

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, whose answer will be mailed direct.

L. V.—When prices are good our hogs and cattle pay us; you could get the same about corn, wheat and other farm crops; but when prices are low—where are we? Some of us farmers are wondering if big yields really do pay.

Answer: The question of how profitable big yields are is not new. However, there has been some very reliable and interesting information gathered on it this last couple of years. The Ontario Agricultural College Bulletin No. 278, publishes some figures precisely to the point. Prof. Leitch, the author, made a study of 226 general farms in central Western Ontario. These were not picked farms, but were the sum total of farms good and bad in the section visited. The investigators obtained as reliable information as possible regarding the crops, livestock, cost of labor, seed and other things that enter into costs and profits of the farm.

Regarding yields and profits, they found the following: Where the yields were below 81 per cent. of the average yields of the district, the labor income was \$596 a year.

(To obtain labor income Prof. Leitch found the total of farm receipts for the year and the total of farm expenses. From the total receipts he deducted the total expenses, which leaves the total revenue for the farms. Now, he estimated the interest at 5 per cent. on the total capital invested and deducted this from the total revenue mentioned above. This gave the net revenue of what was left to pay the farmer for his own and his family's labor. This is what is understood as labor income.)

Returning to his investigations: Where crop yields of the farms were from 81 to 90 per cent. of the average of the district, the labor income, instead of being \$596 was \$583. In a third class, where the yields of the farm equalled the average and ranged up to 10 per cent. over the average of the district, the labor income was \$596; and in a fourth class, where the yields of the crops were 20 per cent. above average, the labor income was \$1,231.

This is the story in Ontario. Now across in Ohio investigations were carried on in 1918 on 67 farms, and it was found that where yields were poor the value of crops per day of labor amounted to \$11.92; where the yields were fair this was increased to \$15.01, while where yields were good the total value was \$18.01. A similar investigation for another county showed that where yields were above the average, the labor income was \$769, while where they were below the average the labor income was only \$393 a year. Quoting the report:

"In Scioto County last year (1919) 36 farmers raised an average of \$2,855 worth of crops from 65 acres; the most profitable five of these farms averaged \$3,445 worth on 62 acres. The average amount spent for manure and fertilizer was only \$130, while on the most profitable five the average expenditure for manure and fertilizer was \$226. Good crop yields are fundamental in the farming business. Though the farming is strong in all phases except crop yields, the results will be limited."

The reason for the difference in labor income, of course, is obvious. Low yields always mean high production costs. The farmer who studies carefully his crop yields in relation to his farm business, and who weighs costs of securing high yields against increased returns, usually finds that large yields give better returns for

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been locked up in the mustard crops and the amount of both moisture and plantfood robbed by this means.

Wild mustard has been successfully killed by spraying with sulphate of iron. The success of the method depends upon how carefully it is carried out. Speaking generally, the spray should be applied with machinery that will divide it as finely as possible and drive it right into the plant. The amount recommended is about 52 gals. to the acre, under a pressure of 80 to 100 lbs. as measured at the nozzle. In order to get proper strength, empty a 100-lb. sack of sulphate of iron into a wooden barrel; fill the barrel with water, stirring the solution with a board until the iron sulphate is dissolved; strain the solution through several thicknesses of cheesecloth when putting it into the spray barrel. The spray may temporarily turn the tips of the young grain plant dark. It will kill the mustard almost entirely, and the grain will quickly recover itself and make normal good growth.

In order to be successful, the spray must be applied before the crops are too far advanced.

We have noted that considerable mustard seed has germinated during the long warm days of 1920. This is a promising, especially in it of advantage if fall plowing has been done or if the surface of the fields covered with the young sprouting mustard have been disked lately or harrowed, exposing the young germinating plant to the frost which must soon cut short the growing season. The promise under these conditions for next year would be for less mustard. However, if the mustard plants appear, the crops should be sprayed.

Milk Route Joys.

Anna Peterson, not being a milkman might be called a milk-woman. Every morning she markets the milk from her cows. She inherited a mortgage farm and with it the care of a crippled brother and two little sisters. Now she has a fine herd of grade cows with a pure-bred sire and well-cultivated fields which produce good crops.

The bottles of milk are carried in a detachable box attached to her car. The last time I met her she called, "Want a lift?"

"No thank you," I answered, "I'm reducing. What's the matter? You look blue."

"This must be my hoo-doo day! Most mornings the sunrise is lovely and folks have a cheerful word for me but this morning a new customer scolded because yesterday's milk soured. She gave me a dirty bottle and I said it was not mine. 'Well,' she said, 'I put kerosene in yours and you'll have to take this one.' Another customer cannot afford milk any more since it has gone up another cent a quart. 'And one of my nicest customers is moving away.'"

