

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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C. P.: At what stage should a mixture of oats and peas be cut for hay to get the best results for horse feed?

Answer: Peas and oats should be cut just as the oats are beginning to shoot head, in order to make the best mixture of hay. In feeding this to horses you will have to be very careful, since this feed is relatively rich in protein. If you overfeed your horses with this constituent of food they will tend to develop kidney trouble unless they are at continuous heavy work.

H. H.: I am plowing three acres that is mostly light sand. I have asked several farmers about it and some say one thing and some another. One farmer told me that if I would put twenty pounds of vetch and one bushel of oats to the acre any time this month, it would make good hay. Does that make good hay for horses? If not, what would you advise me to sow on the three acres to make hay? Does sand vetch make good cow feed?

Answer: By the time you receive the answer to your question it is probable that the best crop for you to grow for hay will be millet. Of course peas and oats make exceedingly good hay, but the middle of July will be altogether too late to sow this mixture for hay this year. Millet hay will have to be fed exclusively for a long period it tends to develop lameness and general muscular trouble. It should be fed with a mixture of other material, especially a judicious amount of concentrates, such as oats. In sowing millet thirty pounds to the acre is sufficient if the seed is of good quality.

W. G. B.: What is the best way to kill ground ivy which is spreading over my lawn all the time?

Answer: To kill ground ivy, if the weed is concentrated in certain parts of your lawn, apply salt heavily over the surface of these areas. This will

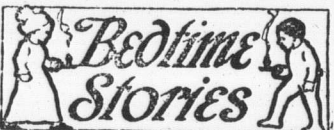
kill both the ivy and grass. The patches should then be thoroughly raked and the roots of the weed should be dug up. After this thoroughly sprinkle the patches so as to wash the excess salt out and re-seed to good grass. If the ground ivy completely covers your lawn it will be necessary to dig up the lawn and give it one summer's thorough cultivation in order to kill out this troublesome weed. Every bit of roots left should be raked out of the soil and destroyed.

A. L.: What is the best fertilizer for currant and raspberry bushes? The soil is gravelly and needs building up.

Answer: An exceedingly good fertilizer for currant and raspberry bushes is one carrying 3 to 5 per cent. ammonia and 10 to 12 per cent. available phosphoric acid. Apply this at the rate of 400 lbs. to the acre along the spaces between the bushes and canes, and work it in by cultivation.

A. J. C.: Can you tell me how to get rid of poison ivy and quack grass?

Answer: The first part of your question is answered above. It is very difficult to get rid of quack grass in any other way than by summer following the land that is effected. The quack grass land should be fall-plowed so as to turn the roots and root stalks up to the sun and frost. This should be followed in early spring by discing and harrowing every two or three weeks, so that the root stalks will not get a chance to make a firm attachment again. Each time the field is harrowed it will be well to go over it with a hay rake gathering together the root stalks so that they can be dried and burned. Some men find it good practice to follow this treatment by growing a smothering crop the following year, such as rape or buckwheat, seeding it very heavy in order that the growth may completely cover the ground. This smothering out any remaining stalks which may have been missed.



The Peddler Man.

Oh, if I were the peddler man
Who sells things in our town,
I shouldn't patch my ragged coat
With patches gray and brown.
I'd gather up the autumn leaves,
All splashed with gold and red,
And make my patches all so gay
I'd be a king instead!

Oh, if I had the peddler's bell
That makes a weary sound,
I'd ring it loud with might and main
Till people's hearts would bound,
And everybody in our town
Came dancing down the street—
And skip and turn and laugh aloud
To hear a song so sweet.

Oh, if I had the peddler's pack
Of sugar things and toys,
I shouldn't take the pennies from
The little girls and boys.
But I should give to every child,
And let the grown folks buy.
I wish I were the peddler man,
And he were merely I!

The Magic Bags.

This is an old, old story. Once upon a time there was a man who did a deal of traveling in the world, and on all of his journeys he carried two magic bags, one over his left shoulder and one over his right shoulder.

In the bag over his left shoulder he popped all the pleasant words that people said to him, all the cheery, gentle speeches, all the smiles and happy songs and good-natured, jolly remarks that came his way. And he carried this bag over his left shoulder, for he wanted these good things near to his heart.

In the other bag he dropped all the cross words that people growled at him, all the frowns and scowls and scoldings, all the cruel mocking speeches that he heard on his journeys. This bag he carried on his right shoulder and in the bottom, deens and ducks, he cut a great big hole so that as fast as the cross words fell in at the top they fell out the hole and were lost. Which is exactly what he wanted them to be.

