

# 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 the 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.

**Subscriber:** I have a few acres that I failed to get seeded. It overflows in the spring so I do not dare to put fall wheat in. I have sowed oats on it for several years and seeded to June and timothy, but do not get a good stand. Part is sandy and part clay. Would it be better to seed with alfalfa for a catch?

**Answer:** I believe the best you can do with this land is to sow it to barley and at the same time seed to a mixture of timothy 4 pounds, red top 3 pounds and alsike clover 3 pounds per acre. This overflow land is difficult to handle, but the two grasses and clover which I have recommended all do well on a slightly sour soil, and clover and barley are comparatively shallow rooted. Do not use more than a bushel and a half of barley per acre. You should get a good yield of grass and a strong stand of clover, which when established should stand for three or four years.

**W. F.:** I am thinking of raising some muskrats. I want to plant some wild rice in a three-acre pond if it will grow here. The pond is dry from two to three months in the summer. Is wild rice a noxious weed? Where can I get the seed?

**Answer:** I am unable to get much information on wild rice. Like other rice of course it grows in low and wet places and produces a comparatively large yield for such ground. Wild rice is a troublesome weed where other rice is grown. It sheds its seed early, and if once it becomes established in a rice field it is very difficult to grow high grade rice at a later date. However, for your purpose there is really no danger as far as I can find out. Possibly it would be well for you to plant ordinary rice. A seedsmen should be able to direct you to a source of supply.

**P. D.:** Would buckwheat middlings be a good feed for cows during the summer while on grass? Would it

**The Keeping of Poultry.**  
The Dominion Poultry Husbandman gives the following timely advice to poultry keepers: Keep the houses clean and well ventilated. Do not shut the houses up tight to keep the hens warm, but open up the south side to keep them healthy. Have plenty of nests, but so arranged that the hens cannot roost on them; see that there is plenty of clean litter in the nests; gather twice a day at least during the summer months. Keep the eggs in as dry and cool a place as possible. Retain all dirty, small or cracked eggs for home use and ship others as regularly as possible. The males should not be allowed to run with the flock outside of the breeding season, and even during the breeding season it is better to mate only the best of the hens. This should permit the shipment of infertile eggs at all times, which, as a rule, will ensure a better price to the producer and better satisfaction to the consumer.

The rolling stone often gathers remorse.

**How We Staged a Play**  
By Louise E. Brandon  
The young people of our community wanted to give some plays. There was no building suitable for such a purpose so it had to be an outdoor event.

I offered the use of my home, which, for several reasons, was very nicely suited to our plans. It has a veranda without railings, extending the full width of the house and at the right height from the ground for the stage. As it is not wide enough, we borrowed some native lumber from a neighbor and built a large stage extending out in front of the veranda.

We used no curtains at the front or around the stage; instead, at the back of the stage and just at the front of the veranda, we ran curtains. These were large-sized sheets with number nine wire run through the upper hem. This kept them from tearing and they could be easily set back and forth on the wire. One end of the veranda we curtained off for the use of the actors; the other end was backed with flowers and decorated above and below with red and blue bunting; a large rug covered the floor; a table and three chairs were all the stage setting we needed as the plays all had interior scenes.

Our greatest trouble was the lighting proposition and for a time we really felt "up against it." Then,

someone had a bright idea. We secured two big tractor head lights and several car lights. The two larger lights we placed on poles, one at each corner of the stage and the other two they lighted the stage at the front so they turned away from the audience. The car lights we used for footlights along the front of the stage and ran them all from automobile batteries rented from the battery station. The batteries were placed under the stage and we even had lights for the piano and orchestra by using auto "trouble lights" hitched to the batteries.

Opening into the house from the veranda are two doors which made our "exits"; our bedrooms were used for dressing rooms, so everything was convenient and complete.

Instead of one long play, which would necessitate the changing of scenery, we chose three one-act plays with songs, specialties and vaudeville stunts between acts. We also were careful to choose plays which had plenty of laugh in them but did not require elaborate costumes, so we all the costumes needed.

The young people had their own orchestra. The lumber, costumes and scenery so the only expenses was for the books of plays and the batteries leaving a substantial sum as a reward for the efforts of the young people.

**The Friendly Rabbits.**  
Lou Melinda Lovett  
Was a most well-mannered lass;  
She spoke to every creature  
That she might chance to pass.

She greeted all the poultry  
With little smiles and bows  
And nodded to the horses  
And curtsied to the cows.

