

# 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.



Henry G. Bell.

**Question—F. A. B.:**—Can you tell me the cause of scabby potatoes and how to treat ground so as to prevent potatoes from becoming scabby? My potatoes seem to grow fairly well, but are always very scabby.

**Answer:**—Scab on potatoes is a disease caused by a parasitic fungus. When once it gets into the soil it remains there for some time. Potatoes should be grown in a rotation and should be kept off soil known to be infected with scab. It is not advisable to use wood ashes or lime on ground to be put to potatoes, as they make conditions right for the development of the scab. Fresh manure tends to produce suitable conditions for growth of scab.

If potatoes are planted on clean ground and treated with either formalin or corrosive sublimate at a cost of \$1.00 to \$1.50 per acre, no scabby potatoes will be present. The formalin treatment may be used, but we prefer the corrosive sublimate treatment, since it controls a number of other diseases besides scab. It is as follows: Dissolve four ounces of corrosive sublimate (purchased at any drug store) in 30 gallons of water. Soak the seed potatoes one and one-half hours before cutting. It is advisable to dissolve the corrosive sublimate in one or two gallons water and add sufficient to make up 30 gallons. This had best be done two weeks before planting and before potatoes sprout. The mixture can be used but four times, after which it should be thrown away, and a new lot made up. It should be prepared in wooden vessels.

It destroys iron or tin. Since it is a deadly poison it should be kept away from stock and children. Do not feed any left-over potatoes that have been treated.

**Question—E. L. M.:**—How much corn for silage should be sown to the acre, and how far apart should the rows be?

Will corn in drills produce more silage to the acre than if sown in hills?

Which is considered the best method of seeding?

Has the corn planter any decided advantage over the ordinary seeder?

**Answer:**—The rate of planting corn for ensilage depends largely on the fertility of the soil. Plant closer on rich than on poor soil. The rows should be planted at whatever distance is convenient for cultivation, usually not closer than 36 inches. Corn can be planted closer for ensilage than if desiring for husking. If the ground is fairly rich, drop the seed from 8 to 10 inches apart in rows. If much corn is desired in the ensilage, it should be planted farther apart than if forage is the main consideration. More ensilage will be produced in drills than in hills. Unless the ground is likely to be extremely weedy, we would advise drilling for ensilage.

The ordinary corn drill is the best machine to use for seeding, especially when the corn drilled. I am not quite certain just what is meant by "the ordinary seeder," but if a "job" or hand planter is meant, one important advantage the drill has is that the corn can all be planted at a uniform depth.

## Poultry

### HOW TO SET A HEN.

As the time approaches for the hen to become broody or set, if care is taken to look into the nest it will be seen that there are a few soft, downy feathers being left there by the hen; also the hen stays longer on the nest when laying at this time, and on being approached will quite likely remain on the nest, making a clucking noise, ruffling her feathers and pecking at the intruder. When it is noted that a hen sits on the nest from two to three nights in succession, and that most of the feathers are gone from her breast, which should feel hot to the hand, she is ready to be transferred to a nest which had been prepared for her beforehand. The normal temperature of a hen is from 106 to 107 degrees F., which varies slightly during incubation.

Dust the hen thoroughly with insect powder, and in applying the powder hold the hen by the feet, the head down, working the powder well into the feathers, giving special attention to regions around the vent and under the wings. The powder should also be sprinkled in the nest.

The nest should be in some quiet, out of the way place, where the setting hen will not be disturbed. Move her from the regular laying nest at night and handle her carefully in doing so. Put a china egg or two in the nest where she is to set, and place a board over the opening so that she cannot get off. Toward the evening of the second day quietly go in where she is setting, leave some feed and water, remove the board from the front or top of the nest and let the hen come out when she is ready. Should she return to the nest after feeding remove the china egg or eggs and put under those that are to be incubated. If the nests are slightly darkened the hens are less likely to become restless. At hatching time they should be confined and not disturbed until the hatch is completed, unless they become restless, when it may be best to remove the chicks that are hatched first. In cool weather it is best not to put more than ten eggs under a hen, while later in the spring one can put twelve or fifteen, according to the size of the hen.

Among the advantages of keeping pure bred fowls as compared with mongrels are: better results in breeding; more opportunities to dispose of eggs for setting, at high prices; uniformity in the eggs and a better appearance of the flock.

Sunlight, ventilation, fresh air; these are the prime essentials to success with incubator-hatched chicks. Fowls may survive for a generation or two without full provision for all this, but they gradually lose vitality and eventually die off.

Chicks should not be fed before 24 hours have elapsed after hatching, but fine sand should be available as soon as possible. This helps digestion.

The remains of the yolks in the newly-hatched chick will keep the bird alive without other food for over two days.

