

# 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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**L. R.:** Have a seedbed ready to sow alfalfa in the spring. Want to cover it with marl. Should I do this before or after seeding?

**Answer:** It is immaterial when you apply the marl to your alfalfa field. This can be done this fall. I presume the field has been plowed but not worked down. It would be very good practice for you to haul the marl and spread it just as though you were spreading lime over the plowed field. In the spring, as soon as the soil has worked down. It would be very good worked into the top 4 or 5 inches of the soil. During the winter a large amount of soluble lime matter in the marl will be washed into the surface 8 or 4 inches and will correct the sourness.

**C. L.:** Is pasturing in the fall harmful to rye and vetch as grain crops?

**Answer:** Pasturing of rye and vetch in the fall is not injurious if you are careful not to pasture too severely and especially not to leave the livestock on the rye and vetch after there has been sufficient rain to make the ground soft. If the soil is clay there is danger of its packing so closely that the air will not circulate and this condition would be deadly to rye and vetch. If you have been pasturing your rye and vetch and it seems to be fairly well eaten off, you would do well to give it a top dressing of about 200 lbs. per acre of bonemeal, or of a fertilizer analyzing about 2 per cent. ammonia, 10 to 12 per cent. phosphoric acid.

**H. L. K.:** How can I tell whether the water from our well is pure or not? Is there anything we can put in it to kill possible impurities?

**Answer:** It is difficult to tell by simple examination whether or not the water is pure and free of disease germs. If you have any doubts as to the supply of water you would do well to send a pint sample of same to the Ontario Agricultural College, Chemistry Dept. and Bacteriological Dept. Ask both the departments to make an examination of it.

In many towns and cities it is common practice at certain seasons of the year, such as early spring, to put a certain amount of chloride of lime in the water. This through its chemical action assists in the destruction of the bacteria in the water. The quantities of chloride used depends upon the percentage of dangerous bacteria found in the water.

**J. S.:** Can I use the tractor to advantage in other work than plowing? Some who have had no experience question the advisability of counting on the tractor for other than the work of plowing.

**Answer:** The tractor can be used to advantage in several ways besides plowing. For instance, if the tractor is not too heavy it may be used for the hauling of such tillage machinery as disks and harrows, and at the same time the hauling of the seeder. Later the lighter tractors can be used for the hauling of cultivating machinery, while the larger tractors can be used for such work as the running of thrashing machinery, and all machinery requiring belt power, such as grinding machinery, machinery for sawing wood, road work and the like. There are a great number of uses that can be made of a tractor besides the primary use of plowing.

## Stamping Out Tuberculosis in Canadian Cattle

Canada's cattle by all accounts, comparisons, and statistics, may be said to be the healthiest of any country in the world, and the Accredited Herd System, by its thoroughness, is well calculated to keep them so. Before a herd can be declared free of tuberculosis a year or more must elapse, and the process is necessarily a slow one. For this reason many applications for the test have to be deferred. Up to October 1 of the current year, 648 such applications had been received, the greater number of which are still in process, while the others will be attended to as soon as they can be reached. The process is being conducted by officers of the Health of Animals Branch of the Dominion Department of Agriculture, and as men with the necessary experience and qualifications are not to be met with in great numbers, the staff is limited. Hence the delay that applicants are sometimes subject to. Up to the date mentioned 37 herds had been passed and given certificates guaranteeing absolute freedom from tuberculosis. It should be stated that only pure-bred herds are eligible for the test. Of the herds already passed 7 are Shorthorn, four in Ontario and three in Saskatchewan; 12 are Holstein, three each in Ontario and British Columbia, 1 in Manitoba and 5 in Quebec; 7 are Ayrshire, 1 each in Saskatchewan, Ontario and Nova Scotia and 4 in Quebec; 10 are Jersey, 2 in Ontario and 8 in British Columbia, and one is Aberdeen Angus belonging to Manitoba. It will thus be seen that British Columbia had 11 herds passed as thoroughly clean, Ontario 10, Quebec 9, Saskatchewan 4, Manitoba 2, and Nova Scotia 1. In addition to these, there are 558 herds that have been tested one or more in process of accreditation and 54 herds awaiting the first test. If a herd is found to contain an affected animal, more than a year must elapse before a certificate is granted, as the year of probation does not commence until after all trace of tuberculosis has been eradicated. Reactors are immediately removed and usually slaughtered under veterinary supervision. As a rule, there is no difficulty in detecting symptoms of tuberculosis by lesions, but if any suspicion remains guinea pigs are inoculated with suspicious material, and, if present, tubercle bacilli is at once revealed.