The butterflies and robins  
Responded to her brightness;  
The surly turkey gobbler  
Was touched by her politeness.

'Tis said a solemn screech owl  
To which she gayly bowed  
Was so agreeably startled  
That he really laughed aloud.

She stepped outside the pathway  
For a snail that would not stir;  
To a toad that made her stumble  
She said, "Excuse me, sir!"

It hardly seems a wonder  
That on an Easter Day  
(At least so runs the story,  
And who will say it nay?)

Two timid wildwood creatures  
Of most stand-offish habits  
Came scurrying to greet her—  
Two gloomsome, gloomsome rabbits.

They came like faucing fluff balls;  
They whisked along the way;  
Their tails were tucked and merry,  
Their ears erect and gay.

And Lou Melinda Lovett  
Just held her two arms wide,  
Quite pleased, but not astonished;  
"Why, bless your hearts!" she cried.

**Paralysis in Pigs.**  
Inasmuch as paralysis in pigs is a disease which has been suggested that piglets which are well supplied with vitamin B, be added to the ration. Experimental work along this line has given remarkable results.

It is time that the peddler father who wasted his energy following in convenient, awkward and uneconomic ways should return to his younger son, Efficiency.

**Repairing Concrete Tanks.**  
Occasionally happens when sufficient reinforcement has not been either through the freezing of water or by uneven settling. These cracks may often be repaired by using a rich cement and plastering over the cracks until they are well filled.

Every important issue is said to have two sides—the wrong side and our side.

Legumes are fertilizer factories right on the farm, with no freight charges.

## The Sunday School Lesson

APRIL 23  
Uzziah's Pride and Punishment, 2 Chron. 26: 3-5, 15-21.  
Golden Text—Prov. 16: 18.

Time—B.C. 790-749.  
Place—Jerusalem.  
Lesson Foreword—Josiah was succeeded by Amaziah (see 2 Kings 14: 1-20; 2 Chron. ch. 25), and he, in turn, by Uzziah. Uzziah was one of the most brilliant kings of Judah, and his reign was very prosperous.

V. 1. Uzziah's name means, "Jehovah is my strength." In 2 Kings 15: 1 he is called by another name, Azariah, which means, "Jehovah is my help." Sixteen years old, V. 1 leads us to infer that he was chosen king by popular acclamation rather than by hereditary right; he may have displaced an older brother. Fifty and two years; one of the longest as well as the most prosperous reigns in the annals of the kingdom of Judah.

V. 4. That which was originally Hebrew word for right sense originally meant "straight." Thus, Ps. 23: 3 speaks of "paths of righteousness"—straight paths—and Jesus speaks of the narrow way which leads to the straight gate, Matt. 7: 14.

V. 5. He saw the vision of God's standard Uzziah did what was right in His early years. "To seek the Lord" is a frequent term in the Old Testament. It may mean: (1) to seek God through those who ordinarily reveal His will; (2) to seek him in prayer and worship; (3) to make an effort to obey his will and to practice righteousness. The direction of Uzziah's life was set towards God. In the days of Zechariah, Zechariah, not mentioned elsewhere, was a prophet whose influence over Uzziah in his early years was for good. Understanding the visions of the prophets frequently came to the prophets through visions. (See Isa. 1: 1; Jer. 1: 11-13; Ezek. ch. 1, Zechariah not only received visions but he was able to interpret them correctly. As long as he sought . . . God, it might be said that the book of Chronicles was written to prove the truth of this thesis. Each king's reign is passed in review and it is shown that the man who seeks God prospers; the man who forsakes him is punished.

Uzziah is depicted as a man of versatile ability who used his great gifts to the strengthening of his kingdom. (1) He was a successful general conducting victorious campaigns against his enemies and extending the borders of his land, vs. 5-8. (2) He had a shrewd eye for commercial advantages. Seizing Elat, a strategic port on the Red Sea, he opened up trade with the south and east, v. 2 (3) Realizing its importance for the prosperity of the land he took a keen interest in agriculture, and devised a way for irrigating the land, vs. 9-10. (4) He was an efficient organizer, and strengthening the defenses of the realm.

V. 15. Uzziah's Presumption, 15-18. Whatever its nature, was apparently capable of beating back an invading army. He was marvelously helped, etc. This success Uzziah's downfall to its roots. Prosperity proved his undoing.

