

Farm Crop Queries

CONDUCTED BY PROF. 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. When writing kindly mention this paper. 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.

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V. B.:—Please give me some suggestion on how to treat celery blight.

Answer:—To treat celery blight prepare a mixture of Bordeaux which is made as follows: Dissolve 4 lbs. quick lime in a wooden container and 4 lbs. copper sulphate in another wooden pail. Empty both of these into 20 gals. of water. Immediately you have made the solution spray it on the celery in a fine spray forcing it down among the leaves as thoroughly as possible. This spraying should begin as soon as the celery is well started after setting in the field and should be kept up at least five to seven times. Do not use the Bordeaux mixture if it has been standing any length of time, but mix up fresh material every time you have to spray.

K. K.:—I would like to know whether I shall sow oats with the alfalfa seed this spring or alfalfa alone.

Answer:—Early oats make very good nurse crop to sow with alfalfa, especially if you are careful not to sow too much seed. I would recommend not more than a bushel to an acre if you are seeding alfalfa at the same time. Barley has been used with exceedingly good results since this crop ripens quickly and is out of the way by the time the young alfalfa is well started.

O. L. B.:—Next spring I wish to sow alfalfa with winter wheat. Would it be advisable after top-dressing with farmyard manure? Would it be advisable to sow lime on the wheat, and what would be the best time to sow alfalfa?

Answer:—If you have not applied lime to the alfalfa ground I would advise that you scatter a fairly heavy dressing early in the spring before the frost goes out. This will sweeten the ground and should assist the growth of the bacteria that are found on the oats and alfalfa. In preparing your ground for the sowing of alfalfa you

might apply a light dressing of farm manure with good purpose, putting it on after the time and before the frost has gone out of the ground, or you can get very good results by a top dressing of fertilizer, scattering it at the rate of about 200 to 300 lbs. per acre as soon as the soil is sufficiently dry in spring for a team to work on it without injuring the growing crop. I would advise you using a mixture analyzing about 2-12-2, that is, 2 per cent. nitrogen, 12 per cent. phosphoric acid and 2 per cent. potash.

M. F.:—I stored a quantity of dry black muck last autumn, and as my horse stable is about two feet from the ground I intend to make a box 3' wide by 1' deep, the whole length of the stable and place this directly under the gutter which is made of 2" plank; the bottom being perforated so as to let the horse urine drain through into the box below which is filled with dry muck, and will be emptied and refilled as required. Please let me know what chemical I should use in the muck to make a good fertilizer for potatoes, and other garden vegetables. Would it do to mix the chemical with the muck while it was dry before it got saturated?

Answer: I would advise that you add to the muck soil in question about 5 lbs. of acid phosphate, mixing it with the muck before you put it in the box. This will help catch and hold nitrogen from the manure. When preparing this for application to your potato field, for every ton of the mixture that you have taken out of the box add about 150 lbs. of muriate of potash. This should make a fairly well balanced fertilizer for potatoes. You should make a fairly heavy application of this to the potato soil, putting at least a double handful in each potato hill. However, see that this is mixed well with the soil before dropping the pieces of seed potatoes.

Poultry

To stop roup start immediately to increase the scratch feed. If possible, feed our skim milk, or buttermilk in some form.

Give them a dose of Epsom salts at once, at the rate of about one pound per 100 birds. Feed it mixed in a wet mash about two hours before they go to roost. You may have to keep other feed away for about six hours before feeding the salts, so they will be hungry enough to eat plenty. The next day start feeding ordinary ground sulphur or flowers of sulphur at the rate of one pound per 400 birds, in a wet mash, every day for ten days. Then give another dose of Epsom salts. If the birds are not by this time pretty well over their roup, repeat the treatment at the end of ten days again.

This saves me lots of time in estimating acreages. When a field is in corn I can count rows and tell about where I am, but in grain or hay I'm lost. Work this out on your farm.

Three Posts to an Acre.

When I built my lane fence, which is about the whole length of the farm, I wondered why I couldn't figure out some way to tell where an acre was located by the distance across the end. Figuring the exact amount of land in farming, showed that I could set my posts so that three of them would just make an acre.

To reflect back into human lines the last image of their living selves is the work of a master.

Dormant spraying is in order in the orchard, especially if you are troubled with scale insects.

Early—that's the word. Write for seed catalogs early, make your choice early, then order early. Plan for a hotbed and have early vegetables.

Only under urgent conditions should bee colonies be opened during the middle of winter or when it is very cold, since undue disturbance may start brood rearing, which would be very undesirable. Brood rearing should not start until spring nectar is available.