It was nearly noon that same day when Anna's voice greeted me again. "I couldn't go home," she said, "without stopping to tell you how ashamed I am to have unloaded my worries on you this morning. I've been to the bank and paid the interest on

whom its doors were first opened, would be shut out. Compare Luke 13: 28, where this saying of Jesus is found in a different setting.

The word "pals" is from the same Greek source as "paralytic," and means the same thing. The sick man is said to have been grievously tormented, that is to say, he suffered great pain. It might have been "an acute case of spinal meningitis," or a case of "progressive paralysis with muscular spasms," affecting the breathing. In any case the miracle was a very remarkable one, and must have made a profound impression. Moreover it must have been made clear to the Jews about Him that Jesus would not confine His healing and saving power to them, but that He would recognize and reward true faith wherever He might find it.

8: 14; 9: 54. Other miracles. The house of Peter was visited by the same gracious and kindly power of healing, and his wife's mother was raised from a sick bed and restored to her household ministry. A temperance in Galilee was killed when the disciples found themselves in peril of sinking. Two maniacs, dwelling among the rock-hewn caves and tombs on the eastern side of the lake, were healed. Again, in Capernaum, a helpless paralytic, carried by his friends on a litter into the presence of Jesus, was made to stand up and walk, and was able himself to carry his bed back to his house. Most wonderful of all was the restoration to life of the ruler's daughter, when she had been pronounced dead, and the strange story of the sick woman who came behind Jesus in the throng, touched the border of His garment, and was healed. Blind men had their eyes opened, and a dumb man was made to speak.

In our time we have become so accustomed to depend upon the doctor, and the druggist, and the hospital, and the nurse, that we are in danger of forgetting the healing power of faith. And yet it is not just as true to-day as it ever was that "the prayer of faith shall save the sick?" We need as much as ever the lesson of Christ's healing ministry.

Confidence, and with hope, we must still pray for all those who minister to the sick, and for those who investigate, often with self-sacrificing persistence and toil, the causes of sickness, and the means of preventing and healing. But God's power works as surely through the skill of the physician and the science of medicine, as through the laying on of hands.

The Sunday School Lesson
NOVEMBER 14TH.

The Power and Authority of Jesus, St. Matthew 8 and 9. Golden Text, St. Matthew 9: 35.

8: 1-4. The Leper. See Mark 1: 40-44 and Luke, 5: 12-14. Leprosy was regarded as an unclean disease, and its victim was shut out of the community. The fate of the poor leper was indeed a sad one. No home was provided for him, and in many cases he became both an outcast and a beggar. Even to touch him was defilement, and if he entered a house he made it unclean. Recovery from the disease was rare, but the sufferer might live for eight or ten years, or even longer. The miracle of healing was, therefore, remarkable, and when told abroad, brought great multitudes to see and hear, and to be healed of their infirmities.

8: 5-13. The Centurion's Servant. See Luke 7: 1-10. The centurion was the captain of a company of a hundred men, that is the sixtieth part of a legion in the Roman army. This man may have been a native of Palestine. He was not a Jew, but Luke tells us that the elders of the Jews spoke well of him, saying, "He is worthy that thou shouldst do this for him; for he loveth our nation, and himself built a synagogue." Evidently the relation between this man and his servant was one of warm friendship and esteem. The disposition of some in our time to regard such a relationship as unjust and inhuman finds no warrant in the New Testament. The position of an trusted and valued servant is regarded as one of honor.

Luke says that, when he heard of Jesus, the centurion sent elders of the Jews to present his petition to Jesus, and that he himself did not come. Jesus went with them, and when He was approaching the house received a second deputation of the centurion's friends who brought the message of verse 5-9. No wonder Jesus marvelled at this man's faith. He believed that Jesus had unseen forces at His command, which He could send to do His bidding, just as he, a Roman officer, could send men go or come.

The faith of the Gentile led Jesus to think of those who would yet come into the Kingdom from all nations, from the east and west, and would enter into the company of the men of faith of former ages, while children of the kingdom, the Jewish people to

the mortgage. The very next place I called after leaving you, I found a note in the bottle ordering three quarters a day for a new neighbor. At another house, in an envelope tied to the neck of the bottle, was a cheque for the month's milk, a ticket for a concert to-morrow night and a note saying, 'The violinist is a countryman of yours and I hope you will enjoy the concert.' The violinist was brought up in the same village where my father lived in the old country. And I've never even seen the lady who gave me the ticket. Isn't it glorious? It makes me happy!"

