

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.

The Garden Seed Bed.

A noted garden writer has said that the greatest pleasure in gardening is "the joy of seeing things grow," and in no way can this pleasure be had in the same measure as in the raising of small plants from seed for your own garden.

It does not require a very large space to grow a large number of young plants. For the home garden, 50 by 100 feet in size, a plot three feet wide by fifteen feet long will be amply sufficient. This for the start, but in following years, when you become more expert in handling of the seed bed, you will cut this down and get just as good results.

It is an advantage to have the seed bed long and narrow, so that it can be easily reached from the path, making the work more pleasant and getting better results. A short person will get better results with one thirty inches wide.

The location of the seed bed is very important; in fact, there is but one good location in every garden, and that is along the north fence, so that it will be exposed to the sunshine all day and be protected from cold winds. If the fence is an open one, such as palings or wire, it will be well to cover it along the seed bed with building paper, fastened on, to make it tight from the wind.

Good Drainage Necessary

The seed bed should be specially prepared. The soil should be deep and well drained. If necessary to get it so, excavate it to a depth of two feet, fill in four to six inches of drainage materials, such as stones, the size of railroad ballast, bats, coarse cinders or other similar mineral rubbish.

On this put the soil, which should be specially prepared. Use the loam removed from the excavation, with as much in addition as may be needed to take the place of the subsoil removed. Give it a heavy dusting with powdered lime, and one of a good chemical fertilizer. Work all well together.

On top of the drainage put four to six inches of the richest well-rotted manure you have available, and on this

the soil, which should then be worked as fine and smooth as possible. However, the soil is not just thrown in. It is an advantage in earliness to plant seeds on a bed which slopes to the south. This you can accomplish when putting the soil in the seed bed by making it six inches higher at the back than the front, using a board in front to retain it. This makes a warmer bed, and produces a better growing condition for continuous seed and plant growth.

In the seed-bed are planted the main crop or late varieties of vegetables, and a small space should be reserved for the transplanting of a few of the early ones when it is safe to plant them out, but before setting them in the garden proper.

Sow Seeds Compactly

Do not plant the different kinds of seeds promiscuously, or in long ribbon rows. Try the newer and better way. Mark off the seed-bed into as many squares as may be needed, each of a size to suit the quantity of seeds to be planted. Plot these on a paper, and mark the names of the seeds on them, as a matter of reference and record. You will find it very convenient to be able to work with all the plants of one kind right under your hand in a compact square, instead of having to walk along a long row.

Take sufficient time to plant the seeds in the seed-bed thinly; by which is meant do not crowd them in the rows. When planted carelessly they are likely to be bunched in some places and thin in others. Practice a few times dropping small seeds from the thumb and two fingers on a paper until you can do it evenly, and you then are ready to sow them in the soil.

One of the things desired to be attained in transplanting plants is to increase the root-mass before there is much top-growth. When a plant is taken from the seed-bed and transplanted it loses most of its root hairs, which are reproduced in greater number in its new location before the top gets additional growth. This makes for a vigorous plant.

The vegetables usually sown in the seed-bed are: Cabbage, onions, beets, cauliflower, parsley, peppers, celery, lettuce, tomatoes, chard.

Hoos

Two or three pigs are enough to a pen during cold weather for the animals crowd and when many are together they become very sweaty. Exposure while in this condition makes them unhealthy.

Little pigs are happy in a snugly built, warm, movable hog house, and so is their mother. Such a house is splendid in providing warmth, dryness, abundant ventilation, safety, comfort, convenience, serviceability, durability, low first cost, low maintenance, and pleasing appearance.

These movable snit houses are easily cleaned because they have solid wooden floors and plenty of space inside in which to work. That they are durable is proved by the fact that several such houses built at the Iowa Experiment Station in 1907 look as if they would stand ten years' more service.

Such a house is good for the brood sow, the little pig, the fattening hogs, and the herd boar. All are contented within its walls; and it costs not more than one half the present value of a 250-pound hog.

The Dairy

Finding The "Boarder" Cows.

I have been in the dairy business for fifteen years with varied success, says a dairyman. According to my experience it takes about five years for a cow to develop. Up to that age I am not positive whether she is going to be a "boarder" cow or not. Now if there could be some means provided to aid one in determining exactly whether a yearling is going to grow into a good cow or not, such means would prove very valuable to dairymen. Many of the heifers would be fattened and sold for meat while, on the other hand, not a few that go directly to the shambles without a trial at the pail would be given a chance to show their value as dairy animals. The scales and the Babcock test are the only ways a cow can do, but these can be used only when the animals are producing, and as a heifer may prove to be a good cow after an unprofitable season or two, we cannot see where the practical dairymen are going to avoid the heavy expense involved in weeding out the "boarder" cow and at the same time not waste valuable potential dairy cow material.