V. 16. His heart was lifted up. He became proud, arrogant and self-confident. Into the temple to burn incense. The burning of incense was a sacred rite and none but a priest was qualified to perform it (see Ex. 30: 10; Num. 16: 40). Uzziah's inflated

vanity prompted him to usurp a function which did not properly belong to him.

V. 17. The priests attempted to stop such sacrilege. Fourscore cried to the services of the temple required a large number of priests. Valiant men. It would require all their valor to withstand so proud and powerful a king.

V. 18. Burn incense. Incense was formed by burning certain aromatic substances and was offered morning and evening on the golden altar; its sweet odor was supposed to be particularly pleasing to God. It was sometimes referred to as a symbol of prayer. (See Ps. 141: 2; Rev. 8: 3.)

V. 19. Uzziah was wrath. The priests were quite within their rights in restraining him. His anger was reasonable. Censer. Before the altar the censer was simply a pan or shovel in which the incense was mixed with live coals; after the incense was burned on the altar to carry off from the great altar to the altar of the sacred incense . . . rose up. The angry man who meddled with sacred duties was frequently stricken on the spot.

V. 20. They thrust him out. The presence of a leper, a person who was defiled ceremonially unclean, would defile the temple. "He entered as a priest and he left as a leper."

V. 21. Dwelt in a leper's house. Leprosy was the most loathsome disease of which the East. To prevent contagion, the leper was required to live in an isolated life. Uzziah, however, was allowed to remain in his palace, but he would always be in quarantine. Jotham his son, etc. Since Uzziah was forced to retire from his kingly duties, Jotham exercised the regency until Uzziah's death.

Dangers of Prosperity—"I have been a minister for nearly half a century," said recently, "and in that time I have known a good many men utterly spoiled by prosperity. I have come to believe that few men can become prosperous and remain humble." It was after a number of great victories that Napoleon grew arrogant, and said "Take the word 'impossible' out of the dictionary, nothing is impossible to the man who has will power." Evidently the dangers of prosperity are very sinister.

When Phillips Brooks was made a bishop, he, with characteristic humility, was overwhelmed with a sense of his responsibility and spent many anxious days in prayer. Then he sent him, "If you ever think that this position is making any difference in me; if you ever see any sign of pride; if you really wish to tell me at once." That really, his heart might be lifted up to his destruction.

Leads to Egotism—During the last few years a great many "success" books have been written which generally contain accounts of how boys, who started with little or nothing, have achieved distinction in various fields. Thousands of magazine articles have been written along the same line. A "So-called self-made man are the most objectionable men I know. They become so egotistic that they attribute their success entirely to extraordinary ability which is very rarely true."

## For Home and Country

A Branch of Many-Sided Interests

The Riverside Branch of South Wellington District has had a very successful Institute year, reports the secretary. "A membership contest held early in the year and closed at the Girls' Meeting in August, brought in about 45 new members, making a total of 114. A steel engraving, framed, was given as a prize to the girl who brought in the most new members.

"The regular meetings are held in private homes. A convener arranges for a program and notifies the hostess. Three ladies who live near the hostess supply this, and the dishes are served at our regular meetings. The hostess provides tea, cream, and sugar. The program generally consists of one or two seasonal papers, as 'Hot Supper Dishes,' 'Menus' for November; March, 'Poultry or Chicken Raising,' 'Housekeeping Hints,' June, 'Canning Fruits and Summer Salads.' These, with music, recitations, and a Roll Call, or Question Drawer, form the regular program.

"We always take advantage of the Departmental speaker in June. This year Miss Hopkins spoke on 'Little Things that Make Life Worth While.' She is a very able speaker, and makes things very plain for the Branches. The suggestions she gave regarding the Institute work and management proved her capability in this line of work. During the year about \$25.00 was realized from waste paper. We visited three other Branches in the District during the year, and they returned the visits and provided the program. At the Girls' Meeting in August we had a tart-making contest and a prize was given for the best. In the fall, at 'Mothers' Meeting,' each family

donated one dozen eggs and a pound of butter or fruit and vegetables to the Children's Shelter, Guelph. These dozens were valued at \$50.00. Two Canadian National Institute for the Blind. These were sold and the proceeds returned to the blind.

"A Home-Made Baking Sale was held in the city, which realized about \$28.00. The Institute have purchased five dozen cups and saucers also five dozen spoons, with part of their funds. We are endeavoring now by buying these dishes and other things, to spend our money in the community, as the superintendent suggests. These dishes are taken from home to home, the hostesses of the last meeting taking them to the hostesses for the next.