Like sugar, butter, cheese, etc., honey is a highly concentrated food stuff, but unlike the others, it is pre-digested.

Home economists figure that the farm kitchen ought to be at least 175 square feet in area. It should be well lighted, well painted, and have a lot of table space.

For Home and Country

Their Kindness Meant So Much

The sympathy of the Institutes of old Ontario with the fire sufferers of the North was deep and expressed itself in prompt and practical ways in the supply of food, clothing, materials for building and in money. In the late autumn a number of Branches sent cheques to the Department, sufficient in amount to give a small cash Christmas gift to each member of a Northern Ontario Branch who was spending the winter in the fire-swept region.

The accompanying letters, only a few of many sent to the Superintendent, indicate something of the appreciation with which this thoughtfulness on the part of their sister Institutes was received:

Charlton Women's Institute: (1) "Please accept my thanks for the very acceptable Christmas gift. Our Institute members in old Ontario have proved to be real helpers in every way and we are indebted to them for many useful things, also clothing, etc., and we fully appreciate their kindness, and I hope if ever it is our turn to help, we shall not be found far behind in doing our share."

Charlton: (2) "I was agreeably surprised to receive the letter enclosing postal note \$2.00 from old Ontario Institutes. I'm sure I am very thankful

to them, as we lost everything in the recent fire. The Institute is doing wonderful work."

Hanbury Women's Institute: "Allow me to acknowledge the receipt of three dollars, which I received last night. It is a welcome gift indeed, as we lost everything in the recent fire."

Whitewood Grove Women's Institute: "I received the letter containing postal note for three dollars (\$3.00) and many thanks for same—which is very acceptable at this time. It is very kind of the different Institutes to think of us in our loss, and we have had help from a number of the Branches, which we appreciated."

Heaslip Women's Institute: "Your letter of the 20th and postal note received. Please accept my thanks and appreciation for your kindness. Wishing you and all members a bright and prosperous New Year."

Thornloe Women's Institute: "I am dropping a few lines to thank you many times for the money order for \$3.00 you sent me. I am sure I appreciate this kindness very much. It means so much to me after losing so much in the great fire. Some of the Institutes certainly have done well to help us out and we all feel very grateful to them, and it makes us feel we want to do more for the Institute."

The Sunday School Lesson

FEBRUARY 11

The Spirit of Prayer, Luke 18. Golden Text—The sacrifices of God are a broken spirit: A broken and a contrite heart, O God, thou wilt not despise.—Ps. 51: 17.

Lesson Setting—The subject of our lesson to-day is that of prayer. The whole life of Jesus was an exemplification of the place of prayer in life. How often we see Jesus standing in the quietness of the mountain top to refresh himself by communion with God. Prayer was not for him a duty. It was a necessity. It was a real part of his life. Prayer was not for him an effort to bend the will of the Father to his will. It was a bending of his will to God's will. There are two parables on prayer in our lesson to-day. These parables deal with some aspects of prayer, not with the whole subject. After all a parable is a story meant to tell us a little about a great thing. Jesus does not explain "why" we pray but rather "how" we should pray.

I. Praying With Persistence, 1-8.

Vs. 1, 2. That men ought always to pray, not to faint. Moffatt translates about the need of always praying and never losing heart. It is not unending prayer that Jesus urges. A long prayer may be a very faint-hearted prayer. It is a persistent spirit rather than persistent utterance that Jesus commends. The opposition is not between praying always and praying sometimes, but between hopeful praying and hopeless silence. A judge, which feared not God, neither regarded man; a man holding a most responsible position, yet lacking absolutely the qualifications for that position. He repudiates God's moral law and man's claim for justice. His position and power were used wholly in his own interest. A hard man to move.

Vs. 3-5. There was a widow; a poor and friendless woman and therefore one who would have enlisted the sympathy of a just judge. He would not for a while; she could offer no bribe or corresponding gain. But afterward, because she did not desist in her entreaties. The justice of her cause would not let her be discouraged by the unjustness of the judge. I will avenge her. The persistence of the woman made her an annoyance. It is his own comfort he consults. Let . . . she weary me. Let she wear me out (cover me with bruises).