Artificial coloring of gold fish by keeping them in water containing certain chemicals is extensively carried on in Sicily.

Poultry

Selecting a Receiver.

In selling eggs in case lots, or live poultry by the crate, locate good trustworthy receivers and stick to them. The writer met a poultrykeeper the other day who had shipped eggs to the same city concern for twenty-five years. He seldom had cause for complaint about returns, and when he did complain, errors were quickly rectified. Between him and the commission firm there was more than an ordinary business relationship; there was friendship. The steady, dependable shipper gets the attention at the hands of a receiving firm that the producer does who ships first to one house, then to another.

Business standing and reputation should be considered in selecting a receiver. Some egg receivers deduct no commission, others deduct one or two cents a dozen, and still others charge a percentage. Some concerns buy either by case count or loss off (for breakage, bad eggs, etc.), and others by case count only. Simultaneous trial shipments and a comparison of returns from different firms is the best way of getting at facts. The concern which charges no commission may really be the costliest one to ship to. It will pay the producer of well-graded eggs to ship loss off where that is possible. On numerous markets there are no loss-off buyers.

Beware of the agent who calls at your farm and solicits shipments, promising better than market prices.

A Fan-Bag Obstacle Race.

To prepare the "race course" for this amusing contest, form a zigzag passageway about three feet wide by arranging two lines of chairs, tables, benches, and other articles of furniture. The more it winds the better it will serve the purpose.

Blow up a medium-sized paper bag and tie it at the top with string. Place the bag at the beginning of the course; then get a palm-leaf fan and, while one of the company times you with a watch, fan the bag along the passageway to the end.

You must take care not to allow the bag to strike at any time the sides of the course or any part of your person. Neither should you allow the fan to touch the bag during the entire effort. Should you commit either of those errors, you lose your turn. The player who covers the course in the shortest space of time without violating any of the rules of the game wins the contest.

"Observation is the most enduring of the pleasures of life." George Meredith.

Eat More Poultry and Eggs.

"We are short of red meat. Our soldiers and our allies require more than ever before. We are advocating in every household, every hotel and restaurant in this country the substitution of poultry for red meat. Increased production of poultry can be effected much faster than beef, pork and mutton. While we want increase in all the latter, we must have a quick response in poultry and poultry products. There is a great waste of poultry feeds from every household and farm. It requires little labor and cannot the poultry raisers of the country help us by providing the increased supply we need?"

These are the words of Herbert Hoover in an appeal directed to the American Poultry Association and producers of poultry and eggs in the United States. The words are just as applicable to Canadian Poultry Producers. More meat must be provided for the fighting men. Less of the meats that can be shipped must be eaten at home. Something else must be substituted for the red meat. Poultry and eggs make the best and cheapest substitute at the present time and should be used more than they are for that purpose.

The prices asked for these are reasonable when compared with the prices of other meats. At present rates poultry, either fresh or stored, is one of the cheapest meats on the market. Though new-laid are high, the stored eggs are reasonable in price and quite palatable. Fresh poultry is selling on many markets at from 15c. to 24c. per lb., and good stored eggs from 40c. to 50c. per dozen. These prices are practically the same as before the war but when compared with the present prices of other meats prove conclusively that they are no longer a luxury.

The prices of eggs and poultry were formerly comparatively high, and consumers, to a certain extent, discontinued eating poultry produce, now, when the relative prices have changed, the impression remains that poultry and eggs are still a luxury. As a

result the consumption of these is not as large as it usually is.

There are several good reasons why poultry and eggs should be used more than they are as a substitute for beef and bacon.—The soldiers and the Allies must have meat and we cannot send them poultry and eggs: We have a good supply of poultry products in Canada at present. They make a palatable and a cheap substitute for the red meat required by the soldiers: Poultry are more easily grown and can be produced in less time than other live stock: The young and the old can supply all the labor necessary for this work.

Take-It-Back Day.

Be quick to take it back again. The article you borrow; And don't postpone that duty plain To some remote to-morrow.

I fear it sounds a little stern. And yet I have the feeling That borrowing without return Is 'most the same as stealing.

Our neighbors good our needs supply Without a word of fretting. 'Tis wrong to pass such kindness by And pay it by forgetting.

Then take it back, whatever you owe, 'Till neighbors all are sunny; For friendly hearts, of course you know, Are worth far more than money.

Oh, all who labor, all who strive, Ye yield a lofty power! Do with your might, do with your strength.

Fill every golden hour— The glorious privilege to do Is woman's noblest dower. Then to your country, to yourself, to your own God—be true!

A weary wretched life is theirs Who have no work to do.

When making cakes with dripping if a few drops of lemon juice are beaten up with the dripping the cake will taste as well as if butter had been used.

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.

Who would not be covetous, and with reason, if health could be purchased with gold.—Temple.

Cancer.

