

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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H. E. B.: I have a field that is sandy loam (some of it is quite light) on which I lost the clover seedling last year. This field will be pasture for two years so I am not particular about the grass, only would rather have clover. How much seed do you sow? Would you inoculate for both seeds, also how do you proceed? This land is now planted to wheat. Would you harrow the seed in or would it damage the wheat too much?

Answer: I would advise you to sow 18 to 20 lbs. of good clover seed per acre. If you wish to get a good catch of sweet clover by all means inoculate the seed. The inoculating material comes in bottle form with full instructions. Write the Bacteriological Dept., O.A.C., Guelph, who sell the inoculating material at a nominal rate.

On the land where the wheat is now standing I would advise you to sow the clover seed broadcast late in spring just before the frost goes out of the ground. The cracking of the soil in the springtime will allow the seed to be sufficiently buried, so that it will get a good start. If the wheat has made a good firm stand it may be well to harrow the ground lightly, setting the harrow teeth back so that they will not drag out the wheat, and harrow with the rows and not across them. Do not do this if the clover seed has sprouted.

I would advise you to apply about 200 lbs. per acre of a 3-8-3 fertilizer also as soon as you are able to go on the ground in the spring. Scatter this fertilizer over the top of the wheat with the lime spreader, or broadcast it. This soluble plant food will give the young growing crops of wheat, grass and clover an especially strong start and will do a lot to ensure a good stand of clover as well as to increase the yield of wheat.

A. P.: Please tell me how to test marl to find its quality as fertilizer in the strict sense of the term, neither in time. Both of these are soil correctors; that is, by virtue of the carbonate of lime that they carry they correct the sourness of soil. You could send a sample of your marl to any chemist who will tell you the quantity of calcium and magnesium carbonate that it contains. This will give you an idea as to its value as a soil corrector. However, actual application of about two tons to the acre will show you how thoroughly it corrects the sourness of the soil equally as well, and will save you the expense of the analysis.

some of those lightest in hull, which are Joannette or Daubene. Whether you disc or plow your soil should depend entirely upon the state of the soil in the spring. Speaking generally, it is best to plow medium loam soil.

Poultry

Proper ventilation of a poultry house means more than an opening that will allow cold air to rush into the building. Every farm flock, to be healthy and profitable, must have proper ventilation.

Each building has its own problem of ventilation. There is the building with the flat top, the ventilator generally being an open window in the side or end. Go into such a house on a cold day, and you will notice moisture on the ceiling. That is proof that the air is not circulating as it should, and the resulting dampness is very injurious to the fowls. Such a building makes poor living quarters.

If it is necessary to shelter your poultry in a flat-roofed building, by all means place a ventilator through the roof so the used air and moisture will be carried out promptly. A galvanized iron ventilator costs more than a hole slashed through the siding, but it is the only way to make such a building fit for poultry. Too much ventilation is as bad as too little, especially in severe weather. Some poultry houses are open so the wind causes a strong draft through them, and in very cold weather this is pretty certain to cause frost-bites and other ailments that cut down egg production. A few minutes' work

would make it possible to regulate the air current.

The amount of air admitted should, of course, vary with the number of fowls. Since this number is a varying one, there are worth-while advantages in a ventilation system that allows for regulation of the air current. A sliding door across the air inlet is a simple and efficient method, and one that can be profitably installed in new buildings. It is more convenient to have the door controlled from inside the building, as that enables the caretaker to regulate it when attending the fowls.

The Sunday School Lesson

MARCH 5

Jehovah's Mercy to a Heathen City, Jonah 3: 1-10 Golden Text—Isa. 55: 7.

