

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. Answers will appear in the columns of the order in which they are received. Where space is limited it is suggested that the questioner should state briefly the nature of the problem and the conditions under which it is to be solved. The answer will be mailed direct.

Q. A. I have four or five acres of land which is quite heavy clay. It has been plowed and has been in pasture for about fifteen years, quite heavy June sod. What would be the best crop to plant next Spring, so I could sow it to wheat in the fall of 1927? What would be the best time to plow it and how many inches deep should it be plowed?

A. Answer: The answer to your question will depend to some extent upon your location. If you are in the section where normal temperatures range from 40 to 60 degrees Fahrenheit, you should plow the ground to be plowed early to allow the soil to settle and to allow the weeds to grow up for fall wheat in the autumn of 1927. If you are not in the corn belt, you should plow a mixture of clover and oats, about a bushel of each to the acre, which could be cut for mixed grain. As soon as the crop is harvested, have the ground plowed immediately from 5 to 7 inches deep and worked up for fall wheat. At the time you seed the fall wheat it will pay you to add additional available phosphorus in the form of about 250 to 300 lbs. of fertilizer per acre. For the fall wheat on your heavy clay I would advise using an analysis running about 2 per cent ammonia, 12 per cent phosphoric acid and 1 or 2 per cent potash.

Q. S. A. Would I get as good results from applying acid phosphate to top soil surfaces and dragging it in as I would if I used a fertilizer drill?

A. Answer: Best results will be gotten from acid phosphate if it is worked into the soil as is done by application through a fertilizer drill. The whole object is to get the phosphate distributed through the moist soil as thoroughly as possible. If the soil is dry and the application is made broadcast on the surface, you will not get as thorough a distribution through the growing area as when the fertilizer is worked into the damp soil, where it can immediately dissolve and spread through the soil water.

Q. W. I have a piece of ground, about six acres, which I planted to oats last year. I sowed about 200 lbs. of fertilizer to the acre and all I received was two loads of straw (no oats). I want to get some clover on it and I would like to have something to cut for hay next year also. Can I sow timothy and clover this fall, or just the timothy and sow the clover in the Spring? What can I do to get a catch? Would land plaster help? If so, how much would be proper to sow and when would the best time be to sow?

A. Answer: The climatic conditions of the past summer were almost opposite to such as would produce best growth of oats. Consequently, this crop is very largely a failure all over the province. The fertilizer which you applied to your oats will remain very largely in the soil for next year's crop. If you are in the fall wheat section your ground could be worked up immediately and wheat sown this autumn. Under such a system good results are gotten by sowing timothy seed at the time the wheat is sown and applying the clover in the spring just as the last snows are going off, or as soon as the ground is sufficiently dry to bear a team.

While you will have considerable of the plantfood of the 200 lbs. of fertilizer that you applied to the oats still in the soil, if you wish to make still further sure of a catch of grass and clover I would advise the addition of 200 lbs. more fertilizer at the time you are drilling in your fall wheat. This immediately available plantfood would give the wheat and the grass a good start, preparing it for the severe tests of winter.

I would not advise the application of land plaster because this is simply a temporary stimulant. It does not add any plantfood, and indeed operates to let loose some of the plantfood that is already in the soil. Letting loose this plantfood at a time when the crop is not growing actively may result in the loss of some of the soluble plantfood from the soil, whereas the addition of the fertilizer advised would be actually supplying immediate available food to the young crop.

Q. J. Please tell me what to do with land on which nothing can grow. I have about one-half acre of black sand on which nothing seems to grow. The land is level and though there used to be a great deal of water on it, I have drained it.

A. Answer: From your description I am not able to determine whether it is the physical condition of the soil or the bad physical condition of it that causes its sterility. Since it is said and you have drained it thoroughly, but still without effect, I am of the opinion that the soil is (1) **Soddy**, (2) **Alkaline**, or (3) **Too rich** to retain sufficient moisture for plant growth, and (3) The soil is so poor in plantfood that it is unable to support a crop. I would, therefore, advise as follows:—Apply about a ton of lime per acre upon the land to be plowed this fall or next spring. Work it into the land immediately after plowing. Next Spring, sow to barley, putting on about a bushel of the acre, and at the same time seed with a mixture of common red and alsike clover, about 10 lbs. of the former and 4 lbs. of the latter per acre, or about 12 to 15 lbs. per acre of sweet clover.

In order to supply the immediate available plantfood to get the legumes growing, apply about 300 lbs. per acre of a fertilizer carrying about 3 per cent ammonia, 3 per cent phosphoric acid and 3 per cent potash. This should give the grain crop and grass a good vigorous start. If the legumes make an abundant growth, cut the first crop and turn the second one under in order to build up the humus of the soil.

