Farm Crop Queries

Henry G. Bell.

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 potatoes 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 hundreds 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 plantfood 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 foregoing 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 potatoes before planting to prevent top blight.

Answer:—No pre-planting treatment can be given to potatoes 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 plantfood 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.

Poultry

Pointers on Marketing.

Most of the market poultry sold is marketed in about one-sixth of the year, that is, in the autumn. As a result prices suddenly fall when farmers are about ready to sell. The congestion means that part of it must be put into cold storage, and produce once stored does not bring so high a price as the fresh quality. This means lowered prices for the farmer.

The remedy lies with the producer. He should distribute his produce over more of the twelve months than he does. To do this requires different methods of handling his poultry than he has practised in the past. For instance, instead of keeping the spring chicks all summer, some of them might be marketed throughout the season as broilers. Broilers bring two or three times as much per pound in May and early June as they would bring as roaasters in the fall.

Broilers are chickens weighing under 2½ pounds. The best way to feed broilers is to give a palatable mash in a clean yard, mix the mash with milk if possible, give some green food and keep everything clean and the chicks free from lice.

When convenient, bleeding and dry plucking are advised before selling, though, if the weather is warm and local killing facilities not good, it may pay to ship alive.

Hens that have completed their second laying winter and have passed through the breeding season, should be marketed as soon as the breeding season is over rather than be kept until the fall.

Hens in June or July bring from 50 to 100 per cent. more than they do in October because they are then the only roasters on the market.

Green ducks, that is, ducks that have just completed their first coat of feathers, should be marketed early rather than be kept until fall. The Experimental Farm at Ottawa reports that 65 young ducks sold at 10½ weeks of age brought on the local market about 200 per cent. more than it cost to feed them, or in other words they cost for feed $20 and at 10½ weeks of age they brought $60. Similar ducks that were sold in the fall did not pay for the cost of feed.

Market in June.

All roosters, old hens, early broilers, green ducks.

During the first week in June, kill off, dispose of or remove from the flock, the male birds after the breeding season. Their presence in the flock after this date causes a loss of a million dollars a year to Canadian farmers through the sale of partially incubated and bad eggs in the produce which is marketed. All old hens should also be marketed at this date.

Cuts Labor in Half

Do you first disinfect, and then go over all surfaces again 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
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Carbola is a mineral pigment combined with a germicide 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. Will not flake, blister or peel off nor spoil by standing. No disagreeable odor. 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.

Don't give the breeding mare corn.

A properly fitted collar will not rub any part of the shoulder. Collars should fit snugly on top and on the sides.

Music in the Home

The Educational Value of Music—The Power of Modern Musical Instruments to Reproduce and Intrepret 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, who 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.

Inasmuch as it would be of priceless value to have such recordings at this time, present-day pupils and teachers will find, and some have already found from experience, that the records made by some of our eminent artists of to-day afford possibly unequalled facilities for acquiring certain phases of musical knowledge. The teacher of musical history when reviewing epochs and events, giving biographical sketches of composers and classifying the different schools and forms of music, will find the player piano and phonograph, or either one, invaluable by demonstrating the record suitable for the occasion. When studying tonal effects of the different instruments, the phonograph record would indeed be very helpful and highly interesting.

While perhaps being efficient in the art of voice production there are many teachers who are far from being masters of interpretation, especially in some of the grand opera arias, for the reason that they have not had the opportunity of witnessing performances by artists of the highest rank. In many vocal studios is the phonograph finding itself useful as a coach, as also it is in the homes of many pupils.

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.

Bedtime Stories

The Story of Rumble and Grumble.

Rumble and Grumble were the sons of the Stubbletail Bears, who occupied a comfortable cave in the Yellowstone Reservation. Rumble was stronger on voice than on his legs, and Grumble was stronger on his legs than on his voice, but, anyway, they got along most amicably and loved each other as only bear brothers can.

One day Rumble and Grumble slipped away from their parents, who were industriously picking berries, and started off by themselves. "We will be perfectly safe," said Rumble, "for, if anything happens, I have only to use my powerful voice and you your powerful legs, and everything will be all right. "Quite so!" growled Grumble. They were rather well-spoken young bears, as you will notice from their speech, coming in contact with tourists, as they did!

The sun was hot and the trail taken by the two little bear cubs very rough and stony. It was not long before Rumble said his legs were going back on him, which is another way of saying he was tired. Grumble said never mind, that his voice was still hearty, and while they were discussing it a twist in the trail showed them a little mountain burro, fast asleep, with his head and tail drooping down. "Why should you not ride, as the two-legged visitors do, dear brother?" suggested Grumble, wiggling his ears gently. "I will lead this foolish beast and we can thus get upon our journey!"

Rumble swung bashfully to and fro, then at Grumble's suggestion climbed into a tree and dropped plump upon the burro's back. Open flew the donkey's eyes, up flew his ears. The two brothers, seeing that a crisis was at hand, did that which each did best; that is to say, Rumble used his voice and Grumble his legs. The roar of the little cub so discomfited the burro that he also used his legs, and as Grumble was quite near, it ended disastrously for him. Over the edge of the precipice he bowled, bump! bump! bump! And if he had not caught in the crotch of a tree jutting out about half way to the bottom—well, he would have been nothing but a little bearskin rug, I am afraid.

