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.

J. F.:—My farm is medium sand loam and I would like to know what kind of fertilizer would give the best results for oats and corn. Please tell me in what rotation the ingredients of fertilizers are named in the printed analysis, such as 2-12-0, etc. Last season I used a fertilizer of one nitrogen, eight phosphoric acid and one potash, which I think gave good results on the corn and oat crops.

Answer:—For fertilizers for oats I would advise the use of 250 lbs. to the acre of a fertilizer analyzing 3% ammonia, 8% phosphoric acid and 3% potash. For corn I would advise 300 to 400 lbs. per acre of a fertilizer analyzing 4% ammonia, 8% phosphoric acid and 4% potash. The order in which the ingredients of fertilizer are named is as above, nitrogen or ammonia first, phosphoric acid second and potash third.

The 1-8-1 fertilizer that you mention is an exceedingly low grade plantfood. If you got good results from it on your oats and corn, much more should you get good results from the higher grade material which I have mentioned. Buying fertilizer is exactly like buying farm machinery or livestock. You can get low grade material at a low price. You have to pay higher price for higher grade material.

P.C.:—What suggestions have you to offer as to the best crop to raise for hay at the same time not depleting the soil, and if need be, get a catch of clover and alsike?

Answer:—I cannot advise a crop that can be raised for hay without depleting the soil. You cannot have your pie and eat it too. This does not mean that you cannot keep up the fertility or bearing capacity of the soil, but it does mean that every crop that is grown and harvested takes out a definite amount of plantfood. It is thought by those who are partially informed that clover will maintain the fertility of the soil. If the clover crop is grown and cut, in all probability the nitrogen of the soil will not be lowered because clover, by virtue of its root structure, has the capacity to fix a certain amount of nitrogen in the soil. It takes from the soil phosphoric acid and potash and has no power whatever to add to the soil's stock of these ingredients, therefore if a clover crop is grown, phosphoric acid and potash must be added if you are going to maintain the stock of fertility in the soil.

This is not the only way of looking at the fertility question. Nature has provided a great stock of plantfood material in the soil. If by proper rotation of crops you can grow a clover crop once in three or four years, you add to the fertility of the soil as I have described. If at the same time you are able to apply a certain amount of manure to each of the tilled fields you are putting back just as much more nitrogen, phosphoric acid and potash. If in addition to these practices you make a judicious application of fertilizer suited to the crops and to make up the weaknesses of the soil, you do just that much more to maintain this stock of plantfood. Whether you maintain this stock of plantfood or not is quickly shown by your yields from a number of years. The general result is that yielding capacity of the soil is materially increased by the practices I have suggested.

To illustrate definitely what I mean you do not feed your working team for the purpose of maintaining their weight, but you feed them in order to get as much work out of them as possible. Is not this the logical way of looking at your soil. The results at all of the older experiment stations and on hundreds of well managed farms, where fertilizers have been used in combination with green manures such as clover and stock manure, are that the soil instead of becoming less productive has become more productive.

The best way to get a catch of clover and alsike is to seed it with wheat or oats which have been fertilized at the rate of about 200 to 300 lbs. of fertilizer per acre, supplying 2 to 3% ammonia, 8% phosphoric acid and 2 to 3% potash.

P.P.:—Is ground limestone good for grape vineyard?

Answer:—It is questionable whether ground limestone is profitable to apply to the soil in the vineyard. One experiment results of which we have before us, indicates that the addition of lime retarded the yield of the concord grape in 2 years tests reported at Rhode Island Station. The usual place to apply lime is to soil where a catch of clover or any other legume is desired. The benefit of its application under these conditions is evident since legumes like sweet soil.

K. H.:—Will you kindly explain what tankage is, and what is its feeding value for hogs and cattle?

Answer:—Tankage is a mixture of meat scrap and general waste from the carcasses of butchered animals at the stock yards. This material is cooked and the grease removed. In this process the liquid is drained off and the solid material is dried and ground. It analyzes 5.75 to 10% nitrogen and from 2 to 10% phosphoric acid. The material is exceedingly valuable as a source of protein for hogs, also some at times is fed to sheep. The protein in a ration is that part of the food which causes the production of flesh and muscle in the animal. In various experiments the use of tankage has proven highly valuable in hastening the growth and maturity of hogs. It is also fed in limited quantities to poultry with exceedingly good results.