**I. A Straight Denial, 10-13.**  
V. 10. Then Paul . . . answered; the charges laid against him by Tertullus, namely: (1) "sedition" (v. 5), that is, stirring up treason and insurrection against the Roman government; (2) "heresy" (v. 14), that is, opposition to the Jewish religion; (3) "sacrilege," in setting himself to "profane the temple," v. 6. Many years ago, Felix had now held the office of governor of Judea for six or seven years; a comparatively long time at this period, when provincial rulers were changed very frequently. He is described by Tacitus, the Roman historian, as a very bad and cruel governor. Cheerfully make my defence (Rev. Ver.); because Felix, from his long residence amongst the Jewish nation, would readily understand the case. The simple and dignified courtesy of Paul is to be noted.

V. 11. Twelve days; so short a time that Felix could easily gain accurate knowledge of what had happened and so short a time for Paul to have excited a multitude to sedition. Went up ("up," because "Jerusalem" was built on hills, and because it was the capital of the country) . . . to worship. This declaration of his purpose squarely meets the three accusations against him—rebellion towards God, not rebellion against the Roman authorities; obedience to Jewish custom, not heresy; worship, not profaning the temple.

Vs. 12, 13. Paul denies that he had been guilty of the least disturbance, not even of causing the assembling of a crowd, either in (1) the temple (see ch. 21: 26); (2) the synagogues (Jewish places of worship of which there were a great number in Jerusalem); or (3) up and down the streets of the city; a complete answer to the charges of Tertullus, vs. 5, 6. Neither can they prove, etc. It is easy to take accusations; to support them by credible testimony is another matter. Disputing; carrying on a discussion.

**II. A Bold Confession, 14-16.**  
V. 14. This I confess. Says Bengel, "One crime he confesses, but declares it to be no crime." After the way (Rev. Ver.). See chs. 9: 2; 19: 9 (Rev. Ver.). A sect (Rev. Ver.). For Paul, Christianity was not a separation from the Jewish religion, but the fulfilment of it. Served (Rev. Ver.); not only in worship, but with the devotion of his whole life. The God of our fathers (Rev. Ver.); the God worshipped by the Jewish race.

Vs. 15, 16. Hope toward God; hope built upon God Himself, and his promises. Resurrection; the general belief of the Jewish people. The Sadducees, who denied the resurrection (compare

**Bits of Wisdom.**  
Says Sam: The most expensive type of fence is the one over which neighbors quarrel.  
The man who thinks any stock that is pure-bred is all right should read up on the history of certain European royalties. Pedigree means nothing unless backed by performance.  
Soy-beans are soil builders.  
Ever notice that the fellow who doesn't want to see the county representative is the one who never has seen him?  
Nobody's seed corn is better than your own if you've a satisfactory strain, and will select carefully from the stalk.

## Cattle Feed Impurities.

During the war not only did the price of cattle feeds of all descriptions greatly increase, but they also deteriorated in quality to a marked degree. Dangerous as well as unpalatable feeds were reported. In an effort to improve the situation the Dominion Department of Agriculture undertook to obtain data which might serve as a basis for the regulation of the matter by legislation, which has since been secured. A bulletin giving the results of the investigations has recently been issued. As a preliminary step, manufacturers of feeds and dealers all over the country were communicated with and samples obtained. These were analyzed, first for their purity and absence of injurious weed seeds, and then for their value in protein, fat or oil, carbohydrates (starch, sugar and allied substances), fibre (the least valuable of nutrients and yet required to a limited extent), and ash (a mineral matter taken from the soil by the plant, which, in the animal, assists in forming bone). The extent and thoroughness of the work will be appreciated when it is stated that 57 samples of bran, 69 samples of shorts or middlings, 8 samples of feed flour, 36 samples of barley and barley products, 3 samples of whole oats, 26 samples of hulled or hull-less oats, 8 samples of oat feeds, 6 samples of Vim feed, 27 samples of corn-meal, 9 of gluten feed, 41 samples of mixed chop feeds, 14 samples of Schumacher feed, 10 samples of Sampson feed, and varying quantities of calf meals, hog feeds, poultry feeds, oil cake meal and miscellaneous feeds, were analyzed and microscopically examined, resulting details of which are set forth in the bulletin in tabular form. Description is also given of the nature and effect of the weed seeds frequently found in commercial feeds.