The Country Child's Schooling

An Answer to the Question, "How Much Education Does the Rural Child Need?"

By ADA MELVILLE SHAW

To the broad-minded and far-seeing educator, there can be but one answer to the question: How much education does the rural child need? It is proverbial that children and fools tell the truth. In a spirit of curiosity I put the question to an exceptionally bright school boy. He considered a moment, gave me a swift glance of scorn and buried at me his conclusion, final and all-embracing: "All he can get!"

I might conclude by dropping the topic at this point as fully covered by my boy friend's brief statement. Skill, because he has not had all he could get, so to speak, and because there still exist for him handicaps so great that while the friends of education labor to overcome them, all the energy of his "grow up" must be put out of his "without having realized the measure of his possibilities, we must still argue and preach and plead, at every opportunity, each doing our best to clear away the handicaps from as many of this generation as possible, and for all who are to come along the path of citizenship via the way of the rural home and the rural school.

How much education can the young child take? would perhaps be the better way of putting this question. When the earth receives more moisture than it can care for, we have destructive, or wasteful, overflows; flood, when it receives less than it can care for, we have destructive, or wasteful, depression of the ground. Our country children must not suffer from educational "flood" or "drought." The proportion of schooling to need must be normal. Men and women must be fitted according to the needs of their day. This conclusion leads us to present this question in still a third way: What must the country child produce in order that he may best meet the demands of his day in the place where he finds himself?

A full answer to this question, this study of life and living, as they are and as they should be, would at least involve a study of what constitutes Canadian citizenship and the duties of citizenship. It is not too much to say that we have entered upon a world period when the interests of farmer and statesman are as closely related as my right hand is to my left: the national body cannot afford to cripple or paralyze or amputate either side.

Many of us can remember when the average magazine and newspaper took account of farms and farmers chiefly from the standpoint of commodities toward men and women who made daily contact with the dirt of the field, the barn, the chicken yard, the hog pen, or, from the standpoint of the farmer as a comic or picturesque contribution to a certain type of fiction; or, in connection with vacation idylls and poetry, about the ruminating cow, the song of the cheerful, the rosy cheek of milkmaids and so on. Nearly all this has gone by thank God! To-day the farm and the farmer, and his wife and family, are on all editorial pages that are worth the name; one great field of journalism sends out, shall I say, billions of pages yearly, well edited, well illustrated; the market reports and the weather reports and the health reports and the insurance reports and a score of other exact statistical documents that concern themselves with the business world in its most serious and vital aspects, turn their clearest spotlights upon the rural population, and what it is doing and thinking. The farm vote and the farm thought and the farm action are to be dealt with. The farmer is one of our national bone, flesh of our national flesh, and what our national life in its evolutionary ongoings has brought into vital union, let him put asunder who dare—at his own peril.

Make Their Calling Sure. Therefore—to return to our mittens—what education can our rural Johnny and Mitty take? I make unqualified answer that they can take exactly what any boy or girl can take: such education as will most perfectly fit them, to quote the great teacher, Paul, to make their "calling and election sure"—a sure success in the broadest, soundest sense of what the word success can mean. And what then is to be the "calling and election" of the country child?

Within my memory and yours, the Three B's have given place to such a bewildering list of special projects that we, who are grey-haired, feel as though we had been Rip Van Winkle and had wakened up in a new world. Agricultural Colleges are taken to their capacity—and some of them beyond capacity—and along with students from the towns and cities, young men and women who see in agriculture the future for themselves but an opportunity to serve their day and generation, and they are thus preparing themselves to make that future scientific success as well as a financial and citizenship success as well as a personal success—a success leading toward statesmanship as well as a success that will work on the minds of "the masses." I believe I have been stating this proposition.

The Sunday School Lesson

SEPTEMBER 25

Review. Golden Text—

Review Paragraph. Barnabas and Paul, such and to teach in the synagogues, and the universal language of the Jews. Between men of different nations, however, the Roman Empire was safe from pirates and robbers, and firm rule throughout the world. Upon that journey.

His companions through two journeys—to Cyprus and Asia Minor, Macedonia, Greece, and from him into Italy after city, provincial synagogues and marketplaces, and workshops, and quiet, hospitable homes. We see assembled throngs, eager listeners, and some open and willing hearts glad to receive so great a message. But we see also hostile faces, Jews that cannot endure to hear that the future age of salvation of which they dream is to be for the Gentile as well as for the Jew, and Gentiles who are offended when told of the folly of their idol worship. We follow Paul and his companions through scenes of riot and confusion, amid the fierce clamor of the mob, before Roman magistrates, who usually tried to do what was just, into prisons, and then in flight to farther cities and new places of toil.