Horse Sense

That enough thought is not given by farmers to the size of their horse stalls is the opinion of L. Ogilvy, who writes in "The Breeders' Gazette" as follows:

"When I went to the stable I found the 16 and 17 hand horses in stalls not over 4 feet 6 inches in width. There were a number of stocked legs, some big joints, and a listless air as though they had rested badly. Moreover, the stalls were damp, and they did not contain a sufficient amount of absorbent. Mature horses age quickly enough anyway, from the strains and vicissitudes of work.

"What is the sense of aging them prematurely by not giving them room to stretch and lie at ease in the periods devoted to rest. Sixteen hands is 5 feet 4 inches. How can any horse lie on his side and stretch in a stall less than that width? Yet horses are confined for weeks and months in pony pens, and expected to come fresh to work in the morning. The heavier the horse the more work he needs. A pony leg will outwear a draft leg any time, other things being equal.

"There is a legend that horses sleep standing, which is true when they suffer from some disability that makes lying and rising distressful, or when they are exhausted and cannot lie comfortably. But that does not alter the fact that the leg belongs to the horse, and must have the best treatment possible, or else it will wear out first. If one cannot afford enough stall room or roomy enough stalls, they should be used for feeding, and the horses turned loose in the yards, preferably with sheds in which to rest."

So let us give a little thought to the way our horses are housed, as well as our machinery and tractors. Steel-horse parts can be replaced, but a leg made unsound by improper stabling is a total loss.

Do not feed green cut bone oftener than every other day. It is best fed in a trough. Allow about one-half ounce to each bird. Should too severe or continued looseness of the bowels follow the feeding of the bone it should be discontinued or the quantity reduced.

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The Sunday School

INTERNATIONAL LESSON. MARCH 21.

John's Picture of Worship in Heaven —Revelation 7: 9-17. Golden Text, Rev. 7: 12.

9. A Great Multitude. There is a difference, but not necessarily a contradiction, between this vision and the one preceding it (v. 1-8). It has been suggested that the vision of the sealed members of the tribes of Israel may have been drawn from an old Jewish apocalypse. In any case it contains the idea, so agreeable to the mind of a Jewish Christian, that the Church of Christ is the new Israel, the Israel of faith (see Rom. 9: 6-8, "children of promise"). And so God's promises to Israel are fulfilled in the salvation and future glory of the Church, which may, therefore, be pictured as constituted like the tribes of Israel. But in this second vision of the great multitude the redeemed are regarded in a larger way as coming out of all nations, and kindreds, and people, and tongues. The ancient barriers of race are broken down and all men come together in Christ. Redeemed in Him and exalted to eternal life with Him, they stand before the throne and before the Lamb, clothed with the white robes of the new life, and bearing palm branches, symbols of victory.

10-12. They chant together a song of praise ascribing salvation to God and to Christ. Christ is here, as in the Gospel of John, called the Lamb, because He was regarded as having offered Himself a sacrifice for the salvation of His people, like the sacrifice of the Passover lamb which was a memorial of the deliverance from the plague which slew the firstborn of Egypt (Exod. 12). Or there may be a reference to Him of the saying of Isaiah (53: 7), "He was led as a lamb to the slaughter."

The angels about the throne take up the song and ascribe sevenfold praise to God (v. 12). Compare 5: 13.

13-17. One of the Elders. The elders appear in the throne vision of chapter 4, and appear to be angelic beings, such as the Jews conceived as forming a sort of heavenly court, or as ministers of the heavenly King. They must be taken simply as a part of the imagery of the vision-parables. Here one of these chief angels asks and then answers the apostle's question. This great multitude is the host of the redeemed, saved by the faith of Christ, cleansed from the corruption of sin by fellowship with His sufferings and by the power of His Spirit. They, too, have suffered, and have come up out of suffering to eternal victory.

"They climbed the steep ascent of heaven,
Through peril, toil, and pain:
O God, to us may grace be given
To follow in their train."

In that blissful community of heaven suffering shall be no more—no more hunger, or thirst, or scorching heat, or wandering away, or weeping. Like a happy flock in rich pastures, Christ shall shepherd them, and as out of cool springs shall they drink waters of eternal life.

