

Farm Crop Queries

Conducted by Professor Henry G. Bell.

The object of this department is to place at the service of our farm readers the advice of an acknowledged authority on all subjects pertaining to soils and crops.

Address all questions to Professor Henry G. Bell, in care of The Wilson Publishing Company, Limited, Toronto, and answers will appear in this column in the order in which they are received. As space is limited it is advisable where immediate reply is necessary that a stamped and addressed envelope be enclosed with the question, when the answer will be mailed direct.

Question—T. A. L.:—What is the best way for putting fertilizer on for potatoes and how much fertilizer would you put on a quarter of an acre? Should the fertilizer be mixed with earth before the potatoe are put in or would it be all right put in the hills with the seed? I have just read it would burn seed.

Answer:—Two hundred pounds of fertilizer to the quarter-acre is a moderate application for potatoes. This fertilizer should analyze 2% ammonia, 8 to 10% available phosphoric acid and 1 to 2% potash, if obtainable. In applying this, scatter 100 pounds over the quarter-acre when the ground has been dug or plowed. The harrowing or raking of the ground will work this available plant-food into the soil. When the holes or drills for the potatoes are made, scatter the remaining hundred pounds of fertilizer in a light dust along the potato furrows, or into the holes where the potatoes are to be dropped. Cover this with a light dusting of soil before dropping the potato pieces. There is no danger of fertilizers burning seed if care is taken to mix the soil and fertilizer as described. When the fore-going has been done, drop the seed and cover as usual. It is sometimes found highly advantageous to scatter another light application of fertilizers around the potato hills or along the rows when the plants are up two or three inches. This can be worked into the soil when the potatoes are cultivated.

Question—W. W. L.:—Please send me full particulars how to treat potato blight before planting to prevent potato blight.

Answer:—No pre-planting treatment can be given to potatoe to prevent blight. If possible, make sure that the potatoes being used for seed were not produced on a field that has been infected with blight. The blight winters in the tubers, and sends its fine threads up through the stalks where they flower on the surface of the leaves of the plant. When the disease matures it sends out large quantities of tiny spores. When these spores light on other damp potato

plants, they infect the other plants with late blight disease. To prevent this the potato grower should spray his crop with Bordeaux mixture five to seven times during the growing season. Begin as soon as potato plants are up three or four inches and spray at intervals of 10 days to two weeks. Bordeaux mixture is composed of 5 lbs. of lime, 5 lbs. of copper sulphate and 50 gallons of water. Dissolve the lime and the copper sulphate separately, then mix and dilute with the water. Apply the Bordeaux mixture immediately, since the mixed material will not retain its strength if allowed to stand any length of time. The dissolved lime and dissolved copper sulphate may be stored un-mixed, and just sufficient for the spraying mixed up at the times desired. The proper quantities can easily be calculated from the mixture given above.

To prevent scab and to assist in control of the spores of other diseases, it is beneficial to dip potatoes in a mixture of corrosive sublimate, one part to a thousand, by weight. Dissolve a tablet in a quart of water, or an ounce in 30 quarts of water, and soak the potatoes for two hours. This material is very poisonous and must be handled with great care. Potatoes which have been treated should never be used for human or animal food.

You can prevent potato scab by soaking the potatoes in a solution of one pint of formalin to 30 gallons of water. They should remain in the solution about 20 minutes. Formalin is a gas dissolved in water. It kills the spores on the surface of the potato but does not injure the food value.

Question—C. D. E.:—Is fertilizer that has been stored up in a dry shed for two years as good as fresh fertilizer?

Answer:—If the fertilizer has been stored in a dry place, it will not have lost plant-food through storage. However, before you use it, you should empty it out on a hard floor and break it up by pounding, after which it should be shoveled through a sand screen. This will put it in good condition for drilling.

The Dairy

Don't sacrifice any heifer calf from a first-class dairy cow. Cottonseed-meal is a valuable feed in connection with pasture. It is a good cream and butter feed, and the fertilizing values can be passed on to the land.

Give the cows a good feeding of hay before turning into the fresh pasture. This will prevent the excessive scouring that results from a too liberal supply of fresh grass.

Cuts Labor in Half

Do you first disinfect, and then go over all surfaces with whitewash in order to keep your stables, dairies and poultry houses bright, cheerful and free of lice, mites, fly eggs and the germs of roup, white diarrhea, cholera, glanders, etc.?

Such a method is a waste of time, money and labor. Use Carbola instead—it does the two things at the same time. It is a disinfectant that dries out white—not dark and colorless—and gives much better results.