## Hogs

Farmers who intelligently feed and care for their pregnant sows, so as not to overload them with fat, but instead give them feeds for the development of bone and muscle, are on the right road toward the production of strong, healthy litters. Their pre-pregnancy programme, however, does not end here.

Two weeks before farrowing, the sow should be put into a farrowing pen so that she will become acquainted and contented in her new quarters. The farrowing pen should be dry and free from drafts. Provide the pen with a guard rail made of 2 x 4 inch planks set eight inches from the wall and eight inches from the floor to prevent the sow from crushing the pigs against the wall. Use only a small quantity of bedding; leaves or straw are preferable. See that the sow has plenty of fresh water.

It pays to keep the sow quiet. Assistance at the time of farrowing should be at hand if needed, but the sow need not be helped if she is getting along well. In cold weather put the newly born pigs in a well warmed basket, and after farrowing is over the pigs should be placed with the sow, care being taken that each one gets to a teat. When the afterbirth is passed, it should be removed from the pen.

After farrowing the sow should have nothing but water and a little thin slop for the first day. The feeding for the first three or four days should be light, and the time consumed in getting the sow on full feed should be from a week to ten days, depending on the condition of the sow and the size and thrift of the litter. It takes plenty of sow's milk to make healthy growing pigs. If the pigs begin to scour, feed the sow less and give her plenty of strong lime-water.

It is very necessary that the little pigs have plenty of exercise and all the sunlight that can be given them. Do not allow the pigs to run out during a cold rain. If possible, provide green feed or roots. These keep the sow fed and cheapen the ration. Encourage the pigs to eat grain after they are three or four weeks old. Build a creep for them so they can feed alone. At this age feed for bone and muscle. Give them all the skim-milk you can. If skim-milk is not available, pasture in season. In about eight or ten weeks the pigs will have practically weaned themselves.

For young chicks provide lots of light, and warm air, a south exposure, and light, dry soil for scratching. The pens or brooders must be roomy and built so that sunlight will get in. By cleaning these often, chicks are not liable to suffer from lice and other vermin.

One of the chief causes of trouble with chicks is overfeeding. Over-feeding can be noticed at once, for the chicks will lie down a large part of the time. A healthy chick will always scramble into the thick of the crowd when food is offered.

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INTERNATIONAL LESSON  
APRIL 22.

Lesson IV. Jesus Anointed at Bethany—John 12. 1-11. Golden Text—Mark 14. 8.

Verse 1. Six days—Counting Passover and the day of the journey: we should say "five." It was Sunday—that is, Saturday evening—when he arrived, and sat down to the evening meal. Bethany—Mark 14. 3 suggests that he did not stay in Martha's house; the little party was at Simon, the Leper's, no doubt one of the Lord's grateful healed ones. A further hint that he did not stay there may perhaps be seen in Mark 11. 12: imagine Martha letting him go away hungry in the morning! The reason would be that his enemies would know where to seize him, and he meant they should see it till the eve of the Feast.

2. Martha served—It was Martha's way of working out a love as deep as Mary's, and the best way, until Jesus himself expressed his own preference (Luke 10. 42).

3. Mary—Mark does not identify the woman: it is suggestive that he records the words that make her dear immortal (Mark 14. 9) and then omits the name! John has one or two traits of the story, about a woman (also unnamed) who was a sinner; an entirely unfounded Latin tradition made her Mary of Magdala. Pure nard—the adjective, like liquid (margin), is a mere guess and neither is convincing, though the margin is less unlikely. The Greek is pistis, which may be a local name, from the place where perfume was made. —Mark says head: this comes from Luke 7. 38. An ingenious but improbable conjecture has been made that the woman was Mary of Bethany, the woman who had been "loved much" because she had been "forgiven greatly." The Evangelists, concerned with more important matters, do not satisfy our curiosity: why the Synoptists name neither woman we cannot tell.

4. Judas—Mark only tells us that "some" said this, and at the end of the episode that Judas went to the high priests with his infamous offer. The suggestion is that the loss of this excellent opportunity finally decided the Wretch. How easily he could have persuaded Mary, that the Lord would prefer to have the money given to the poor! Then he could have gone away with nearly three times as much as the high priests' thirty shekels! Deceiver him up (margin)—Only once (Luke 6. 16) is the word traitor used. The other is perfectly neutral: it is the verb used in Gal. 2. 20 (also makes us think more of the Divine purpose than of the black deed that was overruled to fulfill it).

5. Three hundred shillings—The Roman denarius (Mark 12. 15). Estimated by the size of the silver coin, the assumed total would be some fifty dollars.

