

## 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 when possible to send a stamped and addressed envelope to be enclosed with the question, when the answer will be mailed direct.



Q.—What results might I expect from sowing flax with my oat seed when sowing it in the spring? Can I put the flax seed in the drill with the oats or will it have to be sown broadcast after the oats have been drilled? Also, will it mature with the oats or not? Any advice concerning the benefit of sowing this seed will be gladly received.

A.—Speaking generally, mixing flax with oats has not been found to be highly satisfactory. Professor Zavitz found that by mixing oats and barley in proportions of approximately a bushel of each and by adding 28 pounds of flax to the acre he obtained 2511 pounds of grain per acre in comparison of 2509 pounds per acre from the oats and barley without the flax. Flax straw can be fed to cattle without injurious results, but it is not highly nutritious and its use should be delayed until supplies of oat, barley and wheat straw have been exhausted. Flax seed should mature approximately with early oats. In sowing flax the seed is small and comparatively heavy. If sown in a mixture with barley and oats it will tend to run through the seed tubes too quickly. For best results then, the seed will have to be sown separately after the oats have been drilled. As a rule when grown for seed purposes two or three pecks of seed should be used per acre. When grown for fibre it is sown thicker, one and a half to two bushels of seed should be sown to the acre.

J. C.—I have five acres which have been sown for twelve to fifteen years. This field has been plowed. Two crops of good corn have been grown, then summer fallow and sown to wheat. The piece was top-dressed with manure, 200 pounds of phosphate put on per acre with the wheat. A fine piece of wheat was harvested this past year. Now I wish to seed this ground to alfalfa. I wish you direct me to the proper manner of seeding? Also had best test the soil for acid condition? Can I take the frozen lumps by thawing them in the house and get a satisfactory test? In regard to the oats, I am anticipating sowing the Worthy brand of oats as they have been recommended to me. Would you recommend them for my ground which is of the moderate clay loam soil, which is very fertile? Also the proper place to rest them. I have a neighbor who has the same which yielded only 30 bushels per acre this past season. Would it be wise to use his seed?



INTERNATIONAL LESSON  
APRIL 21.

Lesson III. Jesus Transfigured—  
Mark 9. 2-10. Golden  
Text, Mark 9. 7.

Verse 2. After six days—Luke says "about eight days after." Peter, and James, and John—The same inner circle of friends who accompanied him into the death chamber in the house of Caiaphas, and who at the last went with him into Gethsemane. The deepest secrets of his person and his work he will share with them. A high mountain—Some have said the Mount of Olives, others that they heard the voice of the Lord in the place. The best scholars now conclude in favor of Mount Hermon, which rises nine thousand feet, a few hours from Caesarea Philippi. Transfigured—Luke tells us that the change came over him when he was praying. It is described in Matthew and Mark as a transformation. Luke says the fashion of his countenance was altered. All of which tells that upon his face was an unusual "glory," an indication of supreme exaltation of spirit.

3. His garments became glistening—"Dazzling" says Luke. Exceeding white—"As snow" says the King James Version. Nothing can exceed the dazzling brilliancy of the snow on Hermon in the sunlight.

4. There appeared unto them Elijah with Moses. Representing the prophets and the law. The two earlier dispensations bearing witness to the Messiah. Talking with Jesus—Luke states that they talked with him "of his decease which he was about to accomplish at Jerusalem." Jesus had only recently begun to speak about his sufferings and death.

Answer:—In preparing your seed bed for alfalfa I would advise you to test the soil for acidity or sourness. You can do this by digging a hole 4 to 5 inches deep in various parts of the field while the soil is damp. Bury a small piece of blue litmus paper in each hole and leave it there for twenty minutes to half an hour. When you dig it up if the paper has turned pink this indicates sourness of soil. If you find such to be the case, apply at least a ton of ground limestone or half a ton of air-slaked burnt lime to the acre. This could be scattered evenly on the plowed ground or worked into the soil by harrowing, a couple of weeks before you are ready to seed the crop.