Whatever calamities come upon the world, therefore, whether in the first century or in the twentieth, caused by grasping and cruel ambition, by war, by famine, by plague, or by the persecution of evil men, those who have believed in and followed Jesus Christ have a sure refuge and a sure hope. They may suffer, but they shall be redeemed, and out of earth's misery they rise to the joy of being with Christ.

The parallel and complement of this vision of the redeemed in heaven is the vision of the holy city, the new Jerusalem, which is to be built upon the earth (chapter 21). The counterpart of the perfect and glorious society of heaven will be the perfected social life of men upon the earth, from which injustice, and uncleanness, and falsehood, and pain, shall be banished, and in which death itself shall be overcome. As we pray for and dream of heaven, so also do we pray and dream and labor for that consummation of the kingdom of God, that heaven upon earth, in which Christ by His Spirit shall reign supreme.

"Evil communications corrupt good manners." How well this old proverb is illustrated in sorting stored fruits or vegetables! In the apple barrel, where there is a decayed fruit, the next to it soon becomes decayed, and unless the unclean fruit is removed the whole barrel will be spoiled. And so it is with people.

Things I Have Learned About Parcel-Post Marketing

The parcel post in its beginning was often hailed as a solution to the farmer's marketing problems. Although it did not solve all of the problems between the producer and the consumer, still it has been a great convenience to the farmer. This year the parcel-post method of marketing farm produce has been tried more extensively in some sections. We have used it, and find it a very satisfactory method of marketing.

Eggs can be shipped safely by parcel post in the commercial carriers. The packages can be returned for a few cents, and used for another consignment. Even hatching eggs carry very well through the mail if they are properly packed. This year we had the report of only two eggs broken out of a large number of shipments, and many good hatches were reported. They were shipped in non-breakable containers holding either 15, 30, or 50 eggs each. Each egg is first wrapped in paper, and fitted securely in its section so there will be no room for jostling. Parcel-post packages of hatching eggs cannot be sealed, as is the case with express shipments, but there seems to be little danger that the packages will ever be tampered with during the trip if the packages are tied with a stout cord.

Another form of egg package consists of a box of hollow cylinders made of corrugated paper. There is a paper plug for each cylinder. Each cylinder holds one egg securely in place, and there is no chance for jostling. We have never heard of an egg being broken in such a package when shipped by parcel post.

Fresh butter is another product that carries very well by parcel post. Special containers can be procured, and arrangements made with city customers to take a certain amount each week or every other week. We have seen strawberries shipped by parcel post, but they arrived in only fair condition. This may have been due to an over-ripe condition of the fruit. The boxes were also scantily filled, and of course the jostling of the trip caused them to settle, and this made an inferior-looking package. If the delivery man must haul the fruit a long distance over his route before returning to the post office, we would not advise the shipping of small fruit by parcel post, except possibly as an experiment to please some city relative or friend.

Poultry can be shipped by parcel post in the winter, and at least one city customer found that he could purchase fine broilers from a country friend and have them shipped through the mail, and the cost was still several cents under the retail price at his local dealers. The stock was fresh and far superior to cold-storage poultry.

One fault with shipping large amounts of produce by parcel post is the fact that the carriers who use a single buggy are not equipped to take the consignments.

One producer who tried the system said: "My mail carrier looks so sad and sorrowful when I come out with a load of packages that I pity him, and it takes about fifteen minutes to locate the parcels under the seat and still leave enough room for the driver and the neighbors' mail."

This producer believed that the carrier was displeased at being inconvenienced with parcel-post packages, and she did not wish to bother him. In our own experience we have found our carrier very friendly and accommodating, and he has given the best satisfaction with all packages we have shipped. He has handled them carefully, protected them with robes when it rained, and frequently weighed and stamped them at the office and allowed us to pay him the charges the next day. This has frequently been a great convenience when we were busy, as it takes some time to weigh up and stamp a number of packages. However, after a little experience and a study of the zone map, the farmer is able to figure out his own postage rates, and this saves time for the carrier. Owning a pair of postal scales is a great convenience to the farmer and the mail man. They can be purchased for a moderate sum at most city stationery stores.

The best method of using the parcel post is first to ship to friends and relatives who are appreciative of quality goods. Then the number of customers may be enlarged by adding the names of buyers who are highly recommended by people that are well known for their integrity.