## Corn Borer Suppression.

Every effort is being made to check and suppress that insidious and persistent pest, the European corn borer, the presence of which in Canada was first revealed in 1919. Since its discovery it has succeeded in working its way into various districts, so far as known at present, exclusively in Ontario. Other places, however, are urged to keep a watchful eye, and if any traces appear to immediately notify the Entomological Branch at Ottawa. The law prohibits the removal of corn fodder or corn stalks, including broom corn, whether used for packing or other purposes, green sweet corn, roasting ears, corn on the cob or corn cobs, from areas infested, except when manufactured in such a manner as to eliminate any risk of the pest being carried. Seed corn on the cob may be shipped for exhibition purposes, but the consignments must be inspected on arrival by an inspector appointed under the Destructive Insect and Pests Act. Importation has also been prohibited from areas infested in the United States of corn and broom corn, celery green beans in the pod, beets with tops, spinach, rhubarb, oat and rye straw when used for packing, cut flowers, or entire plants of chrysanthemum, aster, cosmos, zinnia, hollyhock, gladioli, and dahlias, unless accompanied by a certificate of inspection issued by the United States department of agriculture stating that the products mentioned are free from the pest, as all the above plants are liable to harbor the borer. It should here be mentioned that a full description of the corn borer, its habits, nature, how to identify its presence in early stages, and methods of control, are given in a leaflet recently issued by the Dominion Entomological Branch.

# The Sunday School Lesson

NOVEMBER 13.

## Paul Before the Roman Governor. Acts 24: 10-17. Golden Text—Acts 24: 16 (Rev. Ver.).

Time and Place—A.D. 58, Caesarea.

Connecting Links—Ch. 22: 1-21 gives Paul's speech from the castle stairs, which was interrupted by the crowd when he spoke of his commission to preach the gospel to the Gentiles. The frenzied mob demanded the apostle's life (vs. 20, 23), and to save him from the rage of his countrymen, the Roman commander ordered him to be brought into the castle, where he was about to be examined by scourging, when he saved himself from this cruel indignity by declaring his Roman citizenship. In ch. 23: 1-10 we have an account of Paul's appearance before the Jewish Sanhedrin, which was brought to an abrupt close by a dispute between the Sadducees and Pharisees. The rest of the chapter is occupied with the plot against Paul's life, which resulted in his being sent to Caesarea. Five days after Paul's arrival at Caesarea, Ananias, the Jewish high priest, came down to Caesarea, accompanied by certain of the elders and Tertullus, an eminent Roman lawyer, whom they had engaged to lay their accusations against Paul before Felix, vs. 1-9.

Vs. 17-20. After many years. Four or five years had passed since Paul had been in Jerusalem, ch. 18: 21, 22. Came to bring him; the contributions which he had gathered in the churches of Europe for the poor Christians at Jerusalem, Rom. 15: 26; 1 Cor. 16: 1; 2 Cor. 8: 4. Offerings; the sacrifices connected with the Nazirite vow, ch. 21: 23-26. Ought to have been here; to make their charges in open court. Let these men . . . say (Rev. Ver.); Ananias the high priest, and those with him.

**IV. A Trembling Judge, 22: 27.**  
Vs. 22, 23. Having more perfect knowledge. The meaning is that Felix had "a pretty exact notion" as to what belief in Jesus meant, and saw that no case had been made out against Paul. He might have dismissed the case instant, but his interest lay in giving to the Jews as little offence as possible. Hence he "deferred them," that is, adjourned the case, awaiting the coming of Lysias with additional evidence. Keep Paul, and . . . let him have liberty. This "free custody," as it was called, allowed the apostle's friends not only to visit him, but also to bring him food, books, letters, writing materials, etc.

Vs. 24, 25. Felix came; arrived, that is in Caesarea from a distance. He had been absent from the city. With his wife, Drusilla; the daughter of Herod Agrippa I, and so sister of Agrippa II, and Bernice. Felix had indeed the leave of her husband, Azizus, King of Emesa, and become his wife. It was with this crime on his soul that Felix sent for Paul. Reasoned of righteousness, temperance . . . judgment. The apostle met Felix with a stern demand for moral reformation; Felix trembled; in terror. Perhaps his crime against Drusilla's husband had been of recent occurrence, and he was therefore the more sensitive to such teaching. Go thy way . . . convenient season. Thus Felix stifled his conscience. The "convenient season," alas! never comes. Felix did not change his conduct.