When it comes to seeding the alfalfa precede the sowing of it by manuring the land with 4 to 5 tons of well rotted manure to the acre. This should be distributed as evenly as possible and worked into the soil by harrowing and disking. If you do not have a sufficient supply of manure excellent results can be obtained by applying 200 to 300 pounds of fertilizer, carrying from 2 to 4 per cent. ammonia, 6 to 8 per cent. phosphoric acid and 1 per cent. potash. This fertilizer should be distributed much the same as lime and worked into the seed bed in similar way. Do not put it on at the same time as you apply lime, since fresh lime will tend to make some of the plant food of the fertilizer unavailable. Following the above preparation of soil, drill in the alfalfa seed carefully, with a bushel to a bush and a half of barley to the acre as nurse crop. Having the barley cut gives the alfalfa good chance to make growth in preparation for the coming winter, unless it has made a very heavy top-growth by autumn. Do not cut it. The extra protection of a medium heavy top-growth will do a great deal to help it through the first winter.

I do not know the "Worthy" oat, hence cannot pass any intelligent opinion on it. There are so many excellent varieties recommended that I would hesitate to use any but those which have been established as good varieties both through experience at Guelph and tests throughout the province. Professor Zavitz at the 1917 meeting of Experimental Union reported the following varieties as most productive in tests throughout Ontario: O.A.C. No. 72, and O. A. C. No. 3. These are specially selected oats of superior merit developed on the College Experimental ground.

the tops of their flat-roofed houses, in the warmest weather.

6. He knew not what to answer—Here was something entirely outside of his experience. He was dazed with the unusual glory and mystery.

7. There came a cloud—Even while he was speaking (Matthew) the cloud overshadowed them all. "They feared as they entered the cloud" (Luke). We recall that the cloud in the Old Testament appears in connection with special manifestations of God, as in the Wilderness (Exod. 16. 10; 19. 9; 24. 15) and at the dedication of the temple (1 Kings 8. 10). A voice out of the cloud—At the baptism of Jesus there was heard also a voice. All three of the synoptists report the same, with the "hear ye him." As much as to say, ye have heard Moses and the prophets, their dispensations have passed, now has come the new dispensation, that of the Christ, who is the inaugurator of the new era of the kingdom of God. According to Luke, when they heard the voice the three disciples fell on their faces through fear, and Jesus touched them and said, "Arise, and be not afraid."

8. Suddenly looking round about, they saw no one save Jesus only—The manifestation vanished as suddenly as it had appeared and now they were alone, as before, with Jesus.

Attempts have been made to explain away this account as a fraud, as an imaginative version of merely natural phenomena, as a myth, but here we have the united testimony of three accounts, each of which has its own marks of independence, and one of which is the recollection of an eyewitness (Peter).

Blessings.  
Well-blessed is he who counts among his store  
Health; and the comfort of a steadfast friend,  
A cheerful home, a heart of deep content,  
A sunny garden spot to dig and tend.  
More blest is he who adds to these the joy

Of work that leads him to his Heart's Desire,  
A little child to prattle at his gate,  
A dear gray head to crown his evening fire.

The simplest way to prevent the accumulation of dirt is to make it easier to be clean than to be dirty.

## CARE OF HORSES DURING BUSY SEASON

By T. J. Mathews.

On every farm where horse flesh is the motive power, there is one problem that comes once a year, namely, the preparation of the teams so that they can stand the hard work of spring and summer without a blemish resulting, such that the value of the horse is not greatly decreased and the ease of working it greatly increased. One of the first teams I ever drove had in it an ugly horse and his disposition had been thus rearranged because somebody had some time erred in not having him properly hardened when he started in with the spring work. This horse was a big fellow, abundantly able to work, but the moment the least break in the skin came on either one of his shoulders, the only way he could be put into the collar was to buckle it and slip it on over his head. Even at that he would do considerable jolting about when the harness was put on him and of all the unpleasant beasts to work, this horse beat everything I ever tried. He never would take hold until the other horse started the load, and all this might have been averted by a little judicious care in handling. I know this to be a fact because neighbors who knew the conditions said so.

Then there are hundreds of horses that have shoulders that will never be fit to work until there has been an operation performed and part of the shoulder is sore, in healing up there is bound to be some scar tissue formed and the more the shoulder is affected, the more scar tissue is formed and in the end we have a great ill-shaped portion of flesh and hide that it is practically impossible for the horse to use in handling and a sore shoulder is pretty likely to cause one or the other; a poor hauler or a poor disposition.