Cancer is always a tumor, a swelling, a "lump," as many people say, and they are apt to think of a tumor as being necessarily a cancer. But to the doctor any kind of a swelling means a tumor; and there are at least a score of them—bone, cartilage, fat, fibroid and the like. Also there are several kinds of cancer differing in the degree of their malignancy (their life-endangering effects) and in their development. Most benign tumors, however innocent to begin with, may by reason of constant irritation become cancers; therefore whenever possible they should be removed. Thus may not only definite and sure cure be vouchsafed, but also such a relatively slight and shockless operation will result in the least disfigurement or mutilation. Certain kinds of moles and birth marks may take on malignancy. For their removal, only the expert advice and skill must be sought. An unskillful operator (many a beauty doctor is such) may leave some microscopic portion of the growth, which may become the seat or focus of a future cancer. Superficial cancers, as those of the face and lips, are reasonably recognizable by professional sight and touch and deep microscopic examination. Deep seat-microscopic examination of the organ involved in the growth and perhaps also of other associated organs. Therefore those

QUESTIONS AND ANSWER.

Take No Chances.

About a month ago a swelling formed under the left side of my tongue bluish black in color. About in the center of this is a little pus pocket. Although I have been using a mouth wash prescribed by a druggist I don't seem to notice the swelling go down. It is about the same size as at first. It troubles me mostly when I eat.

Answer—I have no desire to frighten you; but this may be cancer, as may any growth in the mouth that does not get well within a week or at most a fortnight. Go to a capable physician and get thoroughly examined. Yours is no case for over-the-counter prescribing. Read the above. I am mailing you further information.

Bronchitis.

I am 20 years old. This fall I broke down with my nerves. I have chronic bronchitis, and have had a bad set of boils and carbuncles. I have now no desire to keep up my physical being.

Answer—Are you sure the ailment is bronchitis; better get thoroughly examined. Am mailing you information regarding boils, which are most weakening.

FUNNY FOLD-UPS

CUT OUT AND FOLD ON DOTTED LINES



Sister tip-toed softly by. It really wasn't fair; For Willie thought he had her sure, And only caught the chair.

MOTHER WISDOM

By Fisticuffs and Quarrels the Child Works Out Ideals of Right and Justice

By Helen Johnson Keyes and John M. Keyes, M.D.

There are many ways in which children receive education; many ways outside of school, even outside of the direct influences of home. These are forms of self-education—education through the instincts.

Quarrelling is one of these educational instincts. It is exceedingly disagreeable to grown-ups; it is noisy, vulgar and selfish. Yet, undoubtedly, it is a means by which children learn for themselves the meaning and need of fair play, peacefulness and co-operation.

We may preach these virtues to our young people year after year without really gaining their attention. When Sam learns from Bill's fisticuffs that the social organization does not tolerate a bully; and when Julia finds out from May's bitterness that friendship will not endure piggishness, these children are beginning to become citizens.

Most of our moral progress since first we tasted of the knowledge of good and evil, has been along the line of yielding to other men the same privileges we claim for ourselves.

It has been a strangely slow progress. Truly it is curious that it should have taken our race hundreds and hundreds of years to learn the joy of being just to the human creatures with whom we share this earth.

Curious that we are learning so slowly that law and order make for happiness! Even into the midst of an age confident of its humanitarianism has broken the great European war. In view of all this we should be patient with our children who, like us, learn the golden rule very slowly and who, after having seemed to learn it, like ourselves, break it over and over again.

Fight For An Ideal

When men go to war, we look beyond the horror and brutishness and the atrocities and find the courage, the loyalty, the idealism of the fighters. Do not you believe that children when they quarrel and fight also have an ideal for which they are struggling? Surely they have! Beyond the coarse struggle for a sack of candy or for the front seat at their "show" there is a principle in their minds and they are working out a problem of right and justice even stronger than their greed.

I believe it is dangerous to make a habit of settling children's quarrels for them, to separate them in their encounters. I think the education of experience and the punishment of consequences are the strongest corrective forces we have. When we settle a quarrel we shield our children from the consequences of their acts and thereby, perhaps, make cowards of them or else headstrong men and women who will rush into experiences without counting the cost because they have never had to pay that cost.

I said it was dangerous to make it a habit to settle children's quarrels. Of course, there are occasions when they must be stopped abruptly. I do not believe that children should be allowed to disturb the quiet of the home and the work and rest of older

people. There is no necessity for it, and the effect of such license is their selfishness.

On the other hand, they must have the freedom of outdoors, space and privacy to wage their wars. Children will quarrel. Boys will fight. Fortunately, we can not help it. Their honor is involved and it should make us feel more trustful of humanity to observe that when a child's sense of honor demands a certain act, he performs it even though some grown-up may tell him his sense of honor is all wrong.