"In December two excellent reports were given by our delegates to the Toronto Convention. The Institute was instrumental in having hot lunch started in three schools. We had an open meeting for the members and their families on Valentine night. The program was supplied by twelve O.A.C. students and included a debate, 'Resolved, that the Government should be replaced, tree for tree, every tree cut down or destroyed in the Province.' We also aided a poor family in town with funds and clothing. A nursing class was held in February in a private home, with a membership of twenty-eight. This proved interesting and most instructive. We also had President Reynolds address us on 'Education and Its Value to the Canadian Boys and Girls.'

"This year we are planning to do even greater work, and are waiting now, having made application some time ago, for Medical School Inspection throughout South Wellington District.

**The Seed Grain Purchasing Commission.**  
The Seed Grain Purchasing Commission, operated under the Seed Branch of the Dominion Department of Agriculture, has in the past few years handled a tremendous quantity of seed grain and all without a charge on public funds. Not only was the seed supplied up to the standard required by the Seed Control Act, but at a price as low as could possibly be made without loss. The extent of these operations is exemplified by the fact that in the last fiscal year requests were filled from provincial and municipal bodies, farmers organizations, and individuals for more than a million bushels of seed wheat and seed barley. By this service, during the period of the war and since, the Commission has served to protect Canadian agriculture more especially in the Prairie Provinces against seed shortage of any of the staple kinds.

**Be Sure You Are Right**  
And Then Proceed With the Tile Drain

The ideal system of tile-drainage is one that combines economy in construction, and efficiency in such a way that the benefits derived from it return a maximum return on the money invested in it. In drawing up a plan for such a system, all of the many factors that influence it, must be given due consideration.

No part of the investment in a tile-drainage system will yield bigger returns than the time and money invested in a careful study of the drainage problem in every detail. What may be an economical, efficient plan for Brown's farm which adjoins a plan for Jones' farm, will be a waste of money unless a study of the planning of a tile-drainage system. Unless a farmer is qualified through training and experience to do this work, he should by all means engage the services of a competent drainage engineer.

The importance of designing a plan of drainage that will serve the drainage requirements of the entire farm, can hardly be overestimated from the viewpoint of economy. No wise manufacturer who contemplates the building of a factory, will tell his contractor to build its foundation before he has determined the maximum number of stories it will ever be called upon to support. Similarly, no foot of main-drain should be installed in any farm unless the maximum load it will ever be called upon to carry, has been determined by a careful study of the farm's drainage requirements. Piecemeal construction of a drainage system, without following a definite plan, is a wasteful practice.

The first factor to be considered in the design of a system of underdrainage is the outlet. The economy of securing a permanent outlet that will be large and deep enough to answer the requirements of depth and grade of all the drains it serves, is quite apparent. Where available, two outlets can sometimes be economically used. Frequently a considerable amount of running the lateral drains directly into an open ditch. This practice is not recommended, however, unless the cost of a main drain is excessive. If there is no outlet near the farm, it

may be possible to secure one by crossing a neighbor's farm. In this case, the two neighbors should cooperate and plan a main-drain of such size and so located that the drainage requirements of both farms will be met. Should none but a poor outlet be available, the planning of a drainage system should be postponed until an adequate outlet can be obtained.

The nature of the soil and subsoil is an important factor in the design of an adequate system of drainage, and should be carefully studied. This factor determines the depth and frequency of drains, and the minimum grade to which they can be safely laid. Should the subsoil be so compact that water cannot pass through it, a study of it will reveal that fact, and prevent the waste of time and money involved in trying to drain it.

Another factor to be considered in this connection is the kind of crops to be grown on the farm. Truck crops will, because of their greater value, warrant a closer spacing of laterals and a greater resultant investment than hay and grain crops. It is quite conceivable that an investment in drainage of \$75 per acre on land devoted to the former may yield bigger returns than one of \$40 per acre on land devoted to the latter.

The direction of the surface and underground water flow, and the slope of the ground are the factors that determine the location of the drains. Lateral drains must be laid, whenever possible, across the line of surface and underground water-flow, in order to prevent seepage between them and into a large extent, surface washing of the soil. A few long laterals provide more economical drainage than many short ones, because of a reduction in the amount of double drainage in the area adjacent to the main.

The efficiency of a farm drainage system is frequently impaired because of the loss of crops due to an excess of surface water, in one season, more than equal the saving thus affected.

