

HER DUTY TO HER AGENTS FIRST

er's Romantic Attachment

ish Lady Who Warned

against Fatai Voyage.

being the woman-hater

he supposed him, was Lord

A romantic love story

about the life of the great

hand and stern as he

the world, cherished an

lasting affection for a

who died less than a

was but on the Hamp-

lady was a Miss Hutch-

er of a gentleman of

means who lived near

land, an owner of

of whose polished

the entrance of

Church and other

erato.

the lady love met in

with a bewitch-

with brown eyes and

out-of-doors complexion,

the field marshal a stripl-

er, not yet entered the

design.

the Refused Him.

later sought the lady's

age, but meantime two

had become invalids.

le one whose ministrat-

ion accepted, and the last

her duty, and she felt

not then accede to

er's

of letters passed be-

er and Miss Hutch-

er's lifetimes, but at the

er's most of them

A passage from one

er was saved reveals

er that this Scottish lady

er the bride of her

er reads: "I must de-

er the duty that has been

er wrote Miss Hutch-

er to her invalid an-

er, another reason why it

er have become accus-

er life. For you there

er, and you must have

er woman accustomed to

er and presiding over

er. But always to

er your best friends is

er of my heart."

er's

er's life Kitch-

er, the Germans the

er man whom the world

er thing upon no human

er Miss Hutchinson with

er also when he need-

er and sympathy.

er he wrote her con-

er all that was in his

er

er tried to dissuade

er on the fatal

er May, 1916. But

er flexible against her

er have always been

er to be most loyal in

er. You must try not

er. The czar him-

er to go to Russia,

er

er

er

er

er

er

er

er

er

er

Farm Crop Queries

Conducted by Professor 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 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.

The Business of Farming.—V.
How to know what to use.—When it comes to using fertilizers the practical business farmer is faced with the one great question, "How shall I know what to use?" This question is asked in various forms, one man asks, "What do my soils need?" another, "What will pay?"

In our previous work we have outlined the great primary essentials which to a large extent determine the profit of the use of fertilizers. Indeed they actually determine the profit from the crop that is grown. The soil must be in good mechanical condition if air is to circulate therein and if sufficient moisture is to be held in which plantfood can be dissolved so that it can be taken up by the crop.

These are nature's demands. They are not humanly imposed regulations, but they are universally required. Moreover, for many crops the soil must have a sweet reaction, hence sufficient lime must be returned to keep the soil from becoming acid, under which condition neither the free bacteria, nor the bacteria on the roots of the legumes would thrive.

In our last article we tried to make plain the nature of the essentials of plantfood whether found in the soil, manure or in fertilizers. Lack of this necessary information has at times resulted disastrously, because the full importance of the plantfood which the crop needed was not realized. It is our object to clear up this lack of information.

You will remember that nitrogen was the kind of plantfood that caused the growth of stalks and leaves of plants. Phosphoric acid was the kind of plantfood which ripened the crops and materially increased their root growth, while potash was the food that gives strength to the crop to resist disease and materially assists in the laying down of starch in the grain or fruit.

When the question comes up, "What fertilizer shall I use," you should keep in mind the actual nature of fertilizers. There is nothing mysterious or wonderful about them.

It is sometimes hard for one who

made, with the object of finding what to use and how much. First the crops were analyzed and it was found that certain crops removed characteristic quantities of plantfood, as shown in the following table:

Table with 4 columns: Crop, Yield per acre, Nitrogen, Phos. Acid, Potash. Lists crops like Wheat, Corn, Clover, Sugar Beets, Oats, Barley and their nutrient removal.



made, with the object of finding what to use and how much. First the crops were analyzed and it was found that certain crops removed characteristic quantities of plantfood, as shown in the following table:

Now this was true of crops whether grown in England, Scotland, United States or Canada, or in any other part of the world; hence the chemist argued that if the soils were analyzed and the crops were analyzed, that the exact amount of plantfood to apply could be determined and proper methods outlined. However, actual application of this scheme of doing things did not bring satisfaction, for several reasons. Some of the most important reasons for this discrepancy were as follows:

(a) The mechanical condition of soils was so variable in different areas of similar types of soil and these variations in mechanical conditions had so much to do with the growth of plants that the variations in chemical analyses had very little bearing on the situation.