Vs. 26, 27. After two years Porcius Festus; one of the better kind of Roman governors. Gain favor with the Jews; (Rev. Ver.); the real reason, along with the hope of a bribe, which had influenced Felix in keeping Paul in custody. Left Paul in bands; (Rev. Ver.); probably withdrawing the indulgence previously granted, thus giving Festus the impression which the Jews desired, that the prisoner was deserving of punishment.

**Application.**  
St. Paul before the Roman governor, is discovered to us yet more clearly in that "white light which beats upon a throne." To begin with, he is studiously courteous. Although Felix was a bad governor and perhaps a worse man, St. Paul is respectful to him as one of the powers that be, and even pays him a compliment. There even are those good people who know little about "a lovely goodness," who feel that in order to be true to principle they must be discourteous to evildoers. No such thing. Good in its conflict with evil must ever be courteous. If the evil-doer does not deserve our courtesy, we at least owe it to ourselves to be courteous to all men. Habits of discourtesy show not only disrespect to others, but a fatal lack of self-respect.

# Programme Planning in the Women's Institutes

By Gibson Scott

"Now there is some satisfaction in doing a job like that," said a young housekeeper recently as she paused in passing to watch the men at work upon one of the splendid new highways through rural Ontario.

"You work hard at it and when it is finished you and every one else who passes that way knows that it is a good bit of work. You have made things better for the countryside. Above all, when it is done, it stays done. Now with the housekeeping, no matter how well you do it, it all has to be done over again every day and every week, and—" there was just a touch of pathos in her voice, "no one notices all the things you do in the house—unless they are not done! There is no forty-eight-hour week for the home-maker, no decorations, no increased salary, no public recognition."

"Have you a Women's Institute in your neighborhood? And do you belong?" asked her companion.

"No, we have the Ladies' Aid in our church. I go to that sometimes." "The Women's Institute is not that. It is a centre for study, inspiration, and social recreation for all the girls and women over fourteen in the neighborhood, those who are home-makers or ever may be."

There was something infectious in the tone, the upturning curves of the happy mouth, the sparkling eyes of the veteran home-maker. "It is non-partisan, non-sectarian (not non-religious, as one enthusiastic but ill-informed English organizer said) and recognizes no class distinctions. The girls and women of a neighborhood set aside one afternoon in each month when they all come together to study better home-making, to pass along their best ideas to each other, to ask and answer questions, give demonstrations, papers, readings, music, and end with a cup of tea and a social half-hour."

"What do the men say?" There was a hesitating note in the query of the first speaker.

"The men? Oh, they like the Women's Institutes. You see, they think they are going to get nicer things to eat when the women are members of an Institute! And their wives come home full of life and fun and good humor after the lively afternoon. They are as proud as peacocks, too, when their wives or daughters are holding office or taking part in the program of the Institute. It dignifies housekeeping, you see. The Institutes are in partnership with the Government. There is an Institutes Branch of the Department of Agriculture which sends out lecturers and demonstrators and information and literature to any Branch which asks for it, and co-operates with the members in getting up the annual conventions where men and women discuss together all that goes to make better homes, better people, a better community, a better and more scientific agriculture. Oh, yes, country women believe in working with men—it takes a man and a woman to create a home, and they should both work intelligently to get the best kind, they think. Of course, we meet separately for some things—but jointly for the general results. We have the same co-operation in the Superintendent and his Staff in the Department, the man and the woman, jointly. Our Institutes Branch is really the first State Department of Home-making set up by any Government."

"It does seem as if growing the people of which the province is composed should be a matter for study and the co-operation of men and women, should be important enough for governments to set up a Department to help the rural home-makers. But is Ontario really the first Government to think of it?"

"The rural home-makers and the Government of Ontario have the proud distinction of being the pioneers in planning such an effective way of working together, that our Institutes Branch and local Institutes are being copied now in many other countries, especially within the British Empire."

"I'm so proud. I'm going to talk to the other women right away and see if we can't start one here. What is the fewest number that can start an Institute?" There was a purposeful note in the question.

"Ten the first year, rising to fifteen the second year. You can get a Handbook from the Superintendent of the Institutes Branch in Toronto which tells you how to plan your programs and conduct your meetings."

"How long is it since the first Institute started?"

"Twenty-five years next February. But it is only about twenty-one years since we succeeded in getting the full co-operation of the Government in our Conventions and with lecture-demonstrators, who come to the Institutes when they want them. They are specialists in their line, you know."

"I like that idea of men and women working together for the best interests of the home. I've often thought we women leave the man out too much, as if home-making and bringing up the children were women's affairs only. There is the man's point of view and the woman's, and we need both. In the Institutes' way of going at things we seem to come nearer getting it than in any other way of which I know."