So this old traveler, no matter how far he journeyed, was always happy and light-hearted, for the bag that he carried over his left shoulder puffed up like a balloon and carried him along as if he were a feather. And as the cross words were lost as soon as they dropped into his other bag he never had them weighing upon his heart or making him sad.

We are all travelers in this big world, and we all have two bags to carry with us. Did you know that? Only we carry them in our heads. And into one we should drop all the

cross words and temporary speeches, and that bag we should call our forgetting bag. And the other bag is our remembering bag, and into that we want to pop all the good, pleasant, jolly things we hear and the cheerful thoughts and happy songs, because that is the bag that will puff up like a fairy balloon and carry us over all the hard spots on our journey.

And we want to give other folks only pleasant, happy words to store away in their remembering bag and none at all to drop into their forgettery one. And be sure, sure, SURE that your remembering bag is whole and strong so none of the sunshiny words will escape, and be sure, sure, SURE that your forgetting bag has a big hole in so all the cross and disagreeable words can fall out. Will you?

Remember the good
And forget the bad,
Make every one happy
And nobody sad!

Exportation of Eggs.

A valuable trade has sprung up in recent years in the exportation of eggs. In order to encourage and conserve this trade under the provisions of the Live Stock and Live Stock Products Act, the Dominion is divided in two sections, east and west, for the carrying on of a thoroughgoing inspection service. Ontario, east of Port Arthur, Quebec and the Maritime Provinces, constitute the eastern section and all west of the Great Lakes the western. For the eleven months of last year extending from January 1 to November 30, 334,111 cases of eggs were inspected, of which 148,668 cases were consigned to Great Britain. It has been found that inspection is often requested by shippers not only for the export but also for the domestic trade. Inspection is by approval, the shipper being required to candle and grade the eggs according to the Canadian standards, marking the cases with the class and grade of the contents. Inspection is then made on requisition. If the shipment is found properly graded a certificate of approval is issued and the case officially marked. Inspectors at seaboard are advised of shipments going their way and they are required to report conditions on arrival, supervise methods of handling and stowing on shipboard and keep track of marketing conditions. Steps are also being taken for the better control of eggs imported into Canada.

Concrete floors, or any other kind for that matter, should always be well bedded so as to keep the cow dry and her udder from coming in contact with the cold floor. It is a wise provision to lay on top of the cement a wooden grating, cork brick, or cross-hatched wood blocks.

Fruits and Vegetables.

Most of the care of the growing crop will have been over before this article appears, but sometimes attention towards the end of the season will save a crop or increase the yield.

If the season is favorable for the development of the apple scab in the latter part of the summer, an extra spray will make a marked difference in the quality of the fruit. The spraying of currants with Bordeaux mixture to prevent diseases of the leaves which appear in late summer should be done before the foliage is injured. The early dropping of leaves for currants on account of disease lessens the yield for the following year.

Celery should be kept well sprayed with Bordeaux mixture until it is dry, to ensure it against disease, and the tops of potatoes also must be protected with it to the end of the growing season to prevent late blight.

Home-grown seed is usually very satisfactory. As far as possible the best of each kind of vegetable should be saved for seed. To ensure having seed that will germinate well the next season, it is important to clean and dry the seed as soon as possible, and keep it dry until spring. Beans, peas and corn will soon lose their germinating power if they are damp. If cabbage begin to burst and it is not yet time to pull them, it is desirable to twist the plants so as to loosen them in the ground, thus checking the development of the cabbage. Once the cooler and moister weather of early autumn comes there will be little ripening of onions, and they are likely to go on growing rather than ripening, hence they should be pulled and cured while the days are not enough. While squash and pumpkins will keep for a time in the outhouse or cellar while the weather is comparatively warm, they should, on the approach of winter, be put in a warm room where the temperature will be 50 degrees F. or above, when they will keep much longer than if they are near freezing. If one has some cauliflower heads that are only partly developed, it is a good plan to dig the plants before they are injured by frost and heel them in the cellar, when one may have good cauliflowers some time.

When one has grape vines in the garden it is well to remember that the grape is one of the few fruits that do not improve after harvesting, if picked green, hence the importance of leaving grapes on the vine until thoroughly ripe, if possible. If frosts threaten before the grapes are ripe, it is desirable, where one has but a few vines, to protect them, as once frost is over there may be a long spell of warm weather, when the grapes will ripen. If the foliage is killed by frost the grapes do not ripen satisfactorily. successful, a number of herds having been accredited, while many others are under test. There is now an agreement between this country and the United States that cattle from accredited herds may enter either way,

without detention or test. Under the Municipal Tuberculosis Order, passed at Ottawa some years ago, and the more recently adopted Accredited Herd Plan, compensation is paid for animals officially slaughtered and the owners are permitted under regulation to realize whatever they can from the sale of the carcass.