Carbola

Carbola is a mineral pigment combined with a mercuric twenty times stronger than pure carbolic acid. Comes in powder form, ready to use as soon as mixed with water. Applied with brush or sprayer. Will not clog sprayer or spout. Will not stain or discolor. Will not flake, blister or peel off. Will not fade. Absolutely non-poisonous.

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Horse Sense

Foot punctures, caused by treading upon sharp objects, result in lameness, and, in many cases, the nail or other object is visible when the foot is lifted. Remove foreign body, pare wall down to the sensitive part, fill the opening with 1 part iodiform to 6 parts boracic acid and keep so until lameness disappears, then get shod with a leather shoe as for corn.

Plan for a variety of horse feeds. Barley is an excellent grain for a horse; also peas. These, of course, should be crushed before feeding.

If the breeding mare is inclined to have too little milk, feed her for a month or six weeks before foaling, with this end in view. Give her clover-hay, wheat bran, oats and carrots. Be sure that she has exercise in the open air every day. She should spend the warm part of every day in a sheltered yard.

Light work will not injure her, but comparatively few men have sufficient judgment to work a valuable breeding mare with safety.

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MUSIC IN THE HOME

The Educational Value of Music—The Power of Modern Musical Instruments to Reproduce and Interpret the Old Masters.

That some knowledge of music is essential to a well-balanced life is now an almost established fact. Music, let it be noted, is the instinctive impulse of the human being from the cradle up, and it reverberates the world over. It is the adorable gift of God, which instinctively seeks to express itself in a manner more fundamentally natural, perhaps, than speech itself.

Who has not been attracted by the cooing music of the cradled babe long ere it sought to utter a word? Does it seem natural to instinctively crave to express one's every sense of feeling in speech? The claims of music for greater educational recognition are so manifold that one wonders that it is not given more prominence and taught more thoroughly in our public schools.

What magnificent opportunities there are for the pupils of to-day to enhance their musical education, as compared with the hard striving times of the old masters, who had to content themselves with such limited instruments as the old harpsichord. Can you imagine how manifestly grateful Bach, Handel and other old masters would have been had they at their disposal such high grade pianos, as manufactured to-day, capable of responding to every emotion? It is difficult to conceive how it was possible for these old masters to give to the world such beautiful and immortal works, handicapped, we might say, with such inferior instruments. Were they in possession of such perfected instruments as we have to-day, they could conjecture what undiscovered form of music might have been handed down to us.

From the educational standpoint how potential would be the influence to-day if the wonderful mechanical musical instruments, with their appliances, we now have, existed two hundred and fifty years ago, thus enabling Bach, Handel, Haydn, Mozart and other illustrious old masters to relegate to posterity faithful reproductions of their performances by means of the player-piano and phonographs.

It is questionable that the potentialities of the player-piano and phonograph have been fully realized. It was an extremely delicate and difficult matter to convince such artists as Patti, Melba, and other prominent artists of the possibilities of the phonograph, as likewise it was Paderejewski, Greig, Moszkowski, etc., in regard to the player-piano. It is said that so highly are the master rolls and records of some of these masters valued that they are carefully stored away in specially constructed vaults in Paris and elsewhere for revelation to music students in years to come.

Music, the subtlest, the most powerful joy of life, that in which solace is found, lives within all. Within many it is dormant—it needs kindling.

An Italian grape-grower accidentally discovered that the presence of tomato plants in his vineyard made short work of the phylloxera, with which his vines were infested. This insect destroys both the root and the stem of the grape-vine.

Don't give the breeding mare-corn. A pair of good shears is a handy thing to have down at the barn. A properly fitted collar will not rub any part of the shoulder. Collars should fit snugly, on top and on the sides.

Your Problems

Conducted by Mrs. Helen Law

Mothers and daughters of all ages are cordially invited to write to this department. Initials only will be published with each question and its answer as a means of identification, but full name and address must be given in each letter. Write on one side of paper only. Answers will be mailed direct if stamped and addressed envelope is enclosed.

Address all correspondence for this department to Mrs. Helen Law, 235 Woodbine Ave., Toronto.

S. R.:—Between two and three weeks before the ceremony is the time for sending out invitations to a wedding. Announcements may be sent to those who do not attend the ceremony. 2. It is perfectly good form to have no attendants at a quiet home wedding. The bride may wear a veil with a simple white dress and it is not necessary to wear gloves when the sleeves are long. 3. Yes, have music very soft and sweet during the ceremony.

