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.

D. H. B.:—Would you recommend soybeans and corn combined for silage, would the combination add enough value to the silage to warrant the outlay for the beans? Should soybeans be planted at the same time at the same depth, in the same hill as corn? Will the beans and corn mixed give a fairly even stand when planted with hand-planter? Can you say approximately how much seed of soybeans is required per acre? If there is more than one variety, which is best adapted for sandy soil?

Answer:—In Missouri, where they have an exceedingly long season of growth for corn, it is common practice to sow soybeans and cowpeas, especially the latter, with corn. In many sections the corn is not harvested, but hogs are turned in as soon as the crop has made satisfactory growth and the crops are "hogged off." The growing season in Ontario would not admit of this sort of practice. On the other hand, I believe it would be quite profitable to grow soybeans and corn separate and possibly mix them when the material is being cut for the silo. Under such conditions they should be cut green for hay when the pods are well formed, and before the plant begins to show signs of ripening. Henry & Morrison, in their book on "Feeds and Feeding," recommend mixing one ton of soybeans with 3 to 4 tons of corn. If grown separately and fed in combination with silage, good results are obtained. For instance, the authors quoted give results where soybean straw 7.1 lbs. and silage 25 lbs. along with ground soy bean 3.7 lbs. and corn-and-cob meal 3.7 lbs. gave 17.2 lbs of milk per day, carrying .98 lbs. of fat. This contrasted with alfalfa hay 12.3 lbs. and silage 24.6 lbs. along with corn-and-cob meal 3.7 lbs., which gave 15.1 lbs. milk, carrying .80 lbs. of fat.

Soybeans planted alone require 1½ to 2 bus. of seed per acre, when intended for hay. In tests at O.A.C. the variety of soybeans which did best was O.A.C. No. A1, a local selection. Early Yellow is also good.

Reader:—I wish your opinion on planting soybeans with corn for silage, since soybeans are high in protein. Which brand or kind would be most suitable for this section, as our farm is of a genuine black loam; also, in a good state of fertility. How could they be planted to the best advantage? What amount of corn and beans should be used? What is the best method of inoculating soybeans?

Answer:—Your question regarding the use of soybeans with corn for silage is similar to one answered above. All the points on which you enquire are touched upon with the exception of inoculation. Inoculating beans means introducing the form of bacterial life that grows naturally on the roots of this legume. This is best done by getting a culture from the Bacteriological Department of Ontario Agricultural College, and follow the instructions very closely. This being done you should get a good set of the bacterial life which naturally inhabits the soybean. Have in mind one other point, and that is that baceria require a sweet condition of the soil in which to thrive. This being the case, it is necessary to apply lime to the soil before sowing soybeans. Put on about 1,000 to 2,000 lbs. of ground limestone after the ground has been plowed and work it in by disking and harrowing.

W. L.:—We have a field of seven acres of new ground that we would like to plant to potatoes in the spring, but the soil is literally alive with wire-worms, we had a small corner of this field in potatoes this season but the wire worms worked havoc with them, spoiling many of them entirely. Will say that we have this field fall-plowed. Have heard that fall plowing would kill them out, but as this is our first experience with the pest are at a loss to know whether to risk it to potatoes or to use the field for corn. From which will we get the best returns on potatoes for the amount invested, commercial fertilizer or dried pulverized manure from the stock yards?

Answer:—You have done well to fall plow your land in attempt to control the wire worm. This insect is exceedingly persistent. Frequent change of crops and working of the soil breaks up his abode, killing both the larva as they are changing to the fly stage. The frost will of course help kill out some of the insects in the process of change.

I would not advise that you follow last year's crop with potatoes or corn, since the wire worm works havoc on both these crops. If you could sow a small grain such as wheat, barley, or oats and seed it to clover, applying fertilizer at the rate of 300 to 500 lbs. to the acre, you would follow a practice which would give you a fair return from the crop and at the same time make things just as disagreeable as possible for the wire worm. The fertilizer should be fairly high grade, running about a 3-8-3. Working the fertilizer thoroughly into the soil, either by applying it with a grain drill with fertilizer attachment or spreading it broadcast on the land and work it in by careful disking and harrowing.

SUN LIFE SHOWS BIG GAINS IN ALL LINES

49th Annual Report is Issued, Showing Tremendous Gains in New Business Obtained.

Several new and interesting records in the insurance business, were made by the Sun Life Assurance Co. of Canada during 1919. The 49th annual report of the company has just been published and shows that the new business actually issued and paid for during the past year was $86,548,850, being an increase of $34,957,457, or 67.7 per cent., over 1918. The tremendous business of the Sun Life will be realized when it is stated that applications for new assurances retained during 1919 exceeded one hundred million dollars. The figure creates a distinct record in the insurance business of the Dominion, as no Canadian company has ever before approached this total.