Canada's Exports of Bacon.

During recent years, and particularly during the war period, Canada's export bacon trade developed very rapidly. This is proven by the fact that last year exports of bacon from the Dominion amounted in value to \$34,000,000 and that our killings of hogs in eight years doubled in number, while those of Denmark and Ireland decreased considerably. With the return to normal conditions, vigorous efforts will have to be made in order to maintain this position. The Live Stock Branch of the Dominion Department of Agriculture has entered upon a special campaign to stimulate the production of hogs of the bacon type. In co-operation with the provincial departments, an arrangement has been made to offer attractive prizes to members of boys' and girls' pig clubs who exhibit at local fairs, both for quality of product and ability in judging. Where such clubs do not exist, attempts at organization will be made. The idea is not only to stimulate and sustain production, but to circulate knowledge of actual market requirements and thus to create a standard type of bacon hog for the entire Dominion. When it is stated that the British market imports annually 500,000,000 pounds of bacon, understanding is possible of the value of the trade that is at stake. It is hardly necessary to suggest that the hearty co-operation of farmers and everyone interested is hoped for. Rules and regulations governing the competition may be obtained from the Dominion Live Stock Commissioner at Ottawa.

Precautions Against Bovine Tuberculosis.

A few years ago the United States breeders of pure-bred cattle, recognizing the necessity of more effective measures for the control of tuberculosis, arranged a conference with officials of the Bureau of Animal Industry at Washington, the result of which was the adoption of what is known as the accredited Herd Plan, meaning that the herd had been thoroughly tested and found entirely free from any symptoms of tuberculosis. The plan proved so successful—over a thousand herds being accredited in a brief period—that a decision was arrived at to adopt the system in Canada. Regulations were promulgated which came into force in September, 1919, and have proved gratifyingly

In building silt-basins in the tile drain have the bottom of the basin at least a foot below the level of the tile.

ENCOURAGING THE "SON TO SHINE"

The Spirit of Play Wisely Directed Produces Astonishing Results.

Not many years ago the thought prevailed that the wisdom of the ages could be obtained only from venerable sages. In other words, the individual would have to go through a process of ripening by age before he was considered a valuable asset to the community. But now, it seems that the tendency is toward the fulfillment of the prediction that "the child shall lead them."

Young men and young women now occupy positions of trust and responsibility. This makes it seem that the young of to-day have skipped years of experience which were deemed essential for developing good judgment in the world's activities. Young doctors, lawyers and other professional men no longer think it necessary to grow a mustache and beard to give them the appearance of age and ripened experience. In fact, the time of safety razors and barber shops is here, not only because of greater sanitation in the smooth shaven face, but also because to-day the endeavor is to keep young instead of trying to appear mature and sedate as quickly as possible.

That this is truly an age of youth is shown by the success of boys' and girls' work in rural communities. This work has changed many a young life from one of country drudgery to a life full of keen and happy interest in rural affairs. The will to do has come with a knowledge of the opportunity in rural communities for accomplishing things worth while. The young folks are rapidly learning that rewards of happiness as well as of material things come to those living in rural communities give greater satisfaction than do the rewards of city life.

Primarily the parents are supposed to be the educators of, and guides to their children, but with the development of civilization more and more of the child's education and preparation come from outside the family. At least, in the recent development of boys' and girls' club work parents have not been counselors of their children. In fact, it seems that now the child quite often leads the parent to better things. He may have shown through his work, ways to a better and a more profitable farming and to happier and more convenient homes. Nor should the older folks feel discouraged at this condition of affairs.

They should rather feel happy that the children have learned through education much that the parents gained through years of experience. They should feel pleased that, because of this advancement of civilization is likely to progress faster than it has. It should make men optimists, for one cannot view these things without feeling assured that the world is growing better every day.

As a duty to the children, the world, and to themselves, parents should encourage their children to undertake some kind of good work. They should stand behind the boy and girl and encourage them to greater efforts, for encouragement is the most potent stimulant to accomplishment. Many have become famous because they had someone to advise and encourage them. Others who were naturally capable have remained mediocre because they have had no words of approval from those in whom they had confidence. Emerson says, "The chief want in life is somebody who shall make us do the best we can." It therefore seems that one can do no greater thing for the future generation than to give co-operation and encouragement to the laudable ambitions of the young.