Lesson Foreword—It is difficult to say exactly when the Book of Jonah was written, but all the evidence points to a date after the exile, that is, after B.C. 586. This book deals with Israel's attitude toward the heathen. The Jews seemed never to be able to adopt the proper religious attitude towards their heathen neighbors. The knowledge of the true God, Jehovah, and on being lavished on people, but on the other hand, the heathen still ruled the earth. This proved a stumbling-block to Jewish spirit toward other nations. In the type of his narrow and exclusive nation, as a good Jew who refused at first to preach repentance to Nineveh's enemies, but when in the end he was forced to do so he saw that the gospel "works" in Nineveh as well as in Israel. Thus the purpose of the book is to lift the Jewish nation to a higher viewpoint where they could see that the one God is the creator of the heathen as well as of Israel.

I. Warning, 1-4. V. 1. Jonah; is the hero, but not necessarily the author of the book. It is nowhere said that Jonah himself wrote the book. There was a

prophet by this name in the reign of Jeroboam (2 Kings 14:25), but as he lived long before the events described in this book, he could not have been the hero of our story. The second time, the first command to preach to Nineveh is given in ch. 1:2. Jonah feared the effect of preaching repentance to Nineveh; the Ninevites would repent and the Lord would have compassion on them, whereas Jonah pre-emptionally recorded in ch. 1, however, brought him to his senses, and this time he obeyed.

V. 2. Nineveh; the capital of the great Assyrian Empire was situated on the eastern side of the Tigris, northward of the Greater Zab. Under Sennacherib, the city was greatly enlarged, strengthened and beautified. "All the spoils of Asia were lavished on its adornment and fortification." The inhabitants had depended on the water of the Tigris for drinking water was introduced into it in place of the rain water which the inhabitants had depended on, and stately palaces had depended on the Tigris for their water supply. The city was surrounded by walls and towers and pierced with gateways. These walls rose to a great height and were in circumference about 7 1/2 miles. Of the city's journey. The reference is circumference rather than to the city's circumference. It required three days to go through the city from one end to the other.

V. 4. A day's journey. Jonah had penetrated almost to the heart of the city when he began to preach. Yet forty days, etc. The Ninevites were not told the reason for this startling announcement but they would feel instinctively that the reason lay in their sinfulness. "For this teeming possibility of repentance,—that and nothing more" (G. A. Smith).

II. Repentance, 5-9. V. 5. The people of Nineveh believed God. They believed that they would carry out the threat and so they repented. Notice that their repentance was immediate and all-inclusive. The Ninevites contrasted favorably with the Israelites who had many prophets and a long term of grace and yet had not fully repented. One main point in the story is that the knowledge of Jehovah awakens an instinctive response even among the heathen. A fast, sackcloth, etc. These are the outward signs of grief and self-abasement. The people of the East show their feelings with far less reserve than we do.

V. 6. The report of Jonah's terrifying announcement penetrated into the royal palace so that the king also repented and abased himself. Sackcloth was a rough cloth made of the hair of camels and goats. It was worn in times of great trouble such as mourning for the dead, and along with fasting was a visible expression of penitence as here. (See 1 Kings 21: 27; Neh. 9: 1). Ashes; were also used to express mourning and penitence. They were thrown up in the air so as to alight on the head and sometimes the penitent or mourner would sometimes Job 2: 11). That the king himself should have repented so deeply shows the profound effect Jonah's preaching had on Nineveh.

Vs. 7. Not content with merely setting a precedent, the king, by his edict, commanded a national repentance. As head of the state he was in charge of the religion of the state and could enjoin or modify religious observances. Even the domestic animals were to have a part in the general repentance, and were to be denied their fodder and drink. Herodotus alleges that the Persians made an animals share in the mourning customs. The Ninevites were instructed by the edict that they were first to pray that the calamity should not come upon them and then they were to amend their evil way—their general sinfulness—and the violence that is in their hands; the social oppression that was practiced among them, such as the maladministration of justice or the pilfering of the poor by the rich. V. 8. These people who stood outside the covenant with Israel had a conscience, and that conscience, once awakened, told them that God was under no obligation to spare them from the deserts of their wrongdoing.

Smoke

OLD CHUM

The Tobacco of Quality
1/2 LB. TINS—and in pk'gs.

