

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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W. E. H.—I have three acres of Grimm alfalfa seeded two years ago this coming spring on a light clay loam, which I manured the winter preceding sowing of seed. As I would like to take a first cutting of hay and a crop of seed off this ground this coming season, can you advise me on a good analysis of fertilizer which I could profitably apply to this crop early this spring (say when I could apply it with a fertilizer drill, as I have one of these implements)?

Answer:—Alfalfa is a great lover of lime, therefore if you have not limed your soil recently I would advise you to apply this lime at any time, even before the snow has entirely gone off. Take your fertilizer drill, leaving the discs or holes suspended, and opening it wide open. Put the lime through the fertilizer box. As spring opens and the frost goes out the lime will work into the soil and correct any sourness which may be there.

As soon as the soil is dry enough in the spring to go over with a team, apply about 250 pounds per acre of a fertilizer analyzing 2 to 3 per cent. nitrogen, 10 to 12 per cent. phosphoric acid and 2 to 4 per cent. potash. If the ground is very closely packed, set the discs of the fertilizer drill to cut out shallow, at the same time applying fertilizer in the usual way. This will help the growth of alfalfa materially. In order to see just how much it helps I would advise you to leave a drill row unfertilized over an average part of the field.

A. E. S.—Which do you think is most profitable to feed dairy cows in winter, swede turnips or sugar beets? Which will give the biggest yield in tons per acre? Can you recommend some good keepers?

I have about a dozen horseradish plants growing in my garden. I have tried to get rid of them by digging them out but the more I dig the thicker they get. Can you tell me of anything I can put on them to stop their growth?

Answer:—With reference to swede turnips and sugar beets for cows the following is the analysis given by a representative chemist:

Sugar beet: water, 83.6; protein, 1.6; carbohydrates, 13.6; fat, 0.1.
Swede turnips: water, 89.1; protein, 1.2; carbohydrates, 8.7; fat, 0.3.

The figures speak for themselves. In practice, however, it is not looked upon as a good procedure to feed turnips to dairy cattle on account of tainting their milk.

Relative to yields in tests reported by Dr. Zavitz, O.A.C., as an average of six years from the best yielding sugar beet he got 29.91 tons per acre; from the best turnip he got 21.01 tons per acre. Of sugar beets he mentions among the leaders, Giant White Feeding, Royal Giant and New Danish Improved. Among the turnips he mentions Garton's Superlative, Steel Brig's Durham Sweded, Darsh and Hunter's Canadian Gem.

Relative to the killing of the horseradish plant I would advise you as soon as they show in the spring to

cut them off with a sharp spade or hoe. Get a pound or two of sulphate of iron or copperas. Dissolve this in a large pail of water and sprinkle the solution on the plant. This should kill them out in a very short time.

R. G. H.—I have been getting poorer crops from my farm year after year. I have used manure, and a year or so ago I tried acid phosphate, but I did not get the results expected, and have come to the conclusion that something else must be lacking in my soil. Clover doesn't thrive at all and my cattle are not making the gains that I think they should make. One of my neighbors says my soil needs a liberal application of limestone. Please let me know what your opinion is, and where I can purchase agricultural limestone.

Answer:—Evidently your soil needs lime. You should apply at least from one to two tons of ground limestone per acre. This may be purchased from a number of concerns in Ontario. One is at Dundas, another at Beachville.

The lime corrects the acidity of the soil and helps the physical condition or make-up. In actual tests the Ohio Exp. Station found that lime increased the yields of wheat approximately five bushels per acre, whether the field was fertilized or not. This clearly shows what has been demonstrated many times, that lime is a necessary correcting agent in crop growth. Speaking generally, it is not a plant-food, hence lime will not take the place of fertilizer or manure, neither will manure or fertilizer take the place of lime. Both plantfoods and lime should be used in a good system of farming.

