience and tenderness must have combined these compassionate messages.

35, 36. The day is now far spent; send them away—In their eagerness to be with him all question of supplies had been forgotten. The situation was a perplexing one—the late hour, the hungry crowd, and means of procuring food, for the place was "desert," that is, uninhabited. That they may go into the country and villages and buy—This seemed the only thing to do. There was food somewhere in that region of the country, and if the people scattered about they could find it.

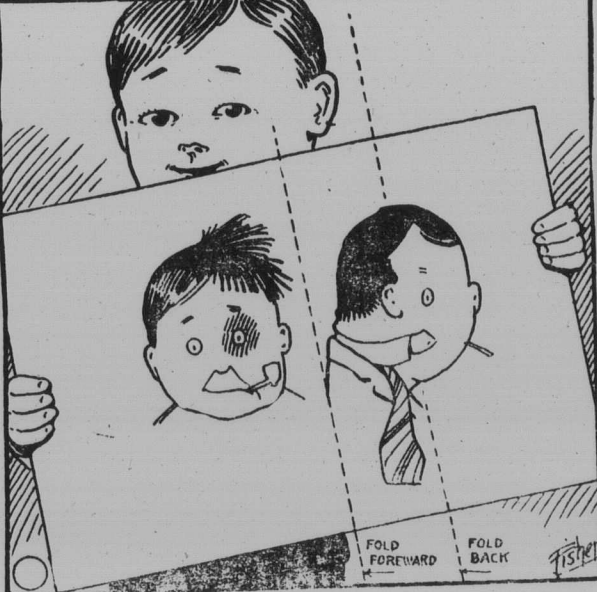
37. Give ye them to eat—Certainly a strange request in the face of the obvious fact that no food was on hand though they must have thought. They inferred that it could only mean they were to buy it. Shall we buy two hundred shillings' worth of bread?—Only Mark and John specify the sum—two hundred denarii. The denarius was a Roman coin worth about seven-tenths of a penny. It represents the wages for one day's work. The implication here is that as it would take two hundred denarii, a large sum, the whole thing was out of the question. It was greatly beyond their means. John tells that Jesus himself had his plan all thought out—"He himself knew what he would do" (John 6. 6)—and that his purpose was to test Philip.

38. How many loaves have ye?—Five and two fishes—It is John only who says: "There's a lad here, who hath five barley loaves, and two fishes," and he alone shows the absurdity of attempting to feed the people on this ridiculously small supply: "What are these among so many?"

40. Sat down in ranks, by hundreds, and by fifties—Literally, they reclined, "garden beds, garden beds," that

## FUNNY FOLD-UPS

CUT OUT AND FOLD ON DOTTED LINES



Upon this card our Willie drew.  
Two awful looking faces:  
But take another look before  
The picture he erases.

## 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, if stamped, addressed envelope is enclosed. Dr. Currier will not prescribe for individual cases or make diagnoses. Address Dr. Andrew F. Currier, care of Wilson Publishing Co., 73 Adelaide St. West, Toronto.

### Boils.

A boil or furuncle is a painful inflammation of the skin forming around a hair follicle.

One or several may develop in the same area at about the same time, or there may be successive crops of them.

While it is the rule that one hair follicle be involved, it is possible for the inflammation to include as many follicles as there are openings in the skin when it gets ripe and discharges.

This kind of eruption seems to have a particular predilection for young adults, though the exclusive privilege belongs to no age or sex.

Boils often come at the end of winter or in the early spring, when so many people feel run-down and seem to think they require medicine for spring cleaning.

Boils are caused by germs which produce suppuration and which may generally be found on the skin of most people, unless they have formed the habit of scrubbing and cleaning it with powerful antiseptics.

They may be perfectly harmless, but if the individual, and particularly his skin, offers slight resistance, and the individual is debilitated and run down, the germs will improve the opportunity to develop and cause boils.

Their development is encouraged when the diet of the individual is a faulty one and when he indulges freely in greasy food, half baked bread, pies, pastries and gravies.

Nervous irritation, overwork, constipation, and local irritation or friction of the skin, also favor their development.

Almost everybody has had them and knows how they act, look, and feel.

The tendency to these unpleasant visitors may be overcome by a careful attention to diet, abundance of sleep, out-door exercise and perhaps a good vegetable or mineral tonic.

The development of a boil should be arrested if possible, and I am sure it is often possible.

Sometimes this can be done by the careful application of pure carbolic acid, or some other mineral acid or caustic.

The injection of suitable vaccines is fashionable at the present time.

Heat applied to the boil will hasten its development, and a free incision will lessen tension, relieve pain, favor drainage and facilitate the removal of the core or slough.