So then in quarrelling and fighting, a child has an idea of justice to fight for and a law of honor to fight with. These are his moral inspirations. Physically, in the fight, he must be strong, quick-witted and decent, all qualities deserving respect and exercise. Moreover, a boy's fights do not destroy friendships; they often make them stronger.

Quarrels Are Educational

Girls usually remain "huffy" after their quarrels, probably because these are only intellectual and do not have the exhilaration of physical exertion! Even so, I believe their quarrels are educational. They make girls less sensitive to disapproval and criticism, which is a hardening they need when they go out into the world; and these encounters teach them to take care of themselves and express themselves outspokenly, which power is a real defense to a girl in many perilous situations.

Teasing has become an employment in the school. It has all the traits of a broken-down profession.

It is such a thing as being broken down by the attack without feeling it. A child grows into a man or woman through his struggles, powers of working and playing fairly with other human beings. He does not learn this until he has found out the penalties of being unfair and ungenerous. What he learns from experience, he believes in thoroughly; what he is merely told he must believe in, he always feels doubtful about.

Moreover, what he learns for himself he likes; what is taught him by commands from other people he dislikes. The men and women like goodness are the real ones and we should give them a chance to find out the advantages of virtue.

I do not say that children need guidance and no checks. In the case of quarrelling and fighting, however, I believe harm comes of it in the moment when the peace of the household is broken (unless they are old enough to best guide themselves away from the quarrel).

The influences of a home member has his or her own part to play in the family and neighborhood. He should be generous.



INTERNATIONAL LESSON

FEBRUARY 3.

Lesson V. Jesus Lord of the Sabbath

—Mark 2. 13 to 3. 6. Golden Text, Mark 2. 28.

Verse 23. Grainfields.—"The sown lands." Not-breaking a path through the standing grain, but following the path through the fields, as one does in Palestine to-day.

24. Pharisees said—Mark's second mention of this leading religious sect, whose name, "Pharisee," "the separated," indicates their aloofness from the masses. They were known by their peculiar garb and their ostentatious piety, so roundly scored by the Master. A prominent element in the creed of the Pharisee was his Sabbath law.

How could Jesus and his disciples be religious leaders for the Jews if they violated the Sabbath? On the Sabbath day that which is not lawful—Not unlawful in itself, but unlawful on the Sabbath. Resting on the Sabbath was forbidden (Exod. 34. 21) but Jewish rabbis had decided that even picking a few heads of wheat and rubbing them out in the palms was reaping, hence, the offence of the disciples.

25. Did ye never read—He refers them to their own history for a glimpse of the larger meaning of the Sabbath. Under stress of emergency that may be done which at other times might be condemned as sacrilege. He enunciates a principle which the world has been slow to recognize, that the individual man is greater than any institution; that men are not to be sacrificed to bolster up institutions; that rigid restrictions must give place to the higher requirements of necessity and mercy.

26. House of God—The "tent of meeting" at Nob (1 Sam. 22. 19), a locality in the northeast of Jerusalem. The showbread—The law of the showbread is found in Lev. 24. 5-9. It consisted of twelve new-baked loaves placed every Sabbath on a table in two rows of six, sprinkled with incense and left for the week.

27. The sabbath was made for man.

not man for the sabbath. It is a vast number of observances of the Sabbath for the highest interests of every respect. He places man in institutions. Everything in state and church ought to serve to bring the individual to his best.

28. The Son of man is lord even of the sabbath—He will do what he pleases on the Sabbath, but he will not please to do anything save for the ministering to the highest needs of man.

1. Into the synagogue—This was again in Capernaum with no definite indication of time. His hand withered—The text suggests that it had become so; that is, by injury or disease. Luke tells us it was the man's right hand.

2. Watched him—The traditional law allowed help on the Sabbath if the man was in danger, but would Jesus do this paralyzed man on the Sabbath? 3. Stand forth—Jesus realized their critical attitude, but now publicly and formally challenges it. There is to be no question of his position concerning the Sabbath and this case will determine it.

4. Is it lawful on the sabbath day to do good or to do harm?—He appeals to their knowledge of the law. He is here the challenger. Matthew introduces Christ's words about the sheep fallen into a pit, thus showing that it was not contrary to the law to do a beneficent work on the Sabbath. Held their peace—This is peculiar to Mark. Evidently they could say nothing to his challenge for he was really backed by their traditional law.

5. Looked round about—An expression used several times, by Mark, indicating the sweeping glance around the listening circle. With anger—Not evil passion in this glance but a righteous indignation which is perfectly consistent with holy character. To be angry and sin not is the New Testament standard (Eph. 4. 26). Stretch forth thy hand—The healing is immediate, without contact with the sufferer.

Apples and dates make a good combination requiring no sugar. To prepare them, steam until tender in a covered pan, one and one-half cups sliced apples, and one-half cup of sliced dates, and one-half cup of one lemon with the juice and water.