How to Make a Hotbed

The framework can be made of one-inch, used or unused lumber; or if a permanent hotbed frame is wanted, use concrete. Put the hotbed where there is protection on the north—a building, lightboard fence or a grove. Place it on sloping ground to permit drainage.

If the boards on the back of the frame are twelve inches above the ground, those in front should be several inches lower; thus giving a slant to the sashes, enabling water to run off quickly. This will allow, too, a better utilization of the sun's heat; the slant should be toward the south.

Throw the manure (use fresh horse manure) into the hotbed pit, which is two feet deep, in successive layers, continuously tramping. Fill the pit to within four or five inches of the top of the frame on the south side. The manure will settle several inches before time for sowing the seed. Place sash on the frame immediately after filling.

The heat in a newly-made hotbed will rise rapidly until it reaches a temperature of at least 120 deg. A high temperature may be obtained for a week or more, but it will not do so until the temperature drops below 90 deg., then place two or three inches of good soil over the manure if flats are to be used, or about four inches if the seed is to be sown directly in the soil.

Letting the hotbed heat for several days will cause weed-seeds to sprout. When the temperature gets down to 85 deg. F., rake the soil with a garden rake; then level the soil. Firm the entire surface of the soil.

Use for a marker a piece of four-inch board as long as the inside width of the hotbed. Make one edge of the board V-shaped. Press this edge into the soil every four inches to make furrows for the seed. Drop the seed and cover lightly with soil and sand mixed.

Plants requiring different temperatures should not be in the same sections. For instance, tomato plants require more heat than cabbage plants.

After planting, sprinkle warm water over the bed to moisten the soil. Replace the sashes and keep the temperature between 75 and 85 deg. F. When young plants appear, give them fresh air every day if the weather permits. Avoid watering too heavily; too much water causes poor plants do not suffer for moisture. On bright, growing days, uncover the beds and let the sun shine directly on the plants. This makes hardy plants.

Never transplant directly from a warm hotbed to exposed conditions. Either get the plants accustomed to exposure while in the hotbed, or transplant to a cold frame—which is nothing more than a sash-covered frame placed on the ground; just like a hotbed except there is no heat supplied except by the sun.

When ready to transplant, thoroughly wet the bed containing the plants to be moved. The plants will go into another section of the hotbed, into a cold frame, into flats, or to the field. If they are moved directly to the field, run a shovel or trowel under the plants, deep enough that the tap root will not be cut off.

AS YOU GO ALONG

Oaks made and set away on the top shelf drive up, gets hard and chokes a fellow when it goes down. And yet, thousands of men are working their heads off, thinking, "Another year and I'll be over the peak. Then I will begin to enjoy life. Little dull fiddling just now; but it will be all right to-morrow."

But somehow, things do not turn out just as you thought they would. Next year brings newer and bigger dreams. "Got to have a few hundreds or thousands more. We'll have the half-section we added to the old place left-paid for soon. Let's keep pegging away a little longer. We will come through to sunlight pretty soon. Then we will have our day off, lie in the shade and enjoy ourselves."

Friend, the time to enjoy is NOW. It is one of the strange things of life that if we do not take our enjoyment as we go along, we will lose our chance and never take it.

Do you remember that man who had the big farm over yonder? If ever a young farmer had things in his favor, he had. Without a cent, taken out of the very hardest possible kind of a life to a home in the country, steadily he climbed the ladder until no man anywhere around had more land or more mortgages on other farmers' homes than he had. Then, too, he owned a number of city blocks and had claims on more. Great success!

Wonderful man! So all said and it seemed to be true. And yet, that man's only enjoyment was the pitiful one of making money. He did not get any real happiness out of life. All the time he kept thinking, "I'm almost to it now! I will have more years and I'll be ready to enjoy myself."

The time came, but something had happened to him. His capacity for enjoyment was paralyzed. The nerve which connected his heart with peace and joy and comfort had been cut. He was a poor, disappointed, defeated man. His going left no gap. He never had done anything to cause people to love him, and his going was like dipping your finger in water. When you pulled it out, the place closed up and that was the last of it.