Paul's life becomes to us a great example of unselfish toil, a living sacrifice. He gives himself wholly to his task. He has become, he confesses, the bond slave of Jesus Christ. He lives only to proclaim the love and saving grace of Jesus Christ. Or, as he himself wrote, "For me to live is Christ." And he believed that, in all his toil and sacrifice, Christ was with him. "Never forget," writes Paterson Smyth, "that inner secret of Paul's life, the constant realizing of the close presence of his Lord. The whole value of this biography is lost if we forget Christ in thinking of His servant; if in admiring his faith and courage and endurance we lose sight for a moment of the secret of it all. He lived in Christ's presence. Behind, over the heads of priests and governors and howling mobs, he could always see Jesus. He sought only his approval. He knew Him for his friend in life or in death."

Application. Paul's own experiences give point to the exhortation with which the lesson for to-day begins. He knew what it was to be overaken in a fault. Right in the midst of a career of persecution he had been smitten to the ground and convicted of his sin. It was when humbled and chastened, blind and confused, that a messenger of Jesus came to him, calling him "Brother Saul," and leading him out into liberty. Again, when he went to Jerusalem, filled with remorse for his past actions and seeking to atone by redoubled zeal on behalf of the church, he was met with opposition and disabled by "a fall from one of the roofs which had fallen to his feet. He had been converted, but not yet took his right piece of work to be done, sent for him to be his partner in it. Paul knew the sweetness and strength of brotherly helpfulness and what others did for him, we may do for others.

Prayer. E. I. S.: I have a duck which laid eggs, and I would like to have her. When she came off she drooped around and her feathers looked rough and she would set around and gape for open her mouth as though gasping for breath. Thought perhaps she was moulting but it seems as though she ought to be better by now. Can you tell me what to do for her? Also give the best feed for young ducks, and tell if they can be picked during the summer.

When mature breeding ducks gape and appear rough and lacking in vitality it is usually due to lung trouble. It is often caused by dampness in the house or lack of range. Possibly the strain of heavy laying followed by a long period of setting on eggs reduced the vitality of the bird and made her susceptible to lung trouble. A little cayenne pepper in the food may be helpful. Isolate the bird in a dry, sunny house and the next morning, but treatment of such cases is difficult.

Ducks can be picked the same as geese and at the same time. When the birds begin picking at themselves in the spring and seem about to shed, it is time to make an examination and pick them if the feathers seem ready. A good ration of ducklings can be made of one part corn meal and four parts bran with a little low-grade flour to stick it together. Then add about five per cent of coarse sand. After the third day a sprinkling of beef scrap and green rye should be added to the mash.

After the eighth week a good fattening ration for ducklings consists of three parts corn meal, one part low-grade flour, one part beef scrap and three-fourths part of beef tallow. This is given three times each day.

Carpenters' driving tools, such as hammers and chisels, are not intended to be used in pounding on heavy metal. To use them with cold chisels will soon batter the faces of the carpenter's tools, rendering them virtually useless, inasmuch as a nickel or better hammer face will not drive nails without causing slipping from the nail head. This slipping results in damaged work and bruised fingers, bent tools and lost tempers. To get rid of the nails, grind the faces of the hammer till it is perfectly smooth; then keep it in that condition.

The Right Hammer for Metal. For fitting and heavy pounding a machinist's or blacksmith's ball-peen hammer is the tool to use. It is made for the special purpose of pounding iron or driving metal tools.

Be noble! And the nobleness that lies in other men, sleeping, but never dead; still rise in majesty to meet their own.—James Russell Lowell.

Farmers should not endeavor to raise hens under natural conditions. For a hen raised that way is a liability rather than an asset. To make a profit out of hens, a farmer should feed them in the best of conditions. This can only be done by giving extra good care and plenty of good feed.

An Illuminating Subject

The coal-oil light's a burning bright,
(It will, sometimes, when it feels right)
Put sets there reading, slick as sin,
The latest poultry bulletin;
Then, half to me, and half to me,
Pa tips and speaks: "I see, says he,
"As how correct illumination
Will make hens lay like all Creation;
I've thought it out; the help's all hired;
I guess I'll have the henhouse wired.
Ma stoops and peers and says away,
Does Ma, and then I hear her say,
"I wish I was a blessed chicken;
Maybe I'd wire the homestead then!"

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