Hoos

I am fully converted to the great feeding value of tankage in raising hogs. When first my attention was directed to it, I made a trial. The rapidity with which a sack disappeared completely scared me out. It seemed like a waste of good money to see a sack quickly disappear, and to hear the pigs squeal lustily for more. I concluded that corn, pasture, and ground feed was more in keeping with such insatiable appetites.

A year or so ago I told a neighbor of my experience. He laughed heartily.

"Give them all they want for a day or two," he advised, "and pretty soon they will become satisfied. After that they will eat moderately, provided you keep it before them all the time. Your pigs will grow twice as fast with tankage as without it."

I followed the neighbor's advice. Once the pigs had eaten their fill they ate moderately thereafter. Pigs thrive remarkably when they have all the tankage they want. Their digestions seem better, their hair is smoother, and they seem to eat much less other food. I am inclined to think, too, that they are less apt to become wormy. Neither do they root as much, my observation is that hogs that have all the tankage they desire will damage the pastures scarcely at all. Sows with pigs are not inclined to chase the chickens.

So convinced am I of the great value of tankage, that I would scarcely attempt to raise hogs without it. Even if it is high in price I find that the good it does far outweighs the cost. It will pay every farmer raising hogs to become acquainted with tankage. Unless I am greatly mistaken, those who try it for a short-time will never thereafter attempt to do without it.

Bedtime Stories

The Balloon.

I had a round and red balloon. All shining softly, like a moon; I danced it gaily to a tune Upon its slender string.

I waved it gently to and fro, I sailed it high, I pulled it low, When, in a wink, I let it go Upon its airy wing.

I watched it floating high and high Past tree and house, to cloud and sky; It seemed so glad to say goodbye And leave me wondering.

And I am sure, in those far lands Beyond the clouds, some sky child stands And reaches out, eager hands To catch my treasured thing.

What Happened to the Old Barn.

There were many things besides the pair of wheels, the box and the bean pole in a certain old Ontario barn. There were the tools, the harness and the workbenches, and dozens of farming implements; but this is a story of the wheels, the box and the bean pole.

The barn was no longer used to shelter horses. The man of the house was too old to do farm work, but he pattered round the place and took care of the garden and kept everything in order. One still moonlight night the objects in the silent old barn began to talk to one another.

"I wish you wouldn't lean against us so hard," said the pair of wheels crossly to a ladder. "We were not built strong enough to stand a very great weight."

"Is that so?" said the ladder in surprise. "Then what were you built for, may I ask?"

"We were part of a baby carriage," one of the wheels replied, "and a very beautiful carriage it was, too—of fine willow and lined with lovely green velvet. When the baby went riding, dressed in his best, everyone stared at us. But the carriage wore out, and then we were taken off and put out here!" he sniffed—"with this crowd of common things."

"That sounds very fine," remarked a box, "but you haven't traveled very much. Look at me: I came all the way from Cuba with a load of oranges."

Since none of the objects in the barn had ever heard of Cuba they kept still for a moment, trying to think of something to say. Far over in a dim corner stood a bean pole, rough and untrimmed, just as it had been, out in the woods. There had been many other bean poles in that corner, but from time to time the man had come in and carried them away for use in his garden.

"How fine to be beautiful and

YOUR PROBLEMS

BY MRS. HELEN LAW

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A Business Girl: 1. The bridegroom and groomsmen, preceded by the minister, enter from the chancel just as the wedding march begins and await the bride procession. If there are ushers they lead the procession two by two, followed by the bridesmaid. The bride comes last, leaning on her father's arm. After the benediction is pronounced, the newly made husband and wife arise from their knees, are congratulated by the minister, then turn to leave the altar; the organist plays a wedding march, the married pair, arm in arm, pass down the aisle, followed by the groomsmen with the bridesmaid. 2. At a mid-day church wedding the bridegroom and his attendants should wear a black morning frock coat with grey trousers, white tie and pearl-grey gloves.

Bessie: Do I think it all right for a girl to dance with a boy she has not met? By all means, no. Introductions are empty society's safeguards. I do not endorse them merely because Mrs. Grundy says we should; they are the protection every girl and every man, too, is entitled to, otherwise they would be at the mercy of every stranger who wished to make their acquaintance. Tell the young man who begs for a dance and to whom you have not been formally presented, that he must get someone to introduce him to you; he will respect you all the more and better still, you will respect yourself.

Maid Marion: That you do not wish to speak to the sisters of your former fiancé, sounds to me as if you were visiting your disappointment in this young man upon them, whereas they have been quite innocent in the whole matter. Speaking to another person is such a small courtesy, that it seems a shame to withhold it and I do not think we are ever justified in discourtesy no matter what may have been done to us. Our hearts should be big enough to take in everybody. We should never shut anyone out of our life without reason.

