

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 this question, when the answer will be mailed direct.

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R. B.: What is your opinion on my idea to two acres of strawberries this coming spring, sandy loam, subsoil clay, plowed from grass in fall of 1919, crop of beans, 1920; manured 1921; manured 1920, and 1921 acid phosphate, 16 per cent, placed around tomatoes. I have the tomato vines in ridges and covered over so to make humus in spring. In spring I intend putting this on level and plowing it, sow about 400 lbs. to the acre of a fertilizer, mixture 1,000 lbs. tankage, 6-15-0; 1,600 lbs. pure steam bone meal 4-24-0; 200 lbs. muriate of potash. (I think muriate potash runs 53 per cent.)

Would it be still better to place a light coat of horse manure, work it in separate from the commercial fertilizer? As to planting the strawberries, I intend part pure Brandy Wine, part Williams, part 4 Brandy Wine to 1 Parlatan Beauty. I have these plants of my own pure. Why I am using the Brandy Wine most is I have a year-old patch I intend taking up, and the plants will be two years old in spring and I may have some of these to sell. I find them the best table berry for flavor, to date, on the market.

What would you figure out the analysis of my mixture of commercial fertilizer? How would this be for cherry and plum trees, raspberry coves, also for vegetables—tomatoes, potatoes, carrots, sugar beets and turnips?

Answer: I would advise working in a light dressing of fairly well rotted manure, just as you are working down

the seedbed in spring. After you have disked and harrowed the manure in, apply the fertilizer broadcast or along the rows where you intend to set the strawberry plants.

Your mixture will analyze about 45 per cent. nitrogen, 17.7 per cent. phosphoric acid, and 4.8 per cent. potash. This fertilizer would be good for cherries, plums, raspberries, tomatoes and turnips. Apply same to fruit trees at the rate of about 100 lbs. per tree and to tomatoes and roots at the rate of 500 to 750 lbs. per acre.

I can only advise adding 200 to 300 lbs. more potash to the mixture for vegetables, potatoes, carrots and sugar beets. If this fertilizer is worked into the soil thoroughly it should give you good results.

P. C.: I would like a little information in regard to Sudan grass. I understand that the second and third cutting of sorghum or sugar cane is a slow poison to live stock when cut for fodder and fed for same. Now would this be the case with Sudan grass? Also, how is the best way to sow it, and how much seed per acre, and when is the proper time? I have about five acres. How does Sudan grass compare with German or Golden millet for hay and yield?

Answer: Sudan grass is a coarse sorghum grown in the south. Experiments show that it tends to develop a poisonous principle. Speaking generally, you would do much better in Ontario by sticking to such crops as alfalfa or sweet clover and corn. Sudan grass is especially adapted to much longer seasons than we have here in Canada.

Poultry

H. B.: Will you kindly tell me the amount of grain a laying hen should have?

It is difficult to say exactly how much grain a laying hen should have, because much depends upon the breed and the individuality of the bird. Some breeders have found that one hundred hens will eat about ten pounds of dry mash and ten pounds of scratch grain each day. Others find it difficult to make the hens eat as much mash as bread grain.

In general a tenth of a pound of head grain per hen per day should be about enough if the hen has access to a balanced dry mash, oyster shells, green food and plenty of fresh water. It pays to keep the mash before the birds at all times. Then give them scratch grain in the litter in the morning to keep them exercising. At night give enough grain to send the hens to sleep. A little study and observation of a flock soon tells the owner what the birds need to keep them stocked and in laying condition.

Live Stock Prices Improving.

Every farmer and breeder will be interested in noting the gradual rise in prices that is taking place in live stock. The following figures taken from the weekly report of the Live Stock Branch at Ottawa show an encouraging trend. Taking the average prices that prevailed in November, 1921, and February, 1922, at the five principal markets in Canada, namely, Montreal, Toronto, Winnipeg, Calgary, and Edmonton, it will be found that they compare thus: Steers, 700 to 1,000 lbs., good, \$4.29 to \$5.84; heifers, \$4.34 to \$5.71; bulls, \$2.69 to \$3.65; cows, \$3.80 to \$4.78; calves, \$5.91 to \$8.47; hogs, select, \$8.83 to \$12.96; lambs, \$7.58 to \$10.40, and sheep, \$4.16 to \$6.52. It must be understood that these prices are the average at the stock yards of the whole country and are for good animals in every case. Of course prices are higher in Montreal and Toronto than in the West.