The economical success or failure of any system of tile-drainage will depend largely upon the degree in which the factors considered above have influenced its design.

**Eggs Like Porcelain Pots.**  
Many insects lay eggs, which surface in shape and coloring the most beautiful of birds' eggs. Only they are so tiny that to be seen, and properly appreciated, they must be viewed under a powerful microscope.

The eggs produced by many butterflies and moths, for instance, are amongst the most beautiful things in Nature.

Some of them are shaped like little porcelain pots, with lid and all complete. Others resemble the familiar "sea-urchins" you find amongst the rocks and on the sands at certain seaside resorts; only, of course, they are very much smaller.

Others are like miniature, very miniature oranges. Same shape, same color, same rough outer skin!

One species of moth lays an egg shaped like a melon, but colored in crimson and gold. Another kind of egg—that laid by the orange-tip butterfly—resembles an oblong wicker basket.

**Twenty-four Hour Day.**  
The official day in many Latin American countries is divided into twenty-four hours, numbered consecutively from 1 a.m. and ending at midnight. Thus four o'clock in the afternoon is sixteen o'clock, and nine o'clock at night is twenty-one o'clock. In Argentina it is compulsory to use the twenty-four-hour system for public documents such as theatre programs, contracts mortgages and judgments of a court.

Never think your highest self is out of reach.

Gardeners and others numbering 1,281 are engaged in laying out the resting-places of British soldiers who fell in France.

## LOST MOTION IN FARMING

Every farmer has had experience with an old mowing machine which has become so loose in all of its bearings that it would not function properly. "Too much lost motion" was the verdict and a new machine the necessary result.

The business of the farm as it is usually conducted is to some extent comparable to the old mowing machine. There is too much lost motion. This lost motion is attributable to a variety of causes, some of them unavoidable, but many of them susceptible to correction. Lost motion is one of the greatest problems of farm management and a problem which it will pay every farmer to study well in all of its varying phases.

Of the different forms of lost motion on the average farm which should be first and most closely studied that related to farm equipment is among the most important. There is a great deal of lost motion during the busy season on most farms because the farm machinery and equipment fails to function properly in season. There are expensive delays for repairs and added expense in the accomplishment of a task on account of the lack of available equipment for the accomplishment of the work in the most economic manner. Much of this loss can be avoided if proper attention is given to the problem in advance of the actual need.

Economy of crop production is in large measure dependent on economy of man labor. There are many ways in which this economy can be effected upon every farm with a little careful study on the part of the farmer manager. And this is a problem worthy of the most careful study at the present time. A reduction in production costs spells increased profit and prosperity just as surely as does increased prices for farm products. Eliminating the lost motion so far as possible is the best kind of farm management.

**Oiling Large Bearings.**  
The larger a bearing—that is, the more surface over which the load is distributed—the easier it is to lubricate the bearing effectively. The pressure per square inch of exposed surface being reduced, it is easier to maintain an oil film between the two metals. We are assuming that the bearing is properly fitted, so that the load is evenly distributed and not carried on one or two high spots, for if that is the case the lubricant work off faster than it could be supplied.

A new bearing, even though it has been carefully fitted and supplied with oil, is much harder to lubricate, because it is still very young when compared with one that has been "worked in." Keeping this in mind, do not go to the field with any new piece of machinery and do a heavy day's work without special attention to the lubrication.

Those who run cars can testify that when oil in the crank-case and transmission is too heavy, the engine is mighty hard to start on cold mornings. We do a lot of work oiling our own cars. We do a lot of work oiling our own cars. We do a lot of work oiling our own cars. We do a lot of work oiling our own cars.

**The Truth Th**  
"You shall know the truth and it shall make you free." Ignorance makes enlightenment less.

Good reading, and travel, and an open mind, and a lot of superstitious ledge is constantly our limitations. The broader our horizons, the freer our minds. The broader our horizons, the freer our minds. The broader our horizons, the freer our minds.

**A Giant**  
Not far from the town of Idaho, is a spring of electrical plant. It is known as Thousand Spring, and like it to be found all over the world. It is said to be the largest of its kind in the world. It is said to be the largest of its kind in the world.

**Straight Hair**  
From the woman's point of view, the Province of Bergen, Norway, is in one respect a desirable place of residence. It rains there 300 days and, owing to the moisture, hair will not stand up to despair! For this reason, hair-curlers are ordinary, and demand there, a factory of marcel waves and contrivances. Bergen is most promising spot of their beautifying