(b) Various plantfood elements were held in different soils in different chemical combinations, some of which could be used as plantfood, while others could not. Chemical analyses of soils did not distinguish between the available and unavailable forms in which the plantfood was held.

It was no uncommon thing for chemists to analyze soil samples and report that the elements were found in sufficient quantities in a certain soil to grow highly profitable crops. When this chemical analysis was forwarded to the farmer sending in the sample, he was disappointed at times, because he knew that, although his soil may be reported to contain sufficient plantfood, it actually did not produce paying crops. Hence, the idea of anyone analyzing the soil and telling exactly what to apply in order to get certain crop yields fell into disrepute, and the idea of soil analysis as a final court of appeal in order to find out what to use was set aside.

What Crops Remove From the Soil.

Table with 4 columns: Crop, Yield per acre, Nitrogen, Phos. Acid, Potash. Lists crops like Wheat, Corn, Clover, Sugar Beets, Oats, Barley and their nutrient removal.

Then typical soils were analyzed and they were found to contain the same plantfoods in the quantities shown in the following table:

Table with 4 columns: Soil, Nitrogen, Phosphoric Acid, Potash. Lists soil types like Sandy Soil, Loam, Limestone Soil, Clay, Muck and Peaty and their nutrient content.

They are carriers of exactly the same plantfood as is supplied by manure, but in a much more concentrated form. Complete fertilizers carry nitrogen, phosphoric acid and potash, in forms in which it readily dissolves and become available as plantfood. Now, plantfood in this form is very closely comparable to rich, easily digested food which you feed to young stock. The reason for feeding this easily digested food to the stock is to give them a healthy, vigorous start in life. The same reason to a large extent underlies the use of fertilizers on crops. Fertilizers are not stimulants, they are food. Frequently we are asked if a man uses fertilizers once will he always have to do so. There is absolutely no compulsion as to the use of fertilizers any more than there is as to making a good livelihood. If a man follows a business to-day where he can make a fair return for his efforts, there is no obligation whatever that he shall continue that same business to-morrow, but the probability is that he will do so, because he finds it profitable. This is the basis on which to place fertilizers. If the use of fertilizers returns a profit, no further argument to induce their use is necessary. If properly used they are just as sure to return profitable results as is good food sure to give strength and energy to a man as he takes it day by day.

Within the memory of some of the oldest Ontario farmers there was a great cry raised regarding soil analysis. When the theory of plantfeeding and plantfood supplies in the soil was first developed in Europe, during the early part of the 19th Century and its teachings began to take root in the eastern part of the North American continent, it was thought that chemical analysis would be the great saving agent, hence great quantities of soil analyses were



Don't Experiment With Fertilizers
Let the other fellow risk his season's crop and living—you stick to the tried and proven winner, Gunn's "Shur-Gain." New fertilizers face you at every turn, but remember, for a completely balanced soil food made by men with many years' experience with Canadian farm needs, you can't beat

Gunn's "Shur-Gain" Fertilizers
Get your requirements in at once before it is too late. Gunn's Shur-Gain Fertilizers not only mean an early start for your crops, but a steady stream of plant food right through the growing period, meaning strong, full-headed, disease-resisting growths. We have a mixture to suit your soil and crop.

WHAT YOUR CHILD UNDER SIX SHOULD EAT

First Symptoms of the Contagious Diseases of Childhood.
By Helen Johnson Keyes
(So many enquiries have been received regarding a recent announcement in this column that we decided to publish this valuable information in full for the benefit of all our readers.—Editor.)

The child between twelve and eighteen months old should have five feedings daily, with about four hours between them. To eight ounces of milk may be added two ounces of barley, wheat, arrowroot, farina, or other farinaceous food. This should be cooked very thoroughly and then strained so that it is thin like a jelly which will pour. The exact amount for twenty-four hours should be made up at one time, and after it has cooled to body heat, it should be added to the milk and pasteurized with it.