Good advertising of good goods is pulling some farmers out of difficult places.

The Dairy

A few standard crops which will provide the cows with a balanced feed throughout the feeding season, should be the aim of the average dairyman rather than the production of a small acreage of a large number of uncertain crops.

Poor rations fed to poor cows are certain to keep the pocketbook thin. Primitive methods of dairying will not bring satisfactory results under modern conditions of production and marketing.

During the period of lactation the amount of concentrates fed to the cow should depend upon the amount of milk and butterfat which she is giving.

Planting Potatoes.

The best time for planting potatoes varies in the different parts of Canada owing to climatic conditions. Much depends on the condition of the ground and spring frosts, but when these have passed to be considered the earlier the potatoes are planted the larger the crop is likely to be. At this juncture advice given by the Dominion Horticulturist, Ottawa, in his bulletin on "The Potato and Its Cultivation in Canada" will repay perusal. First of all the soil should be well prepared before planting. Spring plowing is recommended. Unlike some crops that succeed best when the soil is moderately firm when ready for seeding, the potato is most successful when the soil is loose. If green manure is plowed under immediately before planting, especially on light soils, the soil should be given extra tillage so as to thoroughly incorporate the manure with the soil and keep the first few inches from drying out. Many experiments have been tried to determine the best kind of sets to plant and, on the whole, it has been found that good marketable tubers cut into pieces so as to have at least three good eyes to a piece, and a liberal amount of flesh, are the best. The sooner the sets are planted after the potatoes have been cut, and the quicker they are covered, the larger the yield will be. Coating the sets with lime plaster or lime increases the yield. The most suitable depth to plant is from four to five inches for good loamy soils.

Good seed is the rock foundation of a good crop.

Windmill Does Double Duty

On a great many farms it is possible to have a complete and up-to-date water system with little expense. In many cases the windmill is located very close to the house, sometimes right on the porch, so it is very easy to pump the hard water into a gravity tank in the house and thus put this water where it can be used to supply the kitchen sink, or a bathroom with water under pressure. Simply have the water pumped first into this gravity tank, which may be located on the second floor of the house or in the attic, and when full let it overflow back to the barn tank.

One farmer whom I visited had contrived a way of making his windmill do double duty. He put a rocker

shaft in the tower of his windmill and connected one arm to his pump rod and the other to another pump rod which extended through the curb or well platform to an ordinary cistern force pump, placed in the bottom of the well pit.

The suction pipe of this pump extended to the cistern and the drive pipe to another tank in the attic. Thus he was able to use his windmill to pump both soft and well water or by the changing of a bolt it would pump either.

This scheme can be used even when the windmill is some distance from the house, as it is possible to pump water from a cistern fifty to seventy-five feet away, the lift usually being very slight.—O. E. Robey.

The Dental Tragedy

Ninety to Ninety-Five Per Cent. of Children Have Decayed Teeth.

BY DR. WILLIAM H. LEAK.

"My grandfather and grandmother they are brought into contact with had fine teeth, Doctor, and my father had good teeth. Never had one out, or never had a cavity. I think that is why I have such fine teeth." I often have patients say something like this to me. Or the patient may conclude his remark by wanting to know why it is that he has such poor teeth. Mr. Brown once remarked to me that the reason he had such a wonderful set of teeth was because at Stony Mills, where he was born and raised, there was considerable lime in the water they drank and he believed this fact accounted in a large measure for his strong teeth. When I asked Brown if his mother also lived at Stony Mills and drank the same water, he expressed some surprise at my question. Then when I told him that he could thank his mother for having used that water and for having eaten good foods, and explained to him that the baby teeth start to form at the fourth month of uterine life and that even the six-year molars of the second set start formation at the seventh month of uterine life, he readily comprehended the value that his mother's diet had been to him in giving him the strong sturdy body which he has.

Not Due to Heredity.

Heredity as little to do with the strength or texture of our teeth; food which we eat has much to do with this. The greatest reason why many of our grandfathers had good teeth was because they ate better and more wholesome foods than we do today. They ate the natural foods, practically preparing them altogether themselves, taking into their bodies the whole of the grain or vegetable without its being prepared in a factory; and having some of its best parts removed to make it more pleasant in appearance and then doctored to tickle the palate.