Lime can be applied any time in the year, in fact it is good practice to apply lime just before the snow goes off. The early working of the soil brings the lime into quick action. Do not apply lime and fertilizer at the same time.

For Home and Country

The Silver Anniversary a Gratifying Year in the Women's Institutes.

BY G. A. PUTNAM, SUPERINTENDENT.

The strength of the Women's Institutes, which were first established twenty-five years ago, lies in the fact that localities desiring service in the way of lectures, literature, and demonstrations, are advised to form organizations and are required to hold meetings, utilizing local talent. While the service rendered by the Institutes Branch has been of real value and much appreciated, the activities of the women and girls in the local organizations has resulted in gaining much knowledge of practical value in the housing, clothing and feeding of the family, the introduction of practices making toward health and strength of body and mind, ability to grapple with social, educational and economic problems through the co-operation of the whole people in the best interests of the community.

It has been demonstrated in the work of the Women's Institutes of Province for the past twenty years, that the value of the service rendered is dependent to a very large extent upon the degree to which the people directly concerned can be induced to put forth effort on their own behalf. For the Government or any organization outside of the community to undertake to perform service for the people without requiring activity and the shouldering of responsibility on their part, is not conducive to the best development of the people concerned, and does not result in a service of lasting worth.

We have in the Institutes of Ontario a form of organization and methods of work which are a very forcible factor in making towards efficiency, prosperity and contentment in the rural districts.

The Institutes Branch, which has developed into a "Department of Home-Making and Community Building," is not only rendering a valuable service in literature, lectures and short courses, but is a medium through which the local organizations are linked up with the services available through other Departments of the Government and voluntary organizations. The women of Ontario have come to realize that they have a power for service of real worth in community and nation building, and are intelligently co-operating with men in bringing about many needed improvements and advantages which have been wanting in most rural districts.

The past year has been one of steady growth and marked progress.

The fact that the number of Branches has increased from 980 to nearly 1,000 during the year, with a corresponding increase in membership, and that at the conventions held at Fort Frances, North Bay, Ottawa, London and Toronto, the attendance was considerably larger than in previous years, is evidence of the development of the organization. A matter of perhaps greater importance is the way in which the individual Institutes, in their own communities are undertaking and carrying through work of the most practical benefit to the people.

School Improvement and Child Welfare.

The Institutes are working more and more actively than ever to improve the public schools, particularly in the rural districts where there is no other "school and home organization." A number of Branches have installed sanitary drinking fountains, one Branch in Northern Ontario where the water supply for schools or homes is a real problem, paid fifty dollars to have a well dug at the school and are proud of having struck flowing water. Others have had the school cleaned and re-decorated, supplied washbasins and paper towels, and in general improved the sanitary condition of the school and surroundings. Proper seats to suit the needs of growing children, better heating and lighting systems have been put into several schools through the influence of the Institutes, and sometimes through their financial assistance, while it is a common feature of Institute work to present the school with such things as library books, first aid kits, playground equipment, historical pictures or prints of classic paintings, gramophones, pianos, weighing scales, screens to keep out flies, and hot lunch equipment. One Institute on Manitoulin Island has furnished the three schools in the district with complete hot lunch equipment, and a number of Institutes are assisting in supplying cocoa, sugar, milk and vegetables and other foods to be used for the hot lunch.

The Institutes continue to assist in the work of medical school inspection whenever they can be of service to the visiting doctor and nurse, and in several counties the Institutes are assisting in the support of a permanent school nurse. They are also in many places giving generous donations to the school fair work carried on under the direction of the agricultural representative, have provided for the judging of school plots, and assisted personally in judging the household exhibits. One Institute has organized a class to train the school girls in sewing for their school fair exhibits. A few Institutes have been instrumental in having music, household science and manual training taught in their schools, and a number have been responsible for having continuation schools opened in rural communities. There is a case on record where a number of children in a farming section were ready for high school but would never have an opportunity for further education unless the public school opened a continuation class, and the school had no funds available this year. The trustees appealed to the Women's Institute, and they responded with a few hundred dollars to make up the additional teacher's salary.