6. This light on Judas's character is given us only here. Startling like the rest with a vehement conviction that the Master was the destined King of Israel, Judas imperceptibly came to put that earthly kingdom first, while he put his first with growing personal devotion. Hence he saw what they never saw, that the earthly kingdom was not coming and the discovery wrecked him. Worldliness, thus en-

tering, dragged him down, and this verse shows what he has come to. Box (margin).—The word occurs often in vernacular texts accessible since the Revised Version was published: it means a box for holding small articles. Took away—Beyond question the right rendering.

7. Suffer her—Translate (as the same word in Mark 14. 6), "Let her alone; let her keep it." The phrase in John is a condensation of words which Mark gives more fully. It would be better understood if we placed it after Mary had just begun, supposing the protest to have started as soon as she broke off the neck of the hermetically sealed flask. Both Mark and John make it clear that this is "the day of preparation for burial" (so read). The margin, and the reading adopted in the American Version are alike impossible expedients to cut the knot.

8. Poverty is therefore inevitable—like war—and will be while the world lasts! So some wise folks argue from this passage: anything can be got out of the Bible if one has a mind to try! But a little common sense is not a bad qualification for an interpreter.

9. This account of the common people's coming prepares the way for the Triumphal Entry. The writer sees its significance in their detachment from the Jews, which precipitates action on the part of the alarmed hierarchy.

10. Chief Priests—Read High Priests: it is the same word in the plural. There were several ex-High Priests living, whose deposition by the Romans did not make them any less high priests in Jewish eyes. And there high priests of the families from which the High Priest was always taken. Took counsel—We know nothing of the results: they may well have succeeded.

Another important feature in favor of the milking machine, says a correspondent of The Nor-West Farmer, is that when one comes from the field, tired and hot, it is easy and cool to let the machine do the work, as compared with sitting down among a bunch of cows.

"I raise all my cows and make it a rule never to buy any. It is a lesson I have had to learn." Thus spoke a keeper of a large dairy. He voiced the feelings of many who keep cows for profit, and the practice has more and more taken its place in the dairy and stock raising industry. If the calves with plenty of good food, up to the time of becoming cows, they lose, and it tells upon their quality in the dairy throughout their milking life. Many men who breed high-class stock and raise their calves, lose sight of this very important truth, and fail to secure the mature animals that the breeding ought to produce.

Kindness is a first essential. Let the buyer of a wild, panicky heifer lose no time in courting and winning her. No time in courting and winning her. The young cow has milk she will be ready for milking. She should at St. Paul, "through Christ, who strengtheneth me." Side by side, however, with these tendencies which make for the soul's freedom are other tendencies in our modern life which would bind and



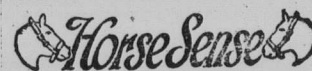
Mothers and daughters of all ages are cordially invited to write to this department. Initials only will be published with each question and its answer as a means of identification, but full name and address must be given in each letter. Write on one side of paper only. Answers will be mailed direct if stamped and addressed envelope is enclosed. Address all correspondence for this department to Mrs. Helen Law, 75 Castled Frank Road Toronto.

R. S. A.—1. Probably the best vine to plant at a brick wall is Boston Ivy. For a wooden wall the old-fashioned Virginia creeper is excellent, also Japanese Kudzu vine, and Trumpet vine. The last named has gorgeous orange and red flowers. For the verandah, there is nothing lovelier than the wistaria. Buy one plant each of the blue and the white and train them to intermingle. They bloom profusely in June. Another splendid flowering vine is the clematis jackmanii, bearing large purple flowers in July. The Japanese clematis has a small white flower and blooms in September. The climbing honeysuckle blooming in July, and the Dutchman's pipe make a good shade. 2. For a hardy white rose choose Frau Karl Druschki; for crimson, Alfred Colomb; for yellow, Persian yellow; for pink, Mrs. John Laing. 3. Shrubs which bloom very early are forsythia or golden bell, and the flowering almond of which there are three varieties, red, pink, and white. The althea has a late season, from July to October, and is a handsome compact shrub attaining eight feet, and comes in four varieties of double flowers, blue, pink, red and white.

B. E.—1. To preserve your spools of sewing silk, make a box two by four by ten inches, making the top serve as a lid. Cover with cretonne or the linen. In each end make two grooves, two inches apart, and insert sticks slightly smaller than the inside of a spool. On these arrange your left-over spools of sewing silk, and whenever a special color is needed you can find it very easily on your spool.

2. Have you tried giving each child a little plot of ground for a garden? Most children take delight in growing flowers and vegetables; it is a health-giving occupation, and is highly recommended as teaching thrift to boys and girls, to say nothing of patriotism in times like these. Of course, they will need oversight and encouragement, and it might be well to offer a prize for the best kept garden. Allow the children to take turns in supplying flowers for the house vases and vegetables for the dinner-table. G. W.—In "Comedies for Young Folk" there is a play entitled "The Beresford Benevolent Society," arranged for seven girls and one boy, which might suit you. "How the story Grew," for eight girls, and also "Aunt Deborah's Fuss Luncheon," for seven girls, would probably answer your purpose.