W. E. B.:—These are some of the most commonly known meanings attached to certain flowers: Oak, patriotism; myrtle, beauty; olive, peace; ivy, revelry; roses, love; apple blossom, preference; buttercup, riches; anemone, frailty; anticipation; dandelion, coquetry; daffodil, unrequited love; lilas, fastidiousness; narcissus, self-love; marigold, contempt; golden-rod, encouragement; lily, majesty; purity; calla, magnificent beauty; forget-me-not, true love; poppy, oblivion; amaranth, immortality; gentian, virgin pride; geranium, deceit; foxglove, insincerity; hyacinth, sorrow; honeysuckle, fidelity; pansy, thoughts; heliotrope, devotion; sweet William, gallantry; candytuft, indifference; cowslip, youthful beauty; white violet, modesty, and snowdrop, friendship in need.

M. K.:—It is not natural for your child to be afraid of the dark. He should never be allowed to believe that darkness holds special terrors. Permit no one to frighten him by playing "ghost." Permit no one to tell him stories of the gruesome or the supernatural. But in spite of all your precautions, if any one of the household shows a dread of the dark, this dread is likely to be noticed by the child, and you know example is stronger than precept.

T. H.:—It is not good form to use any ink except blue black for correspondence. Seals on letters are en-

tirely proper if they are quite small and nicely applied. 2. No answer is required to a wedding announcement. 3. R.:—A vegetarian diet includes all the good grains, nuts, eggs, cheese, milk, cream and honey, besides all the fresh and dried fruits. This does not sound like starvation, does it? Rather like a generous plenty. Three meals a day with no "piecing" is the diet rule. Plenty of fresh, pure water, except with meals. Coffee and tea are allowed, but it is better to do without them.

R. P.:—The author of the poem "Green Things Growing" is Dinah Maria Mulock Craik (1826-1887). She was an English novelist, best known under the name of "Miss Mulock" and as the author of "John Halifax, Gentleman."

W. M.:—Here is a set of rules which every boy and girl would do well to follow, and which I hope will answer your requirements:

- Be brave. Courage is the noblest of all gifts.
- Be silent while your elders are speaking, and otherwise show them deference.
- Obedience is the first duty of every boy and girl.
- Be clean. Both yourself and the place you live in.
- Understand and respect your body. It is the temple of the Spirit.
- Be the friend of all harmless wild life. Conserve the woods and flowers, and especially be ready to fight wild fire in forest or in town.
- Word of honor is sacred.
- Play fair. Foul play is treachery.
- Be reverent. Worship the Great Spirit and respect all worship of Him by others.
- Be kind. Do at least one act of un-bargaining service every day.
- Be helpful. Do your share of the work.
- Be joyful. Seek the joy of being alive.

THE PLAY LIFE OF THE CHILD

Play Develops the Physical Life of Our Young People and Stimulates Their Mental and Spiritual Faculties.

The play life of a child is important from the standpoint of its physical, mental and spiritual development, and the parent who neglects to understand what the play instinct means and to help to direct it into worthwhile channels is more foolish than the man who went away to seek his fortune in the oil fields while his own farm was underlaid with the rich fluid and his cattle had long refused to drink of the brook that flowed through it because of its taste in the water.

Play Means Health

It is necessary that the young child should play and kick and crow to develop its muscles and lungs and to help burn up the large quantity of bodybuilding material which must be taken in during earlier years. It is noticeable that animals play in just the right way which will make them strong for their particular mode of life. The cat runs and jumps after the ball, chases its own tail and develops a faculty for quickness in order that it may catch birds and mice, and the young deer leaps and jumps and runs and makes its muscles strong.

The child that does not play is a sick child. Through play the mind is stimulated, for children love best of all to improvise their surroundings. A set of blocks makes a first-class train of cars, a few bits of broken crockery a splendid set of dishes, or a garment from the attic a robe for the princess. It is perfectly natural for children to fill out their lives with imaginings, and it is a happy faculty which makes them contented with what they have, develops their resourcefulness and tests their ingenuity.

Trains Character

Some toys are not popular with children. Most little people would rather have a crude toy which they can operate than a mechanical contrivance which leaves nothing to be done but to watch it. Children instinctively like the toy which is natural and not grotesque. The writer's little boy while still in dresses would go into the house of a neighbor and immediately turn a standing doll with its face to the wall. The doll was made on a bottle and had a head covered with black stocking, woolly hair and shoe-button eyes. When asked why he always turned its face to the wall, he replied, "I ges can't bear the pin eyes of her." The shoebutton eyes were like the black hatpin heads with which he was familiar, and he recognized that the "pin eyes" were not natural.