These boys and girls can be encouraged in their work by showing the results of their efforts to the public. The fairs and local shows furnish ideal places for making such exhibitions, since in these places the spirit of contest, one of the most compelling instincts of youth, prevails. The winning of an award brings honor to the boy or girl who makes the entry, and to be defeated will often stimulate greater determination for the next contest. The spirit of rivalry is always a great incentive to more earnest endeavor, especially among the younger people.

In view of the remarkable success attending the work among the boys and girls of the country, and the influence their work has had upon the older people, it truly seems that the old adage which has been repeated to the rising generation for centuries, and which reads, "Children should be seen and not heard," might well be changed to, "Parents, listen to what the children have to say." Anyhow, it would seem important that every parent do his or her utmost to encourage the "Son to Shine."

The Sunday School Lesson

JULY 17.

The Conversion of Saul, Acts 9: 1-19. Golden Text—1 Tim. 1: 15.

Connecting Links—Though Paul was seeking to find the true way of life as a Pharisee in strict observance of the law, and thought he was serving God in persecuting the Christians, he was not happy. He describes the experience of that period of his life in the seventh chapter of the Epistle to the Romans, an experience of discouragement and defeat leading almost to despair. The commandment (or law) "which was ordained to life," this, he says, he "found to be unto death." For the law continually set before him ideals, which he could not reach up to, and was a continual reminder of his faults, his errors, and his shortcomings. The law was holy, and just, and good, but it meant death to him.

He found a conflict within him between good and evil. For, he says, "that which I do I know not; for not what I would, that do I practice; but what I hate that I do." "For the good which I would I do not; but the evil which I would not, that I practice." From this conflict he found no way of escape. Evil seemed to triumph. He was being brought into captivity to sin. But when, in despair, he cries out, "O wretched man that I am! Who shall deliver me?" the answer comes, "Jesus Christ." And so, he says (8: 3), "What the law could not do, Jesus Christ did. There is no condemnation to them that are in Christ."

Paul must have been impressed by the speech of the martyr, Stephen, which he had heard, and by the heroic and patient courage with which he met his death. He must have met and heard the testimony of many other Christian men and women. While he carried on his work of fierce persecution this heaven must have been working in his mind and heart. The climax of the conflict was reached on the way to Damascus, and Paul's great decision was made then and in the days that followed.

9: 1-2. Desired of him letters. The high priest was still the chief magistrate of the Jewish people, and his authority was recognized by Jewish communities even outside of Palestine. Though subject to Rome, these Jewish communities were allowed a large measure of freedom and self-government, and Jewish magistrates appear to have had, at certain times and places, the power not only to imprison, but even to inflict the death penalty, although the latter was usually held by the Roman governor only, or those deputed by him. The letters, therefore, which Saul received from the high priest would be respected by the Jews of Damascus, and would authorize the arrest and punishment of the Christians.

3-7. A light from heaven. What exactly it was that happened we do not know. We might conjecture that it was a sunstroke, or an epileptic fit, but no such explanation can fully account for what followed. That a conflict had been going on in the mind of Saul seems beyond question. His mental agitation may have helped to produce a physical crisis. But, however, that may be, the one certain fact is that God spoke to the inmost soul of this zealous persecutor, and compelled him to see and to acknowledge the truth. It was God, and yet it was Jesus, too, whom he met that day on the way to Damascus. "I am Jesus whom thou persecutest," the vision said. In all this early Christian experience there is an identification of Jesus with God. Paul, who had fought so hard against Him, now calls Him Lord, "Lord, what wilt Thou have me to do?"

8-12. Behold, he prayeth. It is significant of the reality and truth of the vision and experience which had come to him that Saul was driven to prayer. He came to persecute; he remained to pray. And his prayer was answered. For there came to him, divinely instructed, a good man and true, whose name was Ananias, who was commissioned to lead him into the way of faith.

The street which is called Straight, in which Saul had his lodging, is still to be seen in that ancient city. Most streets of eastern cities in those days were simply open places, square or oblong, inside the gate, where the market was bought and sold, and where the elders held council and the judges

their court. But this, apparently, was already an open thoroughfare, connecting different sections of the city, and with the open shops of the merchants on either side. It was lined with columns, the bases of which can still be seen.

13-19. I have heard by many of this man. The fame and dread of Saul's name had already reached Damascus, and the Christian people there knew of his coming and what he had come for. Yet at the call of duty, the call of his Lord, Ananias went to him. He did not know but the going might cost him his life—nevertheless he went.

A chosen vessel. There came, by this word of inspiration, to Ananias a promise of what such a man as Saul might become, if converted to Christianity. A man of his learning and great ability and knowledge of the world might indeed by the chosen vessel to bear Christ's name before the Gentiles and kings and the children of Israel. And that was the divine word to Ananias.