It was out of a conversation like this that a new branch Institute grew which is revolutionizing the outlook of a whole rural community. Ontario Institutes grow. There is no great propaganda campaign. When and where a neighborhood feels that it wants one, it starts one and can get help, at the beginning and afterward, in its organization and plans, from the Institutes Branch in the Parliament Buildings, Toronto.

**A Well Planned Institute Program.**  
A good program planning is the crux of a successful Institute. No two programs are just the same because the needs of no two neighborhoods are quite the same, but the same underlying principles are present in all.

Here is an attractive, well-balanced program for 1921-22 from the West Flamboro Institute. Note the broad and practical outlook of the home-makers, girls and women, in the scope of the subjects studied during the year. Foods, health, the social life, the school, civics, clothes, laws, business methods in the home, labor-saving, how to live the highest and happiest life, music, discussions, with the mottoes and Institute ode, are all combined in a whole which is for the most part carried out by local talent. The June meeting will be addressed by a speaker from the Department of Agriculture sent from the staff of the Institutes Branch.

**July.**

Opening Exercises, Roll Call.

"Canning Fruits and Vegetables," Mrs. Thompson.

"Selection of Meat on the Market and the Best Ways of Cooking Each Cut."

Discussion.

Preparation of Questions: Mrs. Cecil Green.

Music: Miss Weir.

**August.**

Opening Exercises, Roll Call.

"Preparation of Vegetables for the Table": Mrs. Wm. Hopkins.

"Simple Desserts for Warm Weather."

Discussion.

Preparation of Questions: Mrs. Frank Hore.

Music: Miss Florence Dymont.

**September.**

Opening Exercises, Roll Call.

"Preparation of Fish for the Table." Discussion.

"Salads": Mrs. David George.

Preparation of Questions: Mrs. Harvey Betzner.

Music: Mrs. Fraser Morden, Miss Maude Betzner.

Visitors to School: Mrs. Surerus and Mrs. W. Anderson; Mrs. Ed. Morden and Mrs. H. Hunt.

**October.**

Opening Exercises, Roll Call.

"How We Are Governed": Mrs. Vernon McKee.

"Pickling." Discussion.

Preparation of Questions: Miss Annie Dwyer.

Music: Miss Clara Nunn.

Visitors to School: Mrs. H. Betzner and Mrs. W. Nunn; Mrs. B. Hyslop and Mrs. McK. Morden.

**November.**

Opening Exercises, Roll Call.

"Christmas Thoughts": Mrs. Wm. Anderson.

"Proper Methods of Entertaining in the Home": Mrs. Enright.

Preparation of Questions: Mrs. Geo. Cornell.

Music: Mrs. James Harper and Mrs. Ed. Lightfoot.

Visitors to School: Miss Rachel Betzner, Mrs. Geo. Cornell; Mrs. Hopkins and Mrs. J. Surerus.

**December.**

Opening Exercises, Roll Call.

"What All the World's Seeking": Mrs. James Harper.

"Candy Making." Discussion.

Report of Convention.

Preparation of Questions: Mrs. W. McKee.

Music: Mrs. W. McKee and Mrs. V. McKee.

**January.**

Opening Exercises, Roll Call.

"Hints on Nursing and First Aid": Dr. A. F. Rykert.

Preparation of Questions: Mrs. Corman.

Music: Mrs. Ed. Morden and Miss Maude Betzner.

Visitors to School: Mrs. Cecil Green and Miss A. Dwyer; Mrs. Hore and Mrs. Enright.

**February.**

Opening Exercises, Roll Call.

"Living a Life is More than Making a Living": Mrs. McKinley Morden.

"Labor-Saving Devices." Discussion.

Preparation of Questions: Miss Rachel Betzner.

Music: Mrs. McK. Morden and Mrs. Ed. Lightfoot.

**March.**

Opening Exercises, Roll Call.

Demonstration on Dressmaking: Miss Cummings.

Preparation of Questions: Mrs. L. Ironsides.

Musier Miss Weir.

Visitors to School: Mrs. A. C. Ross and Mrs. A. Betzner; Mrs. R. Hunt and Mrs. Hopkins.

**April.**

Opening Exercises, Roll Call.

"Canadian Laws for Women and Children": Mrs. A. C. Ross.

"Value of Keeping Household Accounts." Discussion.

Preparation of Questions: Mrs. Wm. Anderson.

Music: Mrs. W. McKee.

**May.**

Election of Officers.