The spiritual side of the play life is not to be overlooked, for as soon as the child is old enough to have companions the elements of fair play, of honesty and of doing as you would be done by appear. Even young children are often heard to boast absurdly in their play, and here moderation of play, speech, honesty and kindness can be taught.

It has been said that we never really know persons, even although we work with them, until we have played with them. This is true, because work may be performed according to somebody else's ideas, but our play life expresses our own ideals in regard to amusement and enjoyment.

Take an Interest

If parents would keep the confidence of their children and understand them, they must take an interest in their play. This does not mean that it is enough to watch them play. We must get their viewpoint, understand what it means to them and, if possible, play with them sometimes.

At one time there was no place in crowded city life for children. Now the community has recognized that they have some rights and play-grounds with kindly supervisors are growing more and more numerous. In the country there is the beginning of development along the same lines. The nation will be richer in years to come for thus providing for the play life of its children.—E. G. W.

Health

Whooping Cough.

Whooping cough, while in the main a disease of childhood, is not to be lightly regarded as a simple disease or as something to be "had early and gotten over with."

It is a serious disease and very contagious, especially among children. In this country thousands of children die every year from whooping cough and its complications. Adults sometimes get it, and when they do it is extremely serious.

Every mother of young children should be familiar with the symptoms so that she may not only give prompt attention to the ailing child but also take immediate steps to keep the disease from spreading to others.

In the beginning of the disease the child shows no signs of an ordinary cold. There is running of the nose, slight fever and a dry cough. The eyes are bloodshot. After a week the cough becomes worse instead of better, and the coughing fits develop. The child now coughs many times in succession. It becomes pale, and when it draws in its breath there occurs the sharp, shrill noise that is known as the "whoop." The "whoop," however, is not always present, but even in cases where it is not, great care must be taken of the sick child.

In attacks of the disease that might be classed as mild a child will have four or five coughing fits daily, while in severe cases there will be many more.

Carelessness is largely responsible for the great spread of the disease, and during the wet, cold months of early spring mothers should be on their guard against it. Unless a child sick with whooping cough is isolated the disease will spread like wildfire among its playmates.

If your child has the disease you must not allow it to play with other children. Even after the "whoop" has stopped there is danger of spreading the disease to others. If, on the other hand, you hear of some other child in the neighborhood who has the disease, take every precaution to protect your child.

All matter that comes from the mouth and nose during the time a child is sick should be received in pieces of old linen or rags and burned. Separate cups, glasses, plates and knives, forks and spoons should be kept for the sick child.

Fresh air at all times is an important part of the treatment and cure of whooping cough. During the day, if the weather is fine, see that the ailing child plays in the open air, but alone, of course. Night and day keep its bedroom well aired.

The feeding of a child suffering from whooping cough is important and is best carried out under the supervision of a physician. There is frequently vomiting during the disease, with the result that many children rapidly lose weight and strength. This leaves the child in a condition where it is apt to contract tuberculosis or pneumonia—diseases that frequently threaten in the wake of whooping cough.

OUR ENEMY, THE FLY.

Various Ways in Which to Combat The Fly Nuisance.

The best method of combating flies is to prevent their breeding by destroying their breeding places. Thus if flies were excluded from the garbage can, manure pile and privy vault, it would be possible for the community to be free from flies.

It is an easy matter to provide a tight-fitting lid for the garbage can, and almost as easy a matter to render the privy vault fly-proof. However, it is not such an easy matter to exclude flies from the manure pile. It is best to store the manure in a shed that has been made fly-proof by means of screen, or to store it in a tight box. If it is not possible to store the manure in fly-proof places, the manure pile can be treated at intervals of ten days or two weeks during warm weather by means of chemicals. This kills the maggots before they develop into the adult fly.

Powdered hellebore can be secured at any drug store, and it is especially recommended for treating manure heaps. Mix one-half pound of powdered hellebore with ten gallons of water, and mix thoroughly with the manure, especially around the edges of the pile. The above quantity is sufficient for ten cubic feet of manure. The hellebore is very inexpensive, and for a few cents a sufficient quantity can be secured to last through the entire season.

If the breeding places are destroyed but few flies will be found around the house, and the few that do make their appearance can soon be caught by means of fly traps on porches and sticky fly paper indoors.

All windows and doors should be carefully screened. This is very essential in keeping flies out of the house. If it is not possible to secure wire screen, the cloth mosquito bar can be secured at a very moderate cost, and it will last one season.

Interviewer: "What must a man do, doctor, to attain a ripe old age?"

Doctor: "Live."

One of the largest retaining walls in the world has been built at Rangoon, Burma, to prevent a river shifting its channel.