The business in force amounted to $416,358,462, showing an increase of $75,548,805. The assets of the company were increased by $8,091,089 and now amount to $105,711,468, while the report shows a net surplus of $8,037,440 over and above all liabilities and capital stock, which indicates the importance attached by the company to safety and protection. The company paid out to policy-holders and their beneficiaries $12,364,000, bringing the total amount paid out in this connection since organization to $91,227,532. Another record was made in regard to income with a total of $25,704,201, or an increase of $4,053,101 over the previous year.

Owing to the remarkable development in the business of Canada's greatest life assurance corporation, the directors feel that the business in the Dominion is due to enormously expand during the present year.

Forestry does not interest the wandering farmer. But that man who has the vision of making his farm a home for his children and his children's children will plant trees and will look on the wood lot as a permanent asset.

You cannot deceive others without first deceiving yourself.

Pruning and Spraying Makes Old Orchard Pay.

Good management made an old unproductive orchard produce one hundred and sixty bushels of good saleable apples the past season on the farm of C. S. Osburn. This orchard was twenty-eight years old, badly infested and infected with all of the common orchard insect pests and diseases, and for years had not produced a bushel of perfect apples. Last season after pruning, the orchard was sprayed five times as follows: Before budding, at budding, at petal fall, two weeks after petal fall, and in July.

At picking time the apples were thoroughly inspected and actual counts were made. Worm control was ninety five per cent effective. Scab and scale were almost completely controlled. A very few apples were unsaleable because of blotch. The investment of labor of pruning, spray material, and cost of application was seventy-five cents per tree.

Show love to those you love lest love should fail.
Let not the long grass grow on friendship's trail.

The easy going man usually travels down hill.

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YOUR PROBLEMS

BY

MRS. HELEN LAW

Address all communications for this department to Mrs. Helen Law, 235 Woodbine Ave., Toronto.

High School Girl: How late in the evening may a girl entertain a boy friend?

The boy or young man who calls on a girl in the evening should go home in good time. Ten o'clock is a suitable hour if the boy lives near at hand, and there are no lessons to study. If he lives at a distance, or if either of the young people has lessons to prepare, nine o'clock would be a better time.

Merrie Maid: Please describe a novel way in which an engagement can be announced.

To announce an engagement, have a "heart search." Make large pink cardboard hearts on which are written familiar quotations. Cut these in half, diagonally, and hide them in nooks and corners around the room. The hearts are to be matched and nothing unusual will be suspected until a matched heart will be found reading as follows:

"Two souls with but a single thought,
Two hearts that beat as one."

Followed by the names of the engaged couple.

Peggy: I am sorry that you had such a misunderstanding. But you did just right in refusing what you did and I wouldn't bother my head about a boy who has acted as he has. Just hold your own little head high in the air, for you are in the right, and we must have girls like you to keep alive the finest ideals of girlhood.

A Friend: A hope chest should contain all the dainty articles of lingerie, linen, as well as the more utilitarian household articles, a girl needs for her future life. A general list would be napkins, tablecloths, sheets, pillow cases, towels, and of course lingerie articles. Since the day has not been set when you will want to open this wonderful box, I would not advise you to stock it up on lingerie, because lingerie styles do change and so do your tastes, and by the time you are married, scant petticoats may be full, while you may change your mind as to desirable designs. You are fortunate to be able to crochet and you can make pretty towel ends and insets, and lace edges, and yokes for your "undies." These will be ready for use when needed.

E.G.: You did not trust me with your real name and address, so I cannot answer your question, much as I would like to. Remember such facts are absolutely sacred to me. I like to feel that the people who ask me questions are real people, not just initials or fancy names.

Evangeline: You ask me if it is proper for a girl to write to a boy whom she has known for a long time, even if he has not written her. I think the boy should take the initiative, but if you are really anxious to begin a correspondence, I suppose there is no harm in sending him a picture post card or something like that and then if he responds, you will know that he was just waiting an excuse. This is assuming that he lives away from you and that there is a real justification in such a correspondence.

The Sunday School

INTERNATIONAL LESSON
MARCH 28.

The Life Work of Peter and John—Review Revelation 21: 21-22: 5. Golden Text—Matthew 28: 19, 20.

Peter and John were widely different in disposition, but were, nevertheless, warm friends. From the beginning Jesus united among His followers men of various types, and great variety must have been found in the early Church. The love of Christ and the faith of Christ brought men together in a great brotherhood. Findlay says, speaking of Peter and John, "The union of these two leaders, who belonged to the opposite poles in gifts and temperament, is significant for the unity of the apostolic company and of the Mother Church. St. Peter was the prompt, incisive speaker, and bold leader; St. John the slow, deep thinker; the one as considerate as the other was impetuous, as measured in the movements of his mind as his companion was eager and demonstrative. Both were men of large and warm heart—equal in their reverent love to their Lord and in appreciation for each other. The co-operation of St. John with St. Peter surely did much to give thoroughness, staidness, and stability to the primitive evangelism." He goes on to characterize Peter as the prophet and evangelist, John as the pastor and teacher.