C. C. M.—1. A wedding veil may be composed of tulle, of net, or of lace. 2. The bride's relatives occupy pews on the left side and those of the central groom on the right side of the central aisle. 3. If your daughter wishes to not utilize them as flower girls? There will be plenty of wild flowers to be had, which they could carry in fancy baskets. In that case they should lead the procession, followed by the ushers, then the bridesmaids, and the maid-of-honor, and lastly the bride with her father. When leaving the church, the flower girls walk first, followed by the bride and bridegroom, then the best man with the maid-of-honor, and the ushers and bridesmaids.



Bone spavin is generally indicated by well-marked lameness for a few steps or further, then going sound until again allowed to stand, a bony enlargement on the front, inside and outside part of hock. Rest, blister with 2 drams each of biniodide of mercury and cantharides mixed with 2 oz. vasoline, repeat in about 2 weeks. If this fails to cure have joint fired and blistered. The tractor fits in with the spring work in a way that is hard for the

horses to do. The horses have spent the winter in comparative idleness and are not in condition to go out and do the hardest kind of work. They will tire, while the machine will not.

More horse power is necessary for the use of larger machinery, which in turn does farm work more thoroughly and at a lower cost per acre or per ton of crop. More horses, heavier horses and horses in better condition all through the working season will lower production cost. Prepare the horses in the early spring for a hard summer's work by regularly exercising and gradually increasing to heavier work.

## THE SOUL'S "I WILL."

The Gospel Addresses Man as Imperial, Able if He Wishes, With the Aid of Divine Grace, To Choose The Better Way.

"I will arise and go to my father." Luke xv. 18.

The emphasis in this sermon is placed on the first two words of the text:—"I will."

The soul's determined and resolute "I will" is the strongest force in the universe outside of God. The works of man on this planet bear abundant witness to the compelling power of the soul's determination. The mighty pyramids, the great cathedrals, the towering skyscrapers, all bear eloquent witness to the mighty power of the human will over the material world—man's puny strength multiplied a thousandfold by modern inventions.

The soul has power likewise over the body. There are secret reservoirs of being unknown and unsuspected, below the level of consciousness, resident in the individual. So speaks the new psychology of the day.

Latent Energy of The Soul. By these dormant powers of the soul the wonders of Christianity are wrought. By the same psychical power, in conjunction with the wise use of drugs and medicaments, the modern physician heals. In the great earthquake at San Francisco numerous persons bedridden for years walked forth from crumbling buildings to safety under the impulse of the new energies of the soul aroused by the earthquake's alarm.

If stubborn Nature, unmanageable matter becomes obedient to the will, if the physical body to a larger extent than we realize is plastic in the hands of the soul, how much more is the spirit of man responsive to the slightest influence? This view of things is in line with the spiritual message of Christianity, supplemented and reinforced by the power of God. "I can do all things," said St. Paul, "through Christ, who strengtheneth me."

Side by side, however, with these tendencies which make for the soul's freedom are other tendencies in our modern life which would bind and

shackle it and explain away its authority.

One of these tendencies is philosophy, which now, as always, seems never to find ungrudging philosophical foundation for a true doctrine of the freedom of the will, never seems to give due weight to the instincts and motive, upon which common humanity acts.

Science, too, lends its reinforcement to the fatalism of the day, though the brutal statements of half a century ago are being revised to-day in the growing light of the new psychology.

All Things Possible With God.

Much of the sociology and economics of the day adds its emphasis to this prattle that nothing matters but environment. Don't blame the drunkard, men say, for his evil condition, and his loss of position, reputation and money. Blame the saloon-keeper! Blame society that permitted the sale of so powerful an agent of destruction!

So with the murderer, even! Don't be too hard, juror, on the man before you! Consider his bringing up, his parents. He sees "red." No man in his senses could take the life of another.

And thieves likewise, ranging from the highest all the way down the line to people who adulterate our food, poison the milk the babies must drink, dilute the drugs the sick depend on, makers of shoddy goods, sellers of short weights; don't blame them; they simply follow the general practice of the business; as though the trail of the waving grain of the wheat field to the loaf upon the table necessarily involved dishonesty, adulteration, thieving and graft!

The result of all this is fatalism, a blurring of the instinct of responsibility, a negation in practical life of the soul's power to rule.

How differently it is put on the pages of the New Testament: Pity for the sinner, condemnation for the sin; the message of forgiveness and freedom. No fatalism here; all things possible, the power of God to help. "I will arise and go to my father," said the prodigal, and he arose and went. The Gospel addresses man as imperial, free, able if he wishes, with the divine power to help, to choose the better way. —Rev. Dr. Witt Lincoln Patton.