Vs. 7, 8. Shall not God avenge his own elect. If persistence wears down the hard heart of the unjust judge, what effort will the persistent cry of God's children have on the loving heart of the Father. If the judge's delay did not discourage the poor woman, why should delay discourage the elect of God. Though he hear long . . . he will avenge them speedily. If justice has its long delays, so has love. God cannot answer immediately always. We must wait long sometimes, but when the proper time arrives the answer will be as speedy (sudden) as the flash of lightning. God's delays are as loving as his answers. Therefore they should not make prayer to be faint. Shall he find faith. When the time is ripe for his coming, will it find God's elect praying in faith or waiting without hope.

II. Praying With Pride, 9-11.

V. 9. Unto certain . . . as trusted in themselves. From the parable of persistent hopefulness in prayer, Jesus passes to speak a parable showing the true humility of prayer. The spiritual condition of those for whom Jesus spoke the parable was that of self-confidence and self-satisfaction. And despised others; an inevitable result of self-admiration and complacency.

Vs. 10, 11. Two men . . . a Pharisee . . . a publican, one man the typical religious man of the day. The other belonging to a class noted for their

unscrupulous dealings in raising the taxes. Going to the Temple was a habit with the Pharisee. Some stress of soul had driven the publican. Prayed thus with himself. The prayer is a soliloquy of the Pharisee with himself, meant however to be overheard by others. The Temple brings no thought of God, but only a satisfied remembrance of himself. I am not as other men are. The Pharisee measures the difference between himself and others, not between himself and God. True prayer measures the gulf between God and one's own soul. Extortioners, unjust, adulterers. The Pharisee makes a dark background out of the lives of others, against which his own excellencies shine out radiantly. True prayer never makes religious capital and advantage out of the sins of others.

True prayer asks God to forgive and forget our sins rather than to remember our excellencies.

III. Praying With Humility, 12-14.

Vs. 12-14. Publican, standing afar off. The Pharisee stands apart in proud and confident isolation. The publican stands apart in shame and contrition. The Pharisee stands apart to be seen. The publican stands apart to be hidden. Both betray their spirit in their attitude and bearing. Would not lift up . . . his eyes; not because he is ashamed in the presence of the Pharisee, but because he realizes that he is in the presence of God. Prayer kept the Pharisee apart from God and man. Prayer brought the publican to the feet of God. God be merciful to me a sinner. The publican has not only the right attitude and the right spirit of prayer, but also the right content of prayer. He confesses his utter sinfulness and unworthiness. He expresses his need of and desire for mercy. He utters no defence or praise of himself, and no condemnation of others. This man went down . . . justified. The Pharisee did not find God because he did not seek him. The publican went to his home with complete pardon and with a sense of that pardon. The Pharisee went to his home the same proud, unsympathetic, unloving soul. The publican went to his home a new man.

Application.

The story of the man borrowing a loaf at midnight (Luke 11: 5-8), and the story in this lesson, of the unjust judge, go together; and taken together they make it very evident that our Lord put great importance on persistent prayer. "Importunity" is the word in Luke 11: 8. Dr. Moffatt translates it, "He will give you whatever you want, because you persist." Again, as illustrating how emphatic is Jesus on this matter, Dr. Adeney, in the Century Bible, says that "ought" in Luke 18: 1 is literally "must"—that is to say, "It is absolutely necessary to pray, and that perseveringly—under all circumstances, never abandoning prayer in despair."

Christ follows the story with the question, "Howbeit when the son of man cometh, shall he find faith on the earth?" Shall he find the faith that is requisite for this persistent prayer? If Christ stressed persistence in prayer, how much oftener he spoke of faith! "According to your faith, be it unto you." Why are ye fearful, O ye of little faith? "If ye have faith as a grain of mustard seed, ye shall say unto this mountain, remove hence to yonder place; and it shall remove; and nothing shall be impossible unto you." The power of faith, why, Jesus declares it equal to anything. It can do the seemingly impossible.

Fundamental Principles of Co-Operative Marketing

By R. D. Colquhoun, B.S.A., Professor of Marketing Economics, Ontario Agricultural College.

ARTICLE V.

A co-operative marketing association must have a contract or marketing agreement with its members by which the members agree to deliver all their product, of the kind handled by the association, to the association for marketing. There is nothing new in this idea. It has been in operation in Denmark for over 40 years. In California the contract idea has been in force for over 20 years. All the great co-operatives of that state and many of the associations that have, within the last few years, sprung up in other states and in Canada, have binding contracts with their members.

It is not generally realized how extensively the contract idea has taken hold. Suffice it to say then, that in 1922, according to conservative estimates, not less than a billion dollars (\$1,000,000,000) worth of farm products were marketed by the co-operatives of Canada and the United States under definite contracts with their members.