Obviously one of the important features of these varied projects for school improvement is their influence to arouse in the whole community a sense of responsibility in the school.

Community Halls and Recreation. Since the passing of the Community Halls Act, the Women's Institutes have been active in raising money to build community halls or to renovate old halls to meet the standards required by the Act. One Institute in

love and trust. Into thy hands I commend my spirit; again the words of serene and quiet confidence. If Jesus died of a broken heart, he did not die with a broken faith. He gave up the ghost. The expression is rather—"He rendered his spirit." None of the Evangelists say simply that he died. It is as if they wished to imply that Jesus gave himself to death as he gave himself to life, with deliberateness and willingness. He crowned in death what he did in life.

Application. The crucifixion made very different impressions upon those who witnessed it. On the soldiers, who actually did the deed, it seemed to have made little or no impression; they were absolutely blind to the wonder and glory of the scene in which they were taking part. Dr. Alexander MacLaren suggests that they could not speak a word to any in the crowd. The act of crucifixion would not be anything out of the ordinary for them, for it was part of their ordinary work in troublous times. Upon the members of the Sanhedrin and those who thought with them it had an extraordinary effect; the perfect revelation of goodness and spiritual beauty threw them into convulsions of angry opposition. Even the group of the friends of Jesus, standing afar off, saw only a very little way into the meaning of what was taking place before their eyes. As Dr. James Stalker says: "When something grand is to be seen, there is required not only the object but the seeing eye. The image in a mirror depends not only on the object reflected but on the quality and configuration of the glass."

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Northern Ontario was successful in renovating an old cheese factory to meet all the necessary requirements. It is also of interest that the Institute at Spry, in the Bruce Peninsula, twenty miles from a railway, has secured a ninety-nine year lease of the Orange Hall, and rebuilt it to make it a comfortable gathering place. Where the Institutes have not contributed to the actual building of the hall, they have, in a great many communities, loaned such accessories as a piano or kitchen equipment. In many places the Institute is represented on the Board in supervision of the type of recreation carried on after the hall is established. One Institute in Simcoe County has been given sole charge of the program of entertaining, with the responsibility of seeing that all young people's gatherings are properly chaperoned.

Other community enterprises common to Institute work are the establishing of memorial parks and athletic grounds, tennis courts for the young people in rural districts, and rest rooms in country towns, for the use of women coming in from the country to do their shopping. The Institutes also bring valuable entertainment and education to the community in the way of concerts by local talent, and outside speakers and entertainers. University Extension courses are becoming very popular. A few Institutes have brought in Chautauque courses, and the number of requests for speakers furnished by the Department shows a marked increase this year. Several Institutes have purchased moving picture machines on the plan of instalment payments arranged by the Government and are making use of Government films. Other community ventures sponsored by the Institutes are the inauguration of a "clean-up week," a county campaign for home beautification, an appeal to the council to have certain public nuisances or dangers removed, such as in one case, the draining of a ditch which was breeding mosquitoes to the great annoyance of the congregation of a neighboring church.

A hot brick in a padded box often will help bring through young pigs born in extremely cold weather.

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Jesus Crucified, Luke 23. Golden Text—He was wounded for our transgressions, he was bruised for our iniquities; the chastisement of our peace was upon him; and with his stripes we are healed.—Isa. 53: 5.

Lesson Setting—After the arrest of Jesus, he was taken before the chief priests, Annas and Caiaphas. Then he appeared before Pilate and Herod and lastly before Pilate again. In his trial before both civil and religious authorities, justice was travestied. Pilate was actuated in the end by fear. The priests were blinded by hate. During the trial Jesus was patient, quiet and unafraid. He never seemed so different from other men as during that experience when men heaped their indignities upon him. The strength that he found after such agony in the garden of Gethsemane did not fail him in the hour of utter need.