There is something sordid and tragic about living with nothing more than a dream of enjoyment. To put the last ounce of strength there is in a man into the thing one is doing; to live only for the morrow's hope that may never be realized; to struggle and strive and strain every nerve, despising the work itself and all the time looking away on to some distant peak for happiness—this is nothing less than a bitter tragedy.

For remember this, the more you drive the more you will be driven. Life must be more than a drive; it must be a source of keen enjoyment as we go along. Love of one's work now; a passion for doing, for the sake of the good one may do and receive moment by moment, here is the true pathway to the best.

How it hurts to waken up after a nightmare of dollar-chasing only to find that the possibility of something better has vanished! While we have been selfishly scheming and agonizing, so that some days we may lean back and be happy, the boys and the girls we loved so dearly have slipped away; their places in the home are vacant. The brown hair on the head of the wife of your youth is streaked through and through with white, and we know many a thread of that silver came because of our own hurry and worry and fret and unkindness. Lost out! Lost out!

Let's not do it! Let's build up the old farm the best we can, rich in peace and happiness day by day. Let's link the young folks to us by the bonds of love now while we have them with us. Let's live for the brightness and happiness we can find in the world this very day; it is the only time of which we are sure. Let's live to the full as we go along.

The Dairy

J. C.: I have a cow which has a hole in the middle of her teat and it is very troublesome. Can you advise me whether there is any treatment that will cure her?

The fistula of the teat can be done away with by the following method of treatment: Restrain the cow, casting her if necessary. Soak the teat in hot water containing all the boric acid it will dissolve, then insert a milking-tube that has been boiled for fifteen minutes. Make a new fresh wound of the false opening by cutting its edges away with a clean, sharp scalpel. Stop the bleeding by bathing it with very hot water, then dry the parts and paint the wound lightly with tincture of iodine. Coat the teat with pine tar and put on a bandage of anti-septic gauze, two inches wide, from the tip of the teat to the udder. Coat each layer of gauze with tar until seven or eight layers have been put on, then put on a final coat of tar, to the one below. In two weeks saturate the bandage with alcohol and remove it carefully. The gauze should be drawn snugly, but not tight enough to interfere with circulation. The operation is to be performed when the cow is not yielding milk.

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

When a farmer invests farm earnings in another enterprise of which he knows little, he proves that he has small faith in his own business.



Bedtime Stories

If You Were? If you were busy being kind, Before you knew it, you would find You'd soon forget to think 'twas true That someone was unkind to you. If you were busy being glad, And cheering people who are sad, Although your heart might ache a bit, You'd soon forget to notice it. If you were busy being good, And doing just the best you could, You'd not have time to blame some man.

Who's doing just the best he can. If you were busy being true To what you know you ought to do, You'd be so busy you'd forget, The blunders of the folks you've met. If you were busy being right, You'd find yourself too busy quite To criticize your neighbor long Because his busy being wrong.

Pedigreed stock brings big returns; so does pedigreed seed.

Pruning is one of those jobs which may be carried out during the fine days between now and spring.

A prosperous, happy, contented, intelligent family in every farm home is the greatest need of the nation.

The Leading Life Company of the Dominion

1921
THE MOST PROFITABLE YEAR IN THE HISTORY OF THE COMPANY

Results for Year Ended 31st December	
ASSETS	\$129,372,127.33
Increase for year	14,532,684.85
CASH INCOME	31,107,149.16
Increase for year	2,355,570.73
SURPLUS over all liabilities and capital	10,383,909.10
Increase for year	2,019,241.95
PROFITS paid or allotted to policyholders	1,849,089.95
PAYMENTS to Policyholders, Death Claims, etc.	11,967,069.62
ASSURANCES IN FORCE	536,718,130.53
Increase for year	50,076,895.36
NEW ASSURANCES issued and paid for in cash	90,030,035.66

SUN LIFE ASSURANCE COMPANY OF CANADA

HEAD OFFICE MONTREAL