The cleaner the wound is kept with antiseptic applications and dressings, the less the possibility that the infection will extend, and the sooner the patient will get well.

### QUESTIONS AND ANSWERS.

L. H.—1. What causes mitral insufficiency?

2. Is it curable?

3. What causes high blood pressure? Could it be due to the heart trouble?

Answer: 1. It is due to a lack of proportion between the mitral valve and its opening; in other words, the valve does not fit tightly into its opening—thus, causing the blood to back up when the heart contracts.

2. It is curable, though it may undergo compensations.

3. Changes in the walls of the arteries, due to increased tissue formation, which comes naturally with advanced years, or as a result of certain diseases. It is possible that the condition of the heart might have a bearing upon this condition of the arteries.

44. Five thousand men—Matthew adds, "besides women and children" (Matt. 14. 21).

### Revelation.

Into the heart of a rose I gazed,  
Nor found there a trace of guile;  
The beautiful flower disclosed to me  
Its counterpart—God's smile.

Into the face of a babe I looked,  
Saw no cravings for power or pelf;  
The innocent child revealed to me  
God's goodness, His glory, Himself!

The war is now costing the United States one million dollars per hour.

## PLANNING THE FARM ORCHARD

By L. H. Cobb.

This is the question that comes to everyone who intends to set an orchard, or even replace dying trees in the orchard they now have. It is not an easy matter to select the varieties for an orchard, and too often it is practically left to the fruit tree agent who takes the order. This is a serious mistake in most cases, for the best sorts are often the cheaper trees, and the agent is directly interested in selling the most expensive. He wants to sell the specialties his house is introducing if he can, and he will extol them at the expense of the standard varieties that you should buy instead.

### Use Recommended Varieties

Very often it will be a good plan to get in touch with the Provincial Experimental Farm and find out which varieties they will recommend, for they will know which sorts will do the best in the district, and can give advice as to the selection for the special kind of soil and location you have. Another good plan is to find out the names of the most popular varieties growing in your neighborhood, and see how you like them by sampling the fruit and examining the trees. Your soil may be such that a variety that is a general favorite will not be thrifty with you; the condition of the trees of this variety in your vicinity will tell the story. It wouldn't be wise to plant a variety that is doing out right along for your neighbors, provided another variety can be had with similar qualities.

### For the Season's Supply

The orchard should be carefully planned to meet the needs of the family during as long a season as possible. There is no need for a dearth of fruit at any season if this is done. From the time the Early Richmond cherry starts you off in the spring until the last Northern Spy apple is consumed there should be no let up in the supply of fruit in a condition to use. In spite of the fact that this is not only possible but easily managed, there are seasons when it is almost impossible to buy any kind of fresh fruit locally produced and scarcely a farm will have a regular supply.

Cherries, plums, apples, and peaches have good varieties ripening in order from the time the first is ready until the latest variety ripens, while apples alone can be so planted as to ripen as wanted.

### Varieties for the Home Orchard

Fruit for storing and putting up in

various ways for future use must receive due consideration, but too often the whole orchard is run to varieties best suited to this purpose. The Morello cherries, Elberta peaches, wild goose plums, and winter apples get most of the orchard. There is plenty of fruit for winter but a shortage during the summer season except when these special sorts are in condition. Many like the Early Richmond cherries better than the Morello, and the Montmorency comes between these and is superior to either for any purpose, to my mind. The Wild Goose is the poorest plum grown when it comes to quality, and it is a mystery to me why it is so generally planted when there are so many really good sorts. The Japanese are the best plums by all odds. The Elberta is a splendid peach, but there are others. There is no need to be without peaches, the big white late clings are gone with the coming of frost.

The pear season is shorter, but there are some of the early fall pears that can be used quite well before the main varieties ripen. Keiffer is planted exclusively and is a good general crop sort and very reliable, yet I would not want to do without a few trees of Tyson, Seckel, Duchess, and others that are newer and as good or better. The Bartlett is the pear par excellence, but the tree is not a good grower.

### The Size of the Orchard

The size of the orchard must govern the selection to an extent, as will the purpose for which it is planted. If it is intended to sell some fruit on the local market the home orchard can be relatively increased all along the line and give the best chance for a steady profitable market. If a larger acreage is contemplated with a view to selling on the general market then some standard variety will be selected for the larger portion of the orchard so the packing and grading can be done at the least expense, for it is just as easy to sell the whole crop of one kind as it would be to have it divided up among several. For the ordinary farmer, though, the local market with the smaller supply of the many varieties coming in regularly would give the best chance to get good prices.

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