At the middle feeding this should be preceded by beef juice, beginning with one tablespoonful and increasing to two ounces. If the baby does not like it alone, add it cold to the bottle of milk and cereal, after pasteurization. In warming the bottle be sure that it is not heated above one hundred degrees, as beef juice becomes indigestible at higher temperatures. Beef juice may be made in two ways:

(1) Broil very slightly a piece of lean steak an inch and a half thick, then squeeze out the juice with a meat press or old-fashioned lemon squeezer. This will make about four ounces of juice. Add a little salt or celery salt, but no other seasoning. (2) Chop finely one pound of lean raw steak, and let it stand in eight ounces of water in a covered dish from six to eight hours in a cold place. Then put the meat in a piece of perfectly clean, coarse muslin, and twist out the juice. Season with a little salt or celery salt.

Once a day—preferably half an hour before the first morning feeding—give from one to two ounces of orange, prune, or ripe peach juice. If the bowels are too loose, discontinue this until they are normal. Twice a week a soft boiled egg (2 minutes) with dried bread or unsweetened cracker crumbs grated in it may be fed instead of beef juice. When the child is eighteen months old the milk need no longer be pasteurized, and it should be taken from a cup.

Three meals a day, with a glass of milk between each, may be begun. Cereals need not be strained, but may be served as porridge with milk over them—preferably no sugar. If the teeth are well advanced, from one-half to one tablespoonful of raw scraped beef or mutton broth may be given at the middle feeding three times a week. Chicken or mutton broth, from which all the grease has been removed, may be given on the other days. Well-baked bread which is not too fresh may be spread with butter and accompany each meal. The pulp of prunes or baked apples, a tablespoonful at a time, may take the place of fruit juices.

The Sunday School
INTERNATIONAL LESSON
MARCH 23.

Lesson XII. Israel Warned Against Compromise.—Josh, 23: 1 to 24: 28. Golden Text, I Cor. 15: 33.
23: 1-12. The "elders" were chiefs or leading men of tribes and clans who had authority both in civil matters and in war. The "heads" were the representative chiefs of family groups or small kindred clans. The "judges" were either the heads of clans and tribes, or were men specially chosen for that office, as in Exod. 18: 21-22. The "officers" were police marshals, who preserved order, had charge of processions and made proclamations.

"He that hath fought for you." It is a common thing, in time of war, for each of the opposing forces to claim that God is with them. It is better, surely, instead of such a claim, which might seem boastful, to seek most earnestly and humbly to do right and so set ourselves on God's side, for we may be sure, whatever our boast or claim, that God is ever with and will defend the right. The causes of the war which Israel waged for the possession of Canaan are largely unknown to us. It is probably not true to say that it was an entirely cruel and unwarranted invasion of territory to which Israel had no moral claim or right. Certainly Moses and Joshua regarded it as the land of their fathers, promised them by Jehovah, their God. That they were sincere and honest in that belief there is no doubt. If there was an entire disregard of the rights of the small nations which they drove out or dispossessed, then we must admit that a serious wrong was done. We could not acquit of the charge of barbarism and cruelty those who committed to fire and sword a whole city with its people, as for example, Jericho (6: 21), and Ai (8: 25-26), and the fact that they thought it to be pleasing to God does not justify the act in our eyes. At the same time we must remember the customs and standards of conduct of that age, so long before Christ, and their ways of thinking, which were in so many respects different from ours. Our judgment must be reasonable and

which case it does away with the frightful spasms and shortens the course of the illness.
Scarlet Fever.
Vomiting, fever, sore throat, and prostration are symptoms of scarlet fever. The rash appears from twelve to thirty-six hours after the first symptoms—sometimes not till the third or fifth day. It is seen first on the neck, and spreads rapidly to the entire body.

It is contagious from the very beginning and long after the patient has seemed to recover, sometimes even fourteen weeks. It is a germ which remains about the furnishings of the sick room when there has been no disinfection, and contagion from these has been known to occur two years after the sickness. It develops from two to six days after exposure. It is followed by many serious complications, such as inflammation of the kidneys, rheumatism of the joints, heart weakness, thin blood, and bad conditions of the throat. It is a frequent cause of deafness and deaf-mutism. It is most contagious between the ages of one and five.