Bride's Mother: What refreshments would you advise for an afternoon wedding, and how should they be served?

If guests are to be seated at the table you can serve clam or tomato bouillon, broiled or brown fricasseed chicken, peas, creamed or mashed potatoes, rolls, olives, oysters and salted peanuts. The table is set with the necessary silver and glass; a little paper cup holding the salted nuts and a roll at each plate. When this is removed, serve the chicken, which should have been separated and jointed. A piece of chicken, a serving of peas and a serving of potatoes can be placed on each plate in the kitchen, ready to serve. Guests are supposed to help themselves to olives and celery which have been placed on the table. Additional rolls and the vegetables can be passed for a second helping. If ice-cream is not available, serve fruit gelatine with whipped cream, little cakes, coffee and cream pepper-mints.

When guests can not be seated, serve hot consommé in cups, accompanied by salted crackers, creamed chicken in paper cases, celery salads, rolls, ice-cream, cake and coffee. If oysters are obtainable, serve creamed oysters and chicken salad. The paper case containing chicken or oysters is placed on a plate, with a serving of salad and a roll beside it. A fork is laid across the plate and it is then ready to serve. Follow this course with ice-cream, cake and coffee. The table should have, besides its decorations, piles of napkins, plates containing the cakes, dishes of salted nuts and bonbons. Napkins are handed to the guests as they take their places.

Beginner: Shall I thank the boy who brings me a box of candy, and should I open it right away?

Why should you not thank the boy who brings you a box of candy? Remember always that it is discourteous not to show appreciation of kindness and that every gracious act should be received with thanks. When a box of candy is presented to you, you can say, "For me?" How kind, thank you so much," or something similar. Open the box by all means and pass it to the donor before taking a piece of candy yourself. Boys expect to help out the candy they bring with them; even if they did not, it would be most discourteous not to offer it.

Schoolgirl: I am so sorry you are having trouble with your teacher. It means everything to you to start the school year right. This is one of the cases in which it is wise to change your mental attitude. I know your teacher has no special grudge against you and if you will only say to yourself "I WILL like her," you will actually find your antagonism melting. Do something nice for her, take her something from home, make it a business to be thoughtful to her. And keep in mind that you will be the loser, not she, if you cease your schooling.

travel!" the bean pole murmured timidly.

The box gave a squeaky laugh. "It's safe to say, bean pole, that you will never travel much," he answered. "No farther than the garden yonder."

But the bean pole made no reply.

The next day a little city boy came to stay at the old house. He had had few playmates in his short life, and even fewer playthings. When he caught sight of the big two-horse wagon in the outer shed he gave a sigh.

"I wish I had a wagon," he said.

"That set the man to thinking. Why should not the boy have a wagon? He went to the barn and looked round. The boy watched him.

"There might be the making of a wagon here," the man said to himself, the boy, overhearing him, gave a skip and a jump.

The wheels were chosen first, as they were ever afterwards proud to remember.

"With the little paint," he said, "that would be fine."

The box thought privately that it was fine just as it was, all covered with pictures of orange groves; but it said nothing.

"Take this to the pump and scrape off the pictures," the man said. So the boy took the box away and scraped and scraped until it was entirely bare. Then he stood it beside the wheels.

"We shall need a handle next," said the man. "And here it is." With that he walked over to the corner and picked up the bean pole.

"My!" said the wheels in surprise. "What on earth can he do with the bean pole?"

Even the boy looked puzzled. "Isn't that too rough for a handle?" he asked.

"Rough things are sometimes fine things," said the man.

He fastened the bean pole in a vise and began to draw a sharp spokeshave along the length of it. The boy, watching eagerly, saw the bark curl up and drop to the floor in little coils.

Round and round, from one end to

the other, the man drew the spokeshave. Now and then he passed his thumb slowly over the surface of the pole. "There mustn't be even a sliver left," he said.

Even after the wood looked white and smooth he was not satisfied. He brought some sandpaper from the house and smoothed and smoothed the pole until it shone and glistened. When he had done no one would have guessed that the slim white handle had once been a bean pole.

Afterwards the man found some bolts and fastened the wheels and the handle to the box. At the end of the handle he fastened a little crosspiece of wood.

"It is a real, real wagon!" cried the boy.

"Wait a minute," the man said. "The handle is perfect, but the box and the wheels need something more." Then he varnished the box and the spokes of the wheels and set the wagon in a corner to dry. When it was quite dry the boy drew it up and down all over the place.