I. The Long Agony, 33-43.

Vs. 33, 34. When they were come to Calvary, Jesus had come from the judgment hall, bearing his cross, amid the lamentations of the women. Then the cross was laid on Simon of Cyrene. The word "Calvary" means skull. The place was probably a low mound, shaped somewhat like a skull. It lay outside the city gates near a public highway leading into the city. And the malefactors; two robbers of the same class as Barabbas. Jesus is placed between them as if to identify him with the worst of criminals. Father, forgive them. This is the first of the seven words from the cross. This prayer for forgiveness was for the soldiers who had nailed Jesus to the cross. The soldiers were but the tools in the hands of others. Elsewhere we learn that before the actual crucifixion he was offered "drugged wine" to deaden the pain. Jesus refused it for he must drink the cup of pain to the dregs. Parted his raiment. The clothes of a criminal belonged to the executioners. They were divided by lot.

The people stood beholding. They had played their part when they had cried, "Crucify him." Now they were passive spectators. The rulers . . . derided him; the members of the Sanhedrin. They seem to have come to their hour of revenge. He saved others . . . save himself. They think that the submission of Jesus means helplessness rather than willing sacrifice. It was because he was the Christ that he would not save himself.

Vs. 39-43. The soldiers also mocked; taking their cue from their superiors. Offering him vinegar. If this was not the drugged wine already mentioned, then it was given him as a grim and cruel joke. A superscription. It was customary to inscribe on a tablet the cause of condemnation. In this case the Jewish authorities asked Pilate to change the title so that it would read, "He said I am the King of the Jews." But Pilate refused, saying, "What I

have written, I have written." One of the malefactors . . . railed . . . the other rebuked him. The other malefactor, even in the extremity of his agony, had been impressed by the personality of Jesus—his patience and his forgiving spirit. He sees that while he and his companion are suffering justly for their offences, Jesus had done nothing to warrant his punishment. Remember me when thou comest into thy kingdom. He has a real faith in Jesus that he is more than man. He is a king, and the thief asks to be remembered by him. To-day . . . in paradise. Jesus shows his full understanding of the man's words. His faith and worship is to be rewarded. This is the second word from the cross. The third word (John 19: 25-27), is spoken when Jesus commends his mother to the care of John, his disciple.

II. The Finished Work, 44-46.

Vs. 44-45. It was about the sixth hour; at noon. Being the time of the full moon, the darkness could not be due to an eclipse of the sun. Darkness over all the earth; as if nature were in sympathy with Christ in his suffering. Veil of the temple . . . rent. This was the curtain that separated the Holy Place from the Holy of Holies. The rending of the veil symbolized the fact that Christ's death had made a new and living way to God. In Matthew we learn that the veil was rent from top to bottom, and that there was an earthquake and that many of the saints which slept arose and appeared to many. Jesus . . . cried with a loud voice. This introduces the seventh and last word of the cross. From the other Gospels we learn the fourth word (Matt. 27: 46, 47; Mark 15: 34, 35), "My God, My God, why hast thou forsaken me?" This was the cry of one who for the moment had lost his sense of fellowship with God. It is the note of an experience too deep for us to fathom, and possible only to one standing in a relation different from ours to man and his sin and to God and his grace. We learn also the fifth word, (Matt. 27: 48, 49; Mark 15: 36), which was "I thirst." At this cry a sponge, saturated with vinegar and placed on a hyssop stalk, was placed to his lips. Then he gave the sixth cry (John 19: 30), "It is finished." This was not the faint utterance of a worn-out body, but the deliberate utterance of a clear consciousness that his work was finished, and that God's ordained purpose had been fulfilled. It is not simply an ending of his sufferings, but a perfecting of the work which he came to do.

Vs. 46. Father. The cloud that seemed to separate his soul from God has lifted. It is to his Father that he speaks once more. It is the word of

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