A parcel-post business in garden or poultry products may mean some correspondence, and this should be cut down to the minimum. The best method is to have an understanding that so many dozen eggs or pounds of butter are to be shipped at regular intervals. Then do not take on too many customers, and be forced to cut some of them out at the first shortage of eggs or butter. It is best to have only regular customers that can surely be supplied and then leave a surplus. There is always a market for that surplus, and it acts as a reserve to keep the private customers supplied with their needs. Of course, special crops will need some telephoning or correspondence, and this must be taken into consideration when trying to market by parcel post at a profit.

The great advantage of the parcel-post is in saving trips to town. A farmer with private customers and plenty of field work may find that twenty or thirty dozen eggs have accumulated in a few days. The weather may be hot, and he wishes to sell them while fresh. He is too tired to drive down at night, possibly before Saturday. The teams are busy during the day, and the wife does not wish to drive down while it is so hot. Why not pack those eggs in substantial parcel-post containers and send them to the regular customers? The cost of the stamps will be far less than the cost of the trip to town. Often, in the winter, the roads are bad, and butter and eggs or a carrier of fruit and vegetables can be shipped to a city consumer without loss. To the credit of the rural carriers it might be said that the roads are seldom bad enough to keep them at home.

Are you aware that the rural mail carrier is the most poorly paid of all civil servants? These faithful men have been especially hard hit by mounting costs, so that now their salary (which is paid only quarterly) is utterly inadequate for their needs. Parliament is now in session. Let us use our influence to obtain a much needed increase for these valuable public servants.

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

Student: You are to be congratulated on having such a pleasant little room for a study, and you will doubtless spend many delightful hours there with your books. You have indeed a fine collection of volumes and you can add to them from time to time. There is no more satisfying friend than a good book. May I suggest that you have the following lines made into a "motto" to hang on the study wall?

Now may I very worthy be
Of this most goodly company—

The good familiar folk that throng
This room, from history and song:

Scholars and poets, scribes and seers,
Foregathering from other years;

High-hearted queens from distant days,
Gray pilgrims treading patient ways;

Soldiers and captains, knights and kings,
Brave men of far adventurings—

Each of earth's beautiful and best
Draws near to be my gracious guest.

Shall I not offer for my part
At least an understanding heart,

Good will, good work and courtesy
For such a gracious company?

Patriot: Have you thought of a Community Hall as a memorial of the boys who have not returned? It seems a fitting monument to those who spent themselves in the service of others. As your town is small, the Hall should be so planned as to serve the needs of both town and country. It should therefore contain a clubroom for farmers where the latest agricultural books and papers may be found and also a check room where the out-of-towner may leave his bundles free of charge and where shoppers from the country may bring their lunches and have small children cared for. In the auditorium, entertainments for both town and country folk may be held.

You wish to perpetuate the memory of the lad who gave. He helped his fellowmen to his fullest capacity, therefore the tribute you give his memory should carry on the spirit of service where he laid it down.

The memorial community house, dignified yet friendly in its real aspect, designed to meet the civic and social needs of your community, will survive not only as a memorial to those who died, but will give to all the feeling of helpfulness that makes the world a better place to live in.

Write to the Director of the Dominion Experimental Farm, Ottawa, for plans and other information.

Seventeen: Who should open the door when a young man calls upon a girl? Should the girl take his hat? Is it correct to go to the door with a caller who is leaving? And must I always thank an escort for bringing me home?

It is of no consequence whatever who opens the door when a young man calls upon a girl. If she happens to be near at hand, she may open it. Any member of the family, or a servant, may open it also. There should be no set form of salutation. It is presumable that a girl would greet any caller in a pleasant way.

A man is supposed to take care of his own hat, although in the absence of a hat-rack or hall table, it is courteous to indicate to him where he shall place it. A girl is not supposed to hand him his hat when he leaves. First, last and always, a man is supposed to take care of his hat and overcoat.

Accompany a caller to the door, but do not linger there. It seems to be difficult for young men to learn how to take leave, so girls should not encourage them to linger.

By all means, thank an escort for bringing you home, and vary the thanks according to the affair. You can say: "What a lovely ride we have had! It was so good of you to take me with you." Or, "I can't tell you how I have enjoyed the concert. It was so kind of you to take me to hear the choral society."

Bedtime Stories

The Story of the Clock.

"Come, Betty," said Mother, "put away your dolls. It is time for bed."

"Oh, mamma," pleaded Betty, "I don't want to go to bed yet. I'm not a bit sleepy."