Interesting lines of study are suggested by the above paragraph. There is, first, the study of character. This will lead us to a fresh reading of all the passages in the Gospels and Acts in which special mention is made of the two men, and to a fresh examination of the writings of Peter and John with the purpose of trying to discover the kind of personality which lies back of each group of books. Interesting critical questions may also be raised, for the answer to which such good commentaries as those of the **Cambridge Bible and Century Bible** will be helpful. For example which of the Gospels represents most closely the teaching of Peter? How shall we account for the wide difference between the style and narrative of the Gospel of John and the other three Gospels? Is it possible that the writer of the Gospel and Epistle of John can also have been the author of a book in many respects so different as the Book of Revelation? And can Peter have been the author of both epistles which bear his name? These questions are very old and have often been discussed. The attempt to answer them will be found to stimulate interest, to lead to closer and more careful study, and to a fuller appreciation of the great value of these books.

A second, and equally important, line of inquiry will be as to the respective place and work of each of the two great apostles in the founding of Christianity in Asia and Europe. Here we shall be interested not only in all that is told us in the New Testament about them, but in the references to them, and stories told about them, in the Christian writings of the second, third and fourth centuries. Such an inquiry will emphasize the imperative need of every Sunday school—a good permanent and growing teachers' library. Nothing will do more to inspire good work in the Sunday school, and especially in the Bible classes.

These lines of study and research will have important practical results. We shall learn more perfectly the meaning of Paul when he spoke of the Christian community of diverse races as being united in Christ, and "built upon the foundation of the apostles and prophets." We shall see how closely our own faith is joined to that of the apostles, how much we rely upon their testimony, how we are encouraged and guided by their insight and their faith. And we shall see also how Christ has use for men and women of every different talent and temperament, for those who have strong initiative and the talent of leadership, like Peter, for those of the more thoughtful and contemplative mind, like John, and for the profound scholar and zealous missionary, like Paul.

By these and many others whose heart Christ has touched is the house of humanity being built, in which the Spirit of God shall dwell. It is these who enter into and become citizens of the city of God, whose establishment upon earth is so graphically pictured in Revelation 21 and 22. They are the men of clean hands and of a pure heart, in whom shines the light of God. They are "His servants who shall do him service," in whose foreheads, for all the world to see, His name is written. It is they, and such as they, through all the centuries since, who have been preparing the nations for entrance with them into the city of God, the rightly ordered society of the coming time, in which there shall never more be injustice, or cruelty, or falsehood, or anything unclean, or "he that maketh an abomination and a lie."

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SUN LIFE ESTABLISHED NEW LANDMARKS *in* 1919

New milestones in the progress of the SUN LIFE ASSURANCE COMPANY OF CANADA were passed in 1919.

Applications received ..... over $106,000,000.00
Assets ..... over $100,000,000.00
Assurances in force ..... over $400,000,000.00

Gratifying progress was made in all other departments during the year.

SYNOPSIS OF RESULTS FOR 1919:

Assets as at 31st December, 1919	$105,711,468.27
Increase over 1918	8,091,089.42
Cash Income from Premiums, Interest, Rents, etc., in 1919	25,704,201.10
Increase over 1918	4,053,101.41
Profits Paid or Allotted to Policyholders in 1919	1,606,503.37
Total Surplus 31st December, 1919, over all liabilities and capital (According to the Company's Standard, viz., for assurances, the O^M (5) Table, with 3½ and 3 per cent interest, and for annuities, the B. O. Select Annuity Tables with 3½ per cent interest.)	8,037,440.25
Death Claims, Matured Endowments, Profits, etc., during 1919	12,364,651.15
Payments to Policyholders since organization	91,227,532.30
Assurances issued and paid for in cash during 1919	86,548,849.44
Increase over 1918	34,957,457.40
Life Assurances in force 31st December, 1919	416,358,462.05
Increase over 1918	75,548,805.92
Life Assurances applied for during 1919	100,336,848.37
Increase over 1918	42,529,381.70

THE COMPANY'S GROWTH

YEAR	INCOME	ASSETS	LIFE ASSURANCES IN FORCE
1872	$ 48,210.93	$ 96,461.95	$1,064,350.00
1884	278,379.65	836,897.24	6,844,404.64
1894	1,373,596.60	4,616,419.63	31,528,569.74
1904	4,561,936.19	17,851,700.92	85,327,662.85
1914	15,052,275.24	64,187,656.38	218,299,835.00
1919	25,704,201.10	105,711,468.27	416,358,462.05

The SUN LIFE issues more ordinary assurances annually than any other Company of the British Empire.

SUN LIFE ASSURANCE COMPANY OF CANADA

1871 HEAD OFFICE MONTREAL 1920
T. B. MACAULAY, President