"What a beautiful handle," remarked some one, meeting him.

"It was just a common bean pole once," the boy replied.

"Well," said the wheels to the box, as the wagon moved on, "you never can tell what may happen to people in this world."

Our country's future depends largely upon the preparation we give our children for the responsibilities which will soon be theirs.

A mixture prepared as follows will keep the agricultural implements from rusting: Melt together lard and powdered resin, one part of the latter to three of the former, and if it is desired add a little lampblack. Paint the iron or steel with a brush.

African stock-feeders know the value of corn silage for fattening cattle. Much of the work there is done with oxen, and the old oxen are fattened for beef. Silage is used in fattening them.

The prophet of cheer makes life richer and brighter and more hopeful. He is always winsome and attractive to boys and girls and, somehow, he never seems to lose his attraction for us gray-headed farmers. There is always a chair at our griddles and a place in our hearts for the prophet of cheer.

YOU MUST TAKE SIDES

"He that is not with Me is against Me," said the Master of men.

Neutrality is inaction. Inaction to be negative means to be against a thing. When Christ said that one to be for Him or against Him, was stating something that two thousand years have proved to be so. In one of His short parables He pictures with fearful power what happens when a man is determined not to take one side or the other. A man had been stung of demon possession. He decided not to seek God and live a positive religious life. He would get along, take life easy, not join either the religious party or the godless group. But he could not do it. The soul is not a vacuum. One cannot pump it empty as he can a glass jar in a physics laboratory. It will be concerned with something, if nothing more than the wildest superstition. And Christ states that presently the expelled demon returns to that man's soul, finds it empty, and re-enters. And when he re-enters he brings other demons with him, until the deluded wretch is worse than he was before. When a great cause goes by, and we do not take sides, we are weaker, less worthy, than we were before. Some of the most pathetic scenes in the Bible are scenes where men wanted to declare themselves, but did not dare, and afterward tried to atone for their neglect. There are Joseph and Arimathea and Nicodemus, members of the council and secret believers. They wanted to save Christ from His enemies, but did not dare run counter to the passion and hate of the other leaders. After Christ's death they come with spices and anoint the body, and lay it in the tomb. But loading a man's body with spices and perfume after he is dead is a poor substitute for red-blooded friendship when friendship is needed. On the other hand, look at that undying scene where Paul pleads before King Agrippa, and says he is not obedient to the heavenly vision. One scene like that is worth all the neutrality of a thousand years.

In many a country community to-day there are folks who ought to declare themselves. They ought to take sides, out and out. The church perhaps is small and unattractive, the preacher may not be the best in the land, and things are not one hundred per cent. plus. Why not enter into some branch of the church's work and make it go? Why not organize a class of young folks? The writer knew a woman that did this. She had the class come to her home frequently, on week nights. That class became one of the big factors for community betterment.

The farming fraternity has always had strong ideas as to what is right and wrong. When cities have lost their soul the country has kept its soul. But if this fast-growing organization is to maintain the same high levels of honesty that have characterized farmers in the past, it will be because leaders and members declare themselves for such principles. And will it not be a great day in Canadian business when a farmer's concern gets vast power into its hands, and still keeps the same code of honest dealing that farmers had in the old days? Some great firms have already done this, and it is a heartening story. To do it, they had to take sides and declare themselves.

The Prophet of Cheer.

His smiles and his prophecies go hand in hand, and they are both as welcome as the flowers in May. "Oh, yes," he says, "it storms to-day, but we shall have clearing weather to-morrow." He looks right through the darkest cloud to the golden sunshine beyond.

He has a wonderful knack of looking at a mountain of difficulty from its most accessible side. "Yes, sure, it's rather hard climbing, but you can make it," he says to some discouraged boy who faces unexpected difficulties, and he pats him on the back.

"Yes, my crop's a little dry now," he says, "but there's a cloud coming up, and I guess the Lord'll water that field of corn for me yet." This is one reason why I love the prophet of good cheer; he never begins to lament, and say, "Spilled milk," before it even commences to slop over.

The prophet of cheer believes in finding the honey on the farm and in the life of life. He sees the best in every neighbor. He understands boys and he makes the most cheerful prophecies concerning the most mischievous of them. Many a neighbor's boy has made good simply because the prophet of cheer had confidence in him.

The prophet of cheer never carries a gloomy countenance into a sick-room; neither does he bring some humorous bit of news, a smile, a warm hand-clasp. He says: "My! how much better you look to-day. You will be up again soon," when he can do so and not have his conscience trouble him in the noon of the night. He believes that sunshine—human sunshine—is good for a sick-room.

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