"But, Betty, look at he clock. The hands are pointing to 7 and you know that is bedtime."

"Horrid old clocks! I wish they'd all stop and never go again," muttered Betty as she tucked Matilda Jane and Josephine into the carriage in which they slept.

"Tick-tock, tick-tock," sounded the dining room clock in the night, and in the quietness its voice seemed to grow louder and louder.

"What's the matter?" inquired the kitchen clock from its shelf. "You seem to be angry."

"Didn't you hear what Betty said before she went to bed? I think I'll stop and see how she likes it."

"Well, if you stop, I'll stop," answered the kitchen clock.

The tall grandfather's clock in the hall paused to listen to the conversation. "If they are both going to stop, I'll stop too. I am quite tired ticking day and night and would like a rest."

Betty opened her eyes. How quiet the house was! But it was quite light and must be time to get up. She tiptoed into mother's room. Mother was wide awake, but still in bed. "Isn't it time to get up?" asked Betty.

"I don't know, dear; the clocks have all stopped."

Betty dressed and ran downstairs. No breakfast ready. "You see I didn't know what time it was. All the clocks have stopped," explained Hannah.

"Why, Betty, you are very late," fast she put on her hat and ran down the street to call for her little chum, Pearl, to go to kindergarten.

"Whq, Betty, you are very late," said Pearl's mother. "Pearl has been gone some time."

Betty hurried down the street. Not [illegible] a child in sight. No one on the playground. She crept up under the window and listened, then turned and ran home, the tears trickling down her cheeks.

"I'm sorry, little daughter," said Mother, "but I had no way of telling the time."

"Do you think it's anywhere near 1 o'clock?" asked Betty a few hours later. "You know, Uncle James promised me a ride if I came at 1."

"You'd better run over and see," said mother.

But alas for poor Betty! She ran around the corner just in time to see Uncle James disappear in the distance.

"Betty, Betty, wake up!" and Betty opened her eyes to find Mother standing by her bedside.

She sat up and listened intently, then threw her arms around Mother's neck, exclaiming, "Oh, I'm so glad it was only a dream!"

And before she ate her breakfast Betty crept over to the clock and whispered: "I'm sorry I called you names. I'll never do it again."

Canada to be Important Fur Market.

Canada is now exporting to other countries, according to Dominion Government figures, $14,000,000 worth of furs and skins in the course of a year, and a number are brought back into the country, purchased by Canadian dealers at foreign sales and resold to Canadians. The value of furs and skins exported during the fiscal year 1918-1919 was $13,737,021. Of these $9,743,464 worth went to the United States, $3,763,955 to Great Britain, and $230,202 to other countries. Some extent of the values to which these exports have risen can be obtained from the fact that the value of the export of furs and skins in 1917 was but $5,837,383. During the month of March, 1919, the value of these exports was $2,080,704, as compared with $1,420,168 in the corresponding month in 1918. It has been estimated that eighty per cent. of the silver foxes of the world come from Canada.

For nearly four centuries Canada has been one of the largest and most productive fields of the fur trade, and it is impossible to estimate the number or the value of the costly pelts taken from the traps of the Dominion in this period. Yet, until quite recently, the fur trade was hardly organized on a business basis, and beyond the trapping and taking of the furs the various phases of the industry passed out of Canadian hands. Traders bought from the trappers and then the raw materials went to the large foreign markets.

There has gradually dawned a realization of the money lost in this way, however, and in future Canada will market her own furs and Montreal become one of the most important fur markets of the globe. For years London, St. Louis and New York have been the selling centres to which Canadian furs have travelled and St. Louis had the world's premier fur mart. The auction at Montreal will be conducted by a large company capitalized at $5,000,000 and will be largely co-operative in nature. It is the intention to hold three auctions a year.

The opening of a Canadian fur market is a natural development of artificial breeding and fur ranching. This industry is fairly general throughout Canada, and in Prince Edward Island the industry which has been in operation for more than thirty years, has assumed very important proportions. In 1914 there were in the island no less than 250 fox ranches with nearly 4,600 foxes.

Not one man out of a thousand realizes that the government of this nation rests right on his shoulders. It is so, though. Not a farmer but must bear his part, whether he knows it or not. The time to lift your part of that load is at election time. Be ready. Know what you are doing then lift like a Trojan.