There are two general types of contracts in common use. The first is known as the term contract. It runs for a definite number of years. The length of time covered varies, but five years seems to be the most popular term. Some are for seven years. One, signed by the raisin growers of California, runs for 14 years. The method is to sign up the members for a definite term at the end of which all the contracts expire. A renewal campaign is then put on and the members signed up for another definite period.

The other type of contract is called the self-renewing type. It is a contract which continues in force indefinitely but which may be cancelled by

either the association or the member under certain specified conditions. Cancellation can be made only at the end of the crop year after due notice has been given within specified dates.

The contract of the Ontario Co-operative Dairy Products Limited, a new organization for the co-operative selling of Ontario cheese, has a contract which is a combination of these two types. It is a term contract to begin with, having no withdrawal privileges during the first three years. After that it becomes a self-renewing contract and may be cancelled at the end of 1925, or of any year thereafter, by giving notice between December 1 and December 15.

There are many good reasons for having a contract. A few will be briefly enumerated.

1. It ensures volume of business. No co-operative marketing association should begin business until it is assured of a sufficient volume of business to ensure economical operation. In the organization period a definite objective should be set and unless the objective is attained the organization should not begin operations. Under the contract system it is possible to definitely ascertain when the minimum volume which has been set as the objective has been signed up. This goes a long way toward assuring the success of the undertaking.

2. The contract holds the organization together. Those who oppose co-operative marketing always try to incite the farmers against signing the contract. They know that it destroys their greatest weapon in fighting co-operative marketing. Their favorite plan is to split the farmers up by going into isolated districts and offer-

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ing higher prices than the market warrants in order to steal away the members' patronage. This weakens the association and carried far enough breaks it up. Then they have the field to themselves again and can soon make up any losses they have sustained. With the marketing agreement signed by all the members outsiders have no opportunity for breaking up the association in this manner. The members in each district need have no fear in staying by their association for they know that the members in all the other districts having signed the same agreement, are also standing by it. The marketing contract is really an agreement between the members that they will stick together and give their association a chance to show what it can do.

3. A better manager can be secured. With the assurance of a large volume to handle over a period of years more capable men can be interested and their services obtained.

4. With an assured and known volume to handle the management can negotiate sales knowing that the product will come forward to fill the orders. This greatly strengthens the position of the association in the market. If there is danger that the market will not absorb the volume handled at good prices the situation can be foreseen and the market extended by judicious advertising and other means.

5. Great economies can be effected in handling the product. Under competitive methods of marketing a great deal of effort and money is expended in drumming up business. This is one of the greatest sources of expense. With the product contracted by the members the management of a co-operative marketing association is saved all this outlay. The volume comes forward under the terms of the contract and the management can devote all its energy to efficiently marketing the product.

Other advantages of the contract system could be enumerated but these must suffice. It is a common saying that the farmers will not stick together. The co-operatives which have adopted the contract have no trouble on this score. A definite and binding contract is a feature of all the large and permanently successful co-operative marketing associations on this continent and it is recognized by all authorities as a fundamental to the success of a co-operative marketing enterprise.

It pays to protect sheep from winter winds and rains. Any rough, inexpensive shelter will serve.

A Million Backaches.

One of the sad mistakes that this Dominion of ours has made, is in allowing the idea to persist that a kitchen sink should be just so high, regardless of the length of mother's mortal frame.

It may be too much to say that all the ills of our beloved country can be traced to the fact that the wash-tubs are only twenty-seven inches from the floor, whereas they ought to be thirty inches because mother stands five feet four. But we do know that lawyers and politicians are all the time throwing fits over questions that are absolutely trivial and childish compared to this.

If mother is so tall, tubs, sink, table, stove, and ironing-board ought to be so high from the floor. If she is taller, they must be higher. Even if, by some miracle, she were to be four feet ten one day and five feet eight the next, every one of those blessed things ought to be changed every time she did.

That is what we think about the real importance of backaches.

Dehorning Calves.

Many are familiar with the simple process of preventing the growth of horns on calves. Moisten the spot where the horn is to grow, and rub it with a piece of caustic potash till it looks red. That is all. An agricultural paper we read recently says: "Rub till the skin is broken and it begins to bleed." This is not necessary. As soon as the place begins to look even slightly irritated it need be rubbed no longer. It is best to do this before the calf is two weeks old. Only a little moistening with the finger, dipped in water, as all that is required.

What teeth will you wear in 1930—yours or some store's? It pays to care, and to take care.

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