The greatest factor in the prevention of tooth decay, as already stated, lies in the foods we eat. These operate in different manners. This does not mean that if we have bad teeth that our diet, as some dieticians and nutritionists would lead us to believe. In this connection we must remember that the baby teeth start their development early in uterine life, are built up very slowly, do not erupt until the child is about six months of age and are then on until three years of age, and that even after they erupt the roots are not completed for two or three years. The second teeth start to form late in uterine life and during the first year of infancy slowly develop, erupting in the mouth at between the ages of six and twelve years; the roots take even a longer period to form.

Dental Decay Preventable.

Statistics as to the surfaces upon which decay takes place show us that a large percentage of tooth decay on the cutting or masticating surfaces. Therefore, especial attention should be given to brushing vigorously the cutting surfaces in all directions.

Dental decay is preventable. There is no reason why we should have large cavities in our teeth. The best people are beginning to appreciate this and already we have little children growing up whose mothers have wisely chosen proper food and seen to it that their babies were properly fed. With proper foods and ordinary dental cleanliness, a few boys and girls are now growing up virtually free from tooth decay. In a few years it will be considered disgraceful to have teeth as badly decayed as most people have today. The time is coming when at six and seven years of age not 20 per cent. of the children will have decayed teeth; to-day 90 to 95 per cent. of children of these ages have decayed teeth and this tragedy could be prevented by wise care.

Get Your Customer's Eye.

Not long ago I found a truck farmer who has hit upon a rather spectacular and effective way of catching the eye, and each of passing motorists. He built a windmill about 10 feet in spread of fans and mounted it in a prominent place near the highway. It is a fairly good miniature of the famous Dutch windmill, and this in itself attracts the passer-by. But he went further than that. He conceived the plan of making his eye-catching Dutch windmill do some effective advertising for him as his fans slowly revolved. He arranged suitable slots or grooves on the blades to receive advertising cards conspicuously lettered with the names of various kinds of truck, fruit, and produce in which he specializes. The cards are tin or sheet iron, neatly lettered and painted, and few passers-by needing produce so uniquely advertised are able to withstand the appeal. When once they are enticed to see the produce the sale is assured. A man having such advanced ideas on publicity can be depended on to hold his customers by means of quality, once they are enticed.

When I saw the windmill the blades bore the words, honey, asparagus, fresh eggs, strawberries; while the upright, which is 36 inches wide at the base, carried the announcement, "We beat the Dutch."

There are numerous publicity schemes which depend on some similar principle. It is necessary to have it geared to the public by some means that will please and cause comment. Then keep your publicity method constantly fresh and attractive. When mounting a windmill as described, it is necessary to have it geared so that the revolutions will be slow and steady, no matter what the wind velocity may be. A well-proportioned, neatly built mill, kept tastefully painted, becomes a widely known farm landmark, and can appropriately bear the proprietor's name and the farm name, which in this case cited is "The Windmill Farm."

Another thing greatly needed is schools for developing fellowship as well as leadership.

Starch from clothes will not stick to the iron if a little salt is added when the starch is made.

The country church will serve most when identified closest with the everyday life of the community.

The good farmer is one of the most capable, industrious and steadfast of men and the day society in general recognizes this we shall mark the beginning of another epoch.

SMOKE OLD CHUM

The Tobacco of Quality

1/2 LB. TINS

and in packages

A Poultry Pen Asset.

Poultry manure has both solid and moisture voided together and so, when it is collected daily and used before it dries, a double benefit is derived. When manure gets too dry they denitrify; that is, certain denitrifying bacteria will destroy all the nitrogenous compounds and set off the free nitrogen into the air.

Hen manure is very heating and has large quantities of nitrogen, so when storing it care must be taken that it shall not lose any of its value. Urine is rich in nitrogen, and with the larger farm animals there is a big waste from this source alone, which is not present when poultry manure is used.

The kind of food fed always influences the manure. When hens are given green beans, meat, vegetables, etc., a bigger percentage of phosphorus is found, on analysis, to be present in the excreta.

It is not too much to say that an adult fowl will make twenty-five pounds of excreta a year. Multiply this by the size of the flock to estimate the amount of manure possible.

Pure poultry manure (free from bedding), such as is collected from the droppings boards, is at least twice as rich in nitrogen and five times as rich in phosphorus, as the barnyard manure.