He entered the house and greeted his enemy as "Brother Saul." Who could resist the spirit of brotherhood and goodwill which was so manifest among those early Christians? Paul's heart was won and his eyes were opened. The great decision was made. He was baptized, making public confession that he now believed in Jesus Christ, and would follow Him. It was not long until he was preaching Christ in the synagogues.

"The coming of Jesus to Paul was for him from the very first a miracle of God's favor, or grace; the winning of his heart, an unexampled display of power. The experience could only be the work of God; for it gave him what he had long been seeking—rest of soul, peace of conscience, a free forgiveness, and a love that was also an inexhaustible source of moral power."—Strachan.

Paul repeats the story of his conversion twice in the Book of Acts, once to the crowd which thronged onto the stairs of the castle (22: 5-16), and again before Festus and Agrippa (26: 12-20). In both cases he declares that he saw Christ. So also in 1 Cor. 15: 8, he says, "He was seen of me also, as of one born out of due time." "Am I not an apostle?" he asks. "Have I not seen Jesus our Lord?" This testimony of Paul in 1 Corinthians is indeed the earliest record, earlier than any of the gospels, of the appearances of the risen Lord.

Paul could never forget his vision. Nor could he forget that the Christ whom he had persecuted had forgiven him, and had done him this great honor, making him His apostle. "I thank him that enabled me," he writes, "even Christ Jesus our Lord, for that He counted me faithful, appointing me to His service; though I was before a blasphemer, and a persecutor, and injurious. Howbeit I obtained mercy, because I did it ignorantly in unbelief. And the grace of our Lord abounded exceedingly with faith and love which is in Christ Jesus. Faithful is the saying, and worthy of all acceptance, that Christ Jesus came into the world to save sinners; of whom I am chief." (1 Tim. 1: 12-15).

Application. It is consistent with the Divine attitude as revealed at many times that Jesus should commence speech with the erring persecutor with a question. Men who do wrong are not only sinners but fools. Through the centuries God has been trying to get His children into a sensible frame of mind. "Israel doth not know, my people do not consider. Come and let us reason together, saith the Lord," was the message of Isaiah. "There is a way that seemeth right unto man, but the end thereof are the ways of death," was the word of that writer who so earnestly urged the advantages of wisdom. It was the same spirit which Ezekiel expressed in "Turn ye, turn ye, why will ye die?" This was the burden of Christ's own complaint over Jerusalem. "How often would I . . . but ye would not." This is a righteous world, governed by a God who loves goodness. There is no figure of speech strong enough to describe the folly of the man who yields himself to wickedness. The whole universe is confederated against him.

Agricultural Education at Universities.

Agriculture being the basic industry of the country, every advance made in the development of agricultural education is of national value. Recently, several provincial universities have presented extension courses for the benefit of farmers and others. To this end the educational authorities have co-operated with farmers' organizations with highly encouraging results. In the case of Manitoba a course of lectures was given on rural economics and sociology, supplemented by special lectures on a variety of subjects appealing to other sections of the community. In Ontario also, the University of Toronto was induced to give a similar course. A noteworthy feature of the course was the taking of students to the stock-yards, the abattoirs, and other places of a practical illustrative value. It is felt that the alliance thus established between the agricultural industry and those engaged in educational work will tend to a better understanding of economic problems which affect the welfare of town and country alike.

Value of Boys to Agriculture.

On the principle of teaching and training the young idea, Australia is encouraging the emigration of boys from the old land. The ages of boys so transplanted are between 16 and 20. In four years the state of Victoria took 3,000 of these lads, New South Wales 1,500 and South Australia 800. New Zealand has also adopted the system. It is interesting to note that 96 per cent. of the passage money advanced has been paid back. The advantages of the policy are claimed to be that the boys are good advertisers by their letters home, that the country gets a longer life in the settler for the same cost, that boys are more easily transplanted than adults and that their development is greater and of more benefit to the surroundings. That Canadian farmers are alive to the benefits derived from the system is proven by the fact that the Dominion Bureau of Agricultural statistics records the fact that in 1914, 32,417 applications were received for juvenile immigrants and 2,818 supplied and that in 1919, 11,718 similar applications were made.

Flowers are the sweetest thing that God ever made and forgot to put a soul into.—Henry Ward Beecher. Properly drained lands will absorb and hold for the crops a larger amount of the rainfall on the land than land lacking in drainage facilities.

A good sprayer is almost a necessity in the garden. One of the knapsack type will be found convenient and of sufficient capacity to do all the necessary spraying in a large garden.