This condition can, in most cases, be greatly relieved by hardening a horse into the work. Usually one of the first jobs the team is put at is that of hauling manure and if there is any heavier job than hauling a manure spreader in the early spring, I have it yet to see. The fact that the heavy hauling lasts for only a short while does not particularly alter the question. Blisters may be put on tender hands in ten minutes while if the same work was spread over two hours it would have no effect whatever, so in hardening the horses into work it is

better to give them light work for long periods rather than severe work for short periods. Light work stretched over a week or ten days will usually put the teams in good condition for their spring's work. If this does not seem to harden the muscles rapidly enough, the shoulders may be bathed every night in tan bark tea where hemlock bark may be had. A good strong table tea will also do the same thing, or an alum water solution is often of value.

The collar that fits a horse is the most imperative of all. No amount of washing or hardening will make a misfitting collar fit. The collar should be of the right size and adjusted so that the point of draft will be just a little above the shoulder point. Pads on collars usually do but little good. When a rough plow handle blisters our hands we do not usually put on canvas gloves. Rather, we get out the draw shave and some sandpaper and make the handles smoother. In this connection I have used the solid stove blacking to rub onto the wearing surfaces of the collar every morning to make it smoother. We have a silver cup that belonged to the first baby in the family and we call that the Trophy Cup. If we decide to have a week's Rooster tournament the cup belongs for twenty-four hours to the winner of the last game and he usually uses it to drink out of at meals and taunt the losers!

I have a way of clipping out games which I find described in magazines and now and then when the children begin to get fussy among themselves because they are tired of the old games, I spring a new one on them. Blind Bull is simple. We all blind fold except one who has a little bell and it is our job to catch her if we can. We do this in our big living room sometimes but have more fun in

the barn where there is nothing to break. When we play Blind Bull in the living room the players have to promise to do their part to rearrange the furniture which is pushed out of the way.

Mrs. Brown:—In reply to your query the following scale may somewhat surprise you. It shows that despite Canada's natural advantages of soil, German farmers harvest between one-half and two-thirds more bushels per acre than do the Canadian farmers.

Germany Canada  
Bushels per acre Bushels per acre

Wheat ..... 35.1 21.04  
Rye ..... 30.4 19.28  
Barley ..... 41.3 29.96  
Oats ..... 61.1 38.98  
Potatoes ..... 235.8 165.88

Farmer's Wife:—The boys of Canada are responding magnificently to the call from the farms. The S.O.S. has not been in vain. They are lining up in all the Provinces and it is expected that the original estimate of 25,000 will be far surpassed. In several towns and cities in Ontario 100 per cent. of the eligible students in the high schools and collegiate institutes are reported as having enrolled. The farmer and his wife need no fear of lacking help so long as all those eager young boys with their vitality and their enthusiasm are on hand.

seven letters. "You left out C, who's always been in the family. And you let in this fellow Q in his place."

"But isn't that right?" asked Patty. "With that, Q pushed C backward off the foot rail and settled himself in the space. The seven letters wriggled and twisted to get away from the intruder with the little curly foot, until the row looked like this:

P E C U L I A R  
The next minute C came climbing back. He caught Q by his beautiful curly foot and pulled him out of the row.

"Oh, I wish you wouldn't quarrel!" said Patty. "Everybody seems to prefer C, so if Q would stay out, perhaps—"

As she spoke, the seven letters straightened themselves, with C in the space. And the row looked like this:

P E C U L I A R  
"How do we look now?" cried the eight letters.

"Not any particular way," said Patty. "Just—peculiar."

"Right!" said the eight letters, with satisfaction.

"But what about me?" cried Q. "Can't I be in Peculiar any more?"

"I'm afraid not," said Patty. "But they'd love to have you in Queer."

"How do they spell it?" asked Q. "You come first," Patty told him, "with A and two E's and an R."

Sure enough, more letters came scrambling up the bedposts. Q ran to join them as they settled upon the foot rail. So now the row looked like this:

P E C U L I A R Q U E E R  
"You're different," Patty said thoughtfully. "Yet some way you seem alike."

"How peculiar!" said the eight letters.

"How queer!" said the five letters.

"Don't mix us up again," said all the letters together. "Now mind, Patty!"

"I shall mind my C's and Q's," said Patty.