Now because of the very large per cent. of nitrogen in this kind of manure, much of its value soon evaporates if it is left exposed, and so there is a reason for gathering it often. Extra cleanliness includes health, vigor and thrift in the flock.

In summer the droppings may be taken at once to the garden and used, but in winter they should be mixed with a little dry earth and kept stored away from the weather, in covered boxes or barrels.

Do not sprinkle wood-ashes nor air-slaked lime on the droppings boards to keep them sweet, for the lime contains much of its value soon evaporated in the wood-ashes will at once react with the manure and drive off the ammonia which holds the nitrogen, the much-sought-after and expensive plant food, and the very thing we want to save.

Gypsum (land-plaster) is very good for use on droppings boards, and so is finely ground phosphate-rock. When very fine the latter is a good insect-powder, and makes a good filler for the dust-box.

The kind of plants that gain greatest benefit from hen droppings are the leafy crops, which require a great amount of nitrogen, but the droppings can be used with excellent results for roots, corn, cereals, etc.

For feeding newly hatched chicks, etc., I have never used anything so good as liquid manure made from hen droppings. Put a pailful of droppings into a tub of water and let it stand in the air for a day or so, stirring once in a while. A little of this impregnated water poured about the young plants seems to make them fairly jump out of the ground.

Nitrogen from any source would be worth at least ten cents a pound.



Bedtime Stories

The Peddler.

A peddler came to our house; His coat was green and worn, His hat was very dusty, His shoes were most forlorn; Besides, he carried on his back A heavy, lumpy, oilskin pack. "Poor man!" I thought, "Poor man!" Then—he began!

And, oh, if you could just have seen That pack when it was spread! Brooches and coral, combs and rings, Glass beads and laces, Looking glasses, Beeswax and pearls and thread; Perfumes and scissors, bolkins and things; Thimbles and emeries and tape and twine, And sachets and bracelets I wished were mine; And cards and pencils and paper and ink, Pens and erasers, You'd never think, You'd never dream all the things that he had;

Enough to make Robinson Crusoe glad! Cook bought some post cards and hairpins and thread, But I'd have liked bracelets and rings instead. If I'd had money to spend, Oh, well, It's a funny old world; you never can tell.

What kind of people will come to the door, Who are maybe rich when they think they're poor, It's a funny old world, for you'd never suppose That a man with a rusty, dusty hat And forlorn old shoes all scuffed at the toes Was a gentleman quite so rich as that!

The Robin's Diet.

Robins obtain most of their insect food on the ground. It consists of cutworms, wireworms, ground beetles, earthworms, caterpillars of all kinds, spiders, grasshoppers, crickets, slugs, and the white-winged fly which does so much damage to grasslands. The tick beetle, the parent of the wireworm, is also included in Robin's diet. Every farm should encourage Robin guests. If boys are handy with tools they can make a Robin shelf for the Robin family to nest upon. It proves a safer nesting site than the crotches of trees.

Take Time by the forelock And plan the garden now; When spring has come there'll be no time Except for spade and plow.

Ah, March! We know that art Kind-hearted, spite of ugly looks and threats, And out of sight art naring April's violets.

WAITING

"I want to show you something," Annie said suddenly. They were in Little Anne's room, and Anne herself was in her tiny chair, rocking her beloved Rose Buttercup to sleep. Little Anne had two rooms; one was furnished with a bed, a table and a dresser just high enough for a little girl of five years; the other was filled with beautiful mahogany furniture that her great-grandmother had owned. She would move into that room by and by—when she loved it enough, her mother said.

Though Helena had been in Anne's "grown-up room" countless times, she never had known what was in the drawers of the old highboy. As Annie stood there unhooking them the sunlight that fell across her slight black-gowned figure, revealed small, hard lines round her mouth and eyes. Anne never had become reconciled to her husband's death. She said little, but Helena, who had loved her all her life, knew. Once she had said briefly that God had gone with Roger; she couldn't find Him any more.

When Annie turned back from the highboy she held three boxes in her hand. "Here are more things," she said, "but these are the three that I'd have adored when I was a child. Sometimes I feel that I can't wait for Anne to grow up to them. They all belonged to Roger's mother."

She opened the boxes. The first contained a set of glass dishes—tiny fluted and scalloped things of ruby and amber and green that looked as if they were made for fairies. Helena exclaimed in delight. "Why," she cried, "I never saw anything like them even in a museum!"