Rumble was faring no better. The burro was still using his legs, skeeting down the trail at such a rate that poor Rumble was shaken almost to a jelly. Kerbump! kerflump! he pounded up and down upon the worn old saddle, clinging for dear life and with the senses quite jolted out of him. But suddenly he remembered, and, opening his mouth, screamed and growled and roared for all he was worth. One particularly shrill screech so alarmed the burro that he stopped with a suddenness that sent Rumble flying over his head. He landed with an unpleasant thud, and the burro, giving him one outraged white-eyed look of terror, ran clear out of the story.

For all I know, Rumble stayed there till rescued by his doting parents or by Grumble, whose legs would surely help him out of his difficulty. I only know that they were somehow restored to their family, because I saw them playing roly-poly-slide-down-the-hill in front of Mrs. John Stubbletail's cave the other morning.

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.:—1. 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; goldenrod, 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 grucsome 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 that precept.

T. H.:—1. It is not good form to use any ink except blue black for correspondence. Seals on letters are entirely proper if they are quite small and nicely applied. 2. No answer is required to a wedding announcement.

L. 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.

Obey. 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 unbargaining service every day.

Be helpful. Do your share of the work.

Be joyful. Seek the joy of being alive.

The Sunday School

INTERNATIONAL LESSON
MAY 27.

Lesson IX.—The Holy Spirit and His Work—John 15. 26 to 16. 14.
Golden Text—John 14. 26

Verse 26. Paraclete (margin)—We seem driven to borrow the Greek word (as in the case of baptize, and a few others) to express what no one English word will render. Comforter is grammatically wrong—the form is passive—and far too narrow. Advocate (margin) suits 1 John 2. 1 exactly, and comes nearer than other terms here, but is hardly wide enough. The central point is that the Paraclete, "called in" (this is what the word means), to help us, performs the same part as the other Paraclete, who has gone to be our Representative "with the Father." It is actually impossible to mention any function assigned in Scripture to the Holy Spirit which is not somewhere else assigned to the glorified Christ. Representative fairly joins this passage with that in the Epistle. I will send—That the Spirit "proceedeth from the Father and the Son" is one of the most palpable facts in New Testament theology. What the Eastern church meant when it insisted on dropping from the creed the Filisque, is an unsolved mystery.

27. Bear ye also witness (margin): this seems better. It is significant that men are bidden to perform the same function as the Divine Spirit, of course by his indwelling strength. There is a similar association in Acts 18. 28.

7. Go away—From visible fellowship: "I am with you all the days" remains true. The Father to whom he goes is ever infinitely near. He means that his spiritual presence is better for them than his bodily: it becomes a more intimate part of the man. The disciples would not have learnt independence and initiative: they would have always waited for express commands. The substitution of his spiritual Representative brought the needful self-reliance: the true self is only complete when God is interfused deeply.

8. Convict—The "world"—which in John nearly always means the world as it is, in rebellion—fights against the true view of all these great subjects. The inspired disciples will reduce it to helpless silence: it cannot "withstand the wisdom and the Spirit by which" they speak (Acts 6. 10).

9. Sin, as normally in the New Testament, is the failure to accept a positive duty, not the mere doing of something wrong. With us omission is treated lightly as against commission: and that is why we have failed so grievously in our practical doctrine of sin. The work of God—for all those to whom the Gospel has come—is to believe on the Sent of God (John 6. 29). For this saving faith carries with it inseparably the fulfilment of all God's law.

10. The world condemned Jesus as a blasphemer and "unrighteous"; one recalls Plato's great demonstration that if ever an ideally righteous man appeared he would be counted as perfectly unrighteous and martyred as such. His disappearance from men's eyes, and enthronement at God's right hand—evidenced by the resurrection, and the mighty works of his Spirit in his disciples, finally "justified" him.

11. Judged—As usual, of a condemnatory judgment. The "world" has a "ruler" of its own choosing: compare Luke 4. 6.

12. There have been many bad guesses as to the field in which these truths lie. Surely it must be mainly in the meeting of his death, which they could not bear until the incredible was a supreme fact.

13. Paul's interpretation of Calvary is the greatest of all instances; see Gal. 1. 12. From himself, for each Person in the Godhead speaks for the Triune.

14. Glorify — Interpret, reveal, when used of God or Christ, who only need knowing to be glorious.

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.

The cows should be left in the pasture only a few hours the first day.

For several days they should be left on green feed only a half day.

Put the cows on the low ground where the coarse grass springs up and grows rankly at the start. If this grass is left uncropped it becomes tough and will not be eaten at all.

Calves can be raised perfectly on skimmed milk.

Pumpkins made excellent autumn feed for dairy cows, and the labor required in production is quite limited in proportion to the value of the crop.