A Knitting Song.  
Over and under, up and through,  
Stitch upon stick in the lengthening rows,  
Yarn of khaki or yarn of blue,  
Day after day the knitting grows.

Who is the one shall wear my work?  
Lad of Canada, lad of France?  
Pray he be young with eyes of blue  
And the eagle's look in his steady glance,  
Into the stitches I will weave  
Prayers of a woman's tenderness,  
Whispers of hope and high desire,  
Holy thoughts that shall guard and bless.

Till they shall fold him and shield him from harms  
Like the loving clasp of a mother's arms.  
Over and under, hopes and fears,  
We weave our hearts with the yarn of gray.  
Love and sacrifice, triumph and tears,  
Row upon row the living day.

Who is the one shall wear my work?  
Soldier of England or Italy's strand?  
Pray he be steady and strong of soul,  
Lost in the mists of no man's land.  
Pray he be gentle with maidens all  
For the sake of her who is knitting here.

Kill as he must, but not in hate,  
Battling with wrong till the right appear.  
Stitches of mine, weave holy charms  
To guard him body and soul from harms!

—Grace Atherton Dennen.



Mothers and daughters of all ages are cordially invited to write to this department. Initials only will be published with each question and its answer as a means of identification, but full name and address must be given in each letter. Write on one side of paper only. Answers will be mailed direct if stamped and addressed envelope is enclosed. Address all correspondence for this department to Mrs. Helen Law, 235 Woodbine Ave., Toronto.

Mother of Four:—A correspondent sends in the following which may help to solve your problem:  
I have taught my four little people to play the simple game of Rooster.

If we can play out of doors, and that is much better for them, we draw a circle about ten feet in diameter. Two Roosters or players step into the ring with folded arms which must be kept folded while they are in the ring. If a child grows excited and unfolds his arms then he is "out." The object of the game is for these Roosters to shove each other out of the ring, hopping only on one foot and not using their arms. I always give a prize. We have a silver cup that belonged to the first baby in the family and we call that the Trophy Cup. If we decide to have a week's Rooster tournament the cup belongs for twenty-four hours to the winner of the last game and he usually uses it to drink out of at meals and taunt the losers!

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Patty Spells "Peculiar"  
"I have such a peculiar feeling!" sighed Patty in a somewhat peculiar tone.

That was queer, for you see she was tucked snugly in bed, as she always was at night, and had nothing to do but to sleep. If she had been scrambling along the foot rail, or balancing on the bedposts, it would have been different. There cannot be anything peculiar about just being in bed!

The room was very still. Only the Street Lamp peeped in at the window, to see if Patty were not asleep yet. And nothing moved—except—

I thought I heard a sound, didn't you?

Goodness! Something was scrambling along the foot rail, and more. Somethings were balancing on the bedposts. Such queer sorts of Somethings! No wonder that Patty felt peculiar!

"What is it?" cried Patty, and pulled up the covers, all ready to hide her head.

The Somethings kept right on scrambling and balancing, and paid no attention to Patty.

"They're aren't mice?" Patty asked the Street Lamp.

The Street Lamp was much amused. He threw a strong light over the Somethings, so that Patty might see for herself.

"Not mice," said Patty. "But they're so little—and stir—Why, I do believe they're Letters!"

The Letters stopped scrambling along the foot rail. You see, they had come to the middle of it. And they arranged themselves in a row. That is, seven of them did. Two more were shoving each other and quarreling, so that there was a row with a hole in it. No, it was not a doughnut straightened out, as perhaps you might think, for it looked like this:

P E C U L I A R  
"What are you?" cried Patty.

"We used to be a word," the seven Letters said sternly. "And now look at us!"

"You look," said Patty, "you look sort of—peculiar."

"Only 'sort of'!" cried the seven Letters indignantly. "And it's all your fault, Miss Patty."

"Mine?" cried Patty.

She saw now that the other two Letters were a C and a Q. Both wanted to get into the space left in the row. And each was trying to keep the other out.

"I wish you wouldn't quarrel," said Patty. "There's plenty of room for both of you."

As she spoke, the two Letters crowded together into the space, just as close as they could stand, so that the row looked like this:

P E C U L I A R  
"Much you know about it!" shouted the seven Letters. "We're a word of eight Letters, not nine. And we were always happy till to-day."