"I know. I suppose they came from abroad. Won't Anne love them! And then this ivory fan and finally the pearls." I kept them in my safe-deposit box most of the time, but I wanted you to see them. What is it, Helena? You look so startled."

"Not startled. Only you are such an illustration. Do you remember that verse in the Psalms, 'How great is Thy goodness, which Thou hast laid up for them that fear Thee'—the beautiful things that God has waiting for us as soon as we grow up to them? Do you think you know more about loving than God does, Annie Pemberton? Who taught mothers to love in the first place? Don't you suppose that He is waiting just as eagerly for you to grow up to some of His wonderful gifts as you are for little Anne?"

Composts as a Source of Humus and Nitrogen.

The examination of many types of soil—clays, silts and sands—virgin and cultivated, has furnished evidence of a very emphatic character regarding the fundamental and vital importance of semi-decomposed organic matter (humus) as a soil constituent. It acts mechanically in improving tilth, lightening and mellowing heavy soils and increasing the moisture-holding capacity of all classes of soils. It supports the microscopic life of the soil, the function of which is to prepare plant food for crop use. And, lastly, it is the natural storehouse of nitrogen—the most expensive of all plant foods when purchased in the form of fertilizer. One of the chief objects in view in any intelligent, rational method of soil management, is the upkeep and, if possible, the increase of the soil's humus content. Applications of farm manures and the turning under of green crops—clover, buckwheat, rye, etc.—are the principal means of adding humus-forming materials to the soil, and these may be supplemented, cheaply and effectively by composts.

Every farm, every market garden, should have its compost heap, for such affords the most economical (and sanitary) means of utilizing the vegetable and animal refuse, indeed all forms of organic waste. To enumerate some of the materials that can be profitably used in this way: potato tops, cabbage leaves, waste straw, dead leaves, kitchen waste, old sods, the cleanings of dishes, food scrapings, muck and peat, pond and stream deposits; all these materials and many more rich in organic matter may be composting in converted into a forcing manure of very considerable value by reason of its humus content and its store of readily available plant food. In these days it behooves us to abandon our wasteful ways and utilize everything that we make the land more productive. The practice of turning all organic refuse is an exceedingly wasteful one and should only be followed when, by reason of the presence of the eggs, spores and seeds of injurious insects and plants, the composted material would be likely to disseminate disease.

The making of the compost heap is a very simple affair. It can be built up of alternate layers, of six inches, of refuse (including swamp mud, if such is obtainable) and manure, or any convenient height, covering the whole with a few inches of good soil or muck. The heap should be kept moist, that decay may proceed, but not so wet as to cause drainage from the heap. The result, in a few weeks or several months, according to the season of the year, will be a manure of very considerable fertilizing value, capable of improving both dry and sandy lands and especially useful for vegetable and garden crops.

Remember, fertile soils are not made in a day.

DYSPEPSIA IN A CHAPLEAU MUCH HEALTH MEAL TIME

"The Way To My Trouble" **piest Surprise**

"About the surprise of my life in which Taniae relief," said Vignette Ave, Mont. "I was in a terrible condition for three years stomach troubles at the point where one could hardly eat. I was as I knew that my I was I would not my hands shook like a leaf and I could not sign my name."

"I am like a new man. Everything is all right. My nerves are all right and I feel like a new man. Taniae is sold by..."

Bite off more than you can chew. Then when it comes to sign your name. Keep your coat, and...

Survivor

Convalescence

Remember that while not Gaelic and therefore to the Irish in language are the Highland Scots nevertheless decidedly Welsh. Most people are of this stock. It is exclusively Irish. If people will tell you that it is a Welsh name, the evidence goes to show more often traces of origin than to any other. And if it "sounds" Irish, remember that while not Gaelic and therefore to the Irish in language are the Highland Scots nevertheless decidedly Welsh. But you must look for Welsh names not so many names and given names names of localities. For considerably beyond this which family names of stabilized and fixed in Welsh though common identifying the individual referred to as "John-son" of Evanson-of-the-lack as far as it was in this system finally had the shorter family name English influence. The most part, adopted either "son" form of family name family name denoting location. Conway is the name (from "con," "principal" "river"), which flows into it at Aberystwyth and which Merionethshire.

Did you with st...

There or milk, etc.

Go to of delicious will digest and it will richly nour

Grape