Wooden handles should first be moistened and sprinkled over with fine, clean, dry sand and then driven into place, and they will stay. The effect of the sand is like that of fine teeth biting into the wood and metal parts till both are firmly bound together. Of course, this does not apply to all wooden handles, but only those in common every-day use.

N.B. SEED POTATOES
Roses, Hebrons, Cobblers, Delaware, Green Mountains and Silver Dollars. Street attention large or small orders.
F. L. ESTABROOKS & CO.
(Dealers in Hay, Potatoes & Produce)
SACKVILLE, N.B.

POTATOES
50 New Varieties can positively be grown from one Packet of Hybridized Potato Seed. Every hill will be different. All colors, shapes and sizes. May be worth a gold mine. Don't miss these rarest and most wonderful of Seeds. Packet, with directions, 15c. for 50c. 10 for \$1.00, with our booklet, "Making the Garden Pay."
HARRIS SEED STORE
360 Dorchester St. W.
MONTREAL, QUE.

Boost Your Local Paper
The small town newspaper can be made one of the largest factors in the uplift of the community. In many local towns the local paper is now the vital spark that keeps business going. It is the organ of the social life of the community and it keeps the friends from forgetting each other. The local paper keeps the former citizen interested in the old home town even after he has moved to the city. Without a live local paper the small town lacks one of the most necessary agents for its welfare.

Why does the local paper appeal to the reader? The boy in France may not worry over the future of the German colonies in Africa, or the boundaries of Siberia, but he does like to know that Bill Jones is painting his barn and that Tom Smith has opened a new grocery on the corner. The small town paper appeals to the citizen of the community in the same manner as it appeals to the soldier. It is the story of much of the life around home and everything that tells of home is very interesting to all of us.

Confidence in the local paper is necessary if it performs the highest service. "Well," says Johnson, "they had a big fight at the school meeting last week." "Is that so," responds Brown, "I didn't read anything about it in 'The Bugle,' and if it's not there it didn't happen." Brown had faith in his weekly paper. A paper that can hold the confidence of its readers has a great responsibility to them, as the readers will take its statements without question and act accordingly. They enjoy the confidence of the community might better not be printed, even though it is somewhat of a financial success. The place of the paper in the lives of the people in the community can be made so important that the value of the influence cannot be computed in money.

Varicose Veins?
WEAR THIS
Non-Elastic Laced Stocking
SAFETY, as they may be washed or boiled deep-rooted and ADJUSTABLE, laced like a stocking, always fits. COOL, contains no rubber. COOL, contains NO RUBBER.
1,500,000 SOLD
ECONOMICAL, cost \$2.50 each or two for the same limb, \$5.00, postpaid. Write for Catalogue and Self-Measuring Guide. Corlies Limb Specialty Co. 514 New Birk St. Montreal, P.Q.

SPRING MUSKRATS
In Big Demand
Highest Prices Assured by Sending to
Wagner, Brasier & Company
84 FRONT ST. EAST
TORONTO
Established 1907
Send a Trial Lot Results Will Please You

A Crop Saver
Top-Dress Fall Wheat With Fertilizers
Frosts and thaws have done considerable damage to Fall Wheat by leaving the soil bare. Spring top-dressing is often the life-saver.
Increases from Top-dressing with Fertilizers
Increase in yields Ohio Experiment Station for a period of 23 years was 13.2 bushels per acre. Ontario Agricultural College reports an increase of 8.5 bushels per acre.
Make sure of your grass catch and increase your wheat yield this spring by feeding the weak plants.
IT PAYS TO FERTILIZE
Write for Pamphlet No. 1—"Feeding for Profit."
The Soil and Crop Improvement Bureau
of the Canadian Fertilizer Association
111-112 TEMPLE BLDG., TORONTO

ABBEY FUR COMPANY
We pay the best price for Spring Muskrats
Send any Furs you have. You are assured of satisfaction in price and treatment.
310 St. Paul St. W., Montreal, Que.
In business for 30 years
Reference: Bank of Hochelaga, St. Henry.

I believe in a spade and an acre of good ground. Whoso cuts a straight path to his own living by the help of God, in the sun and rain and sprouting grain, seems to me a universal working man.—Ymerson.