"What happened to-day?" Patty asked.

"The teacher told you to spell us," said the seven Letters. "And you spelled us wrong."

Patty felt dreadfully ashamed. She turned so red that even the Street Lamp noticed it.

"I didn't do it on purpose," she stammered.

"What's that to us?" said the

## COMPENSATIONS

It must be terribly depressing to reach middle life and never to have done any of the things you planned to do when you started out fresh, why, just yesterday, wasn't it? I imagine it gives one a terrible sinking sensation to awake with a start on some birthday with the thought,

"Why, here I'm half through, and I haven't yet even got nicely started on the work I meant to do."

Yet I believe that's the experience of all but a very small per cent. of folks, basing my belief on actual conversations with men and women who have passed the half-way post. For no matter what our friends may think of our success, we measure it ourselves by the things we meant to do. And who of us, even the one who seems most trifling, but started out with the highest ambitions? To me it is one of the best attributes of human nature, that we keep right on smilingly and hopefully, even after we know of a surety that our chances for realizing our fondest ambitions have vanished.

I am continually stumbling upon these little human life tragedies. There's one woman, in particular, that I would have sworn never had an idea in her life bigger than seeing a movie, or a desire that couldn't be satisfied with a box of chocolates or a pair of silk hose. Yet she had! I found that out when she showed me her greatest treasure one day, an old violin, of unquestioned worth, on which she plays a few simple melodies. All her life she has wanted to study violin. Her father might have paid for lessons, but he didn't believe in too much foolery for girls. In fact, he didn't believe much in girls, anyway, and when she was thirteen he decided she was old enough to earn her own living. She married at twenty, a man who, while he'd like to give her her chance, has never been able. There are two children who take all the money which might have gone for music. So the violin has stood unused until this winter when her boy began to study. Now she is watching to see if her ambition will be realized in him. For herself, it is simply a dream, a thing she planned to do, back there in youth, but now has given up forever.

She has taken it in good part, as one of the things that had to be, and must not be allowed to spoil her life. But there are others who take their disappointments differently. Women and men, too, who rail at the abject of destinies, and will not be content to give up and accept what life offers instead of what they crave. They are the one who try to force sons and daughters into careers against their nature, because that is the thing the father or the mother wanted to do. Happy indeed is the parent, whose child follows out the thwarted desire of the older life. But what if the parent who, if the child's nature points otherwise, lets the younger life develop true to form.

It's a sad thing to reach middle life with unrealized ambitions. But after all, middle age has its compensations. If you have lost your enthusiasms and illusions, at least you have learned your limitations, which is a consummation devoutly to be desired. Doubtless the things you wanted to do, you couldn't have done anyway, even if fate had vouchsafed you a chance to try. Just because you have a sweet parlor voice, is no reason to think you might have become a prima donna if you'd had the money to cultivate your voice. And when you get to be forty and your voice breaks, you begin to see that. You may be able to write a good paper for the club, too, but that's no reason to think you might become a second George Eliot if someone else would wash the dishes and do the cooking and leave you free to write.

I've always had a feeling that very, very few of us miss our real "chance" in life. That what we consider our vocation is usually only a dream, and that we are actually engaged in doing is the thing for which we are best fitted, or at least the thing which is most needed by the world. We may feel that we should be writing learned magazine articles, or thrilling audiences with our voice, or taking the part of great tragedy queens, or heading important committees, but if we are, instead, in the kitchen or bringing up children, that is because the world needs more cooks and mothers and fewer public characters.

Middle life usually brings us this clearer vision. So if our physical eyes fail us the thing is balanced by our brighter spiritual sight.—D.H.

Buttermilk a Good Spring Tonic.  
Buttermilk is a dairy by-product the food value of which is often underestimated. Buttermilk produced by the manufacture of good butter from a good quality of well-ripened cream is one of the most healthful foods obtainable. Its healthfulness is derived from the lactic acid present. This is formed when a certain type of bacteria, called the "bacterium lactic acid," converts the milk sugar into lactic acid. These bacteria are always present in normal milk and cream, and this process of forming lactic acid is the natural souring of milk, and is known as cream ripening. Buttermilk is an excellent food, and probably most of it is being used for this purpose; but it should be more universally used as a human food.