Farm Crop Queries

Henry G. Bell.

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, and answers will appear in this column in the order in which they are received. 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.

Question—A.F.:—I have a five-acre field with good natural drainage, which I want to get into alfalfa next year. It was well manured two years ago, and sowed to wheat; not seeded last year. Plowed last fall, and beans planted this spring without fertilizer. Shows a good stand of beans. The soil needs lime. Will you kindly tell me the best way to start the alfalfa, also when and how to lime the soil?

Answer:—When the beans are harvested have the ground plowed deeply. As soon as the soil is dry enough to work next spring, apply a dressing of ground limestone at the rate of at least a ton per acre. Work this into the soil by disking and harrowing. About two weeks later sow a bushel to a bushel and a half of barley as a nurse crop at the same time seeding with 20 to 25 pounds of good alfalfa seed per acre. In order to insure a good catch of alfalfa, I would advise the addition of 200 to 300 pounds of fertilizer per acre. This can be drilled in at the same time the seed is sown, if the seed drill has a fertilizer distributing attachment. If not, the fertilizer can be broadcasted the same as was the lime and worked into the soil by a light harrowing just previous to the time the grain and alfalfa seed is sown. This fertilizer should carry from 2 to 4% ammonia and from 8 to 12% available phosphoric acid. It would be well also to have 1 or 2% potash, if it is obtainable.

Question—H.H.:—I have an eight-acre field which I want to sow to oats in the spring. This piece of land is sandy loam and in a fair state of fertility, having been covered with manure in the last two years. It produced a good crop of corn this year. I want to get this field seeded to clover, no clover having been grown on it for the last six years. How would you advise sowing the clover to insure a catch? Would you inoculate the seed? I have clover chaff from about 25 loads of clover seed. Could this be used to inoculate by spreading on the field after it is plowed and worked in the soil with a harrow?

Answer:—After the corn has been harvested, deeply fall plow the soil and in the spring apply a ton to a ton and a half of ground limestone per acre. Work this in with a careful disking and harrowing. In sowing a mixture of clover and timothy, you can profitably use 10 lbs. of clover and 4 lbs. of alsike to the acre, as well as 5 or 6 lbs. of timothy seed. Make sure that you get good vital seed. That is, have your seed purchased by early spring. Count out a couple of hundred seed as an average sample. Place these between two damp blotters. Keep the blotters medium damp but not soaked. Place them on a plate and keep the seed near some source of warmth. In a week or ten days the seed should have sprouted sufficiently to ascertain the percent of good strong seed. If only 75% of the seed germinates strong, increase your seeding about 25%.

I would advise inoculating the seed but not by mixing it with clover chaff. Write to Prof. D. H. Jones of the Bacteriological Department of Ontario Agricultural College, Guelph, and obtain a culture for clover seed from him. This bottle of material contains the pure line of bacterial life that lives on the roots of the clover seed. Apply this as directed and you will get better results than you would otherwise.

In order to still further insure a catch, I would advise drilling in 200 to 300 lbs. of fertilizer per acre, as advised in answer to A. F.

Question—B.K.:—I have a field that is seeded to clover on the north half, and the south part is in corn this year. I wish to use the whole field for cow pasture next year. What can I sow on the south part that will make good pasture?

Answer:—After the corn has been harvested, I would advise you to fall-plow this part of the field and as soon as the soil will work in the spring, sow the following mixture:—one bushel each of wheat, rye and barley. For pasture purposes it will not make any difference whether you use fall wheat or spring wheat for spring seeding. With good weather this pasture should come along so that you can use it in six weeks. Avoid pasturing too heavily, and on the other hand, avoid allowing any of the grain to come to head. This mixture has given good results on many farms in Ontario and in tests at Ontario Agricultural College.

Question—W.F.:—I have three acres of land which I plowed up last spring being old sod with some June grass, and put it into barley. Could I work it good now and sow part of it to sweet clover this fall for pasture next summer? It is first class clay loam nice and level and dry. Would you advise me what would be my best course to take to have good pasture for next summer?

Answer:—I would not advise the growth of sweet clover for pasturage next spring. I have examined this crop as it grows in the Eastern half of this continent and have not been impressed with its usefulness as a pasture or hay crop.

On sandy soils where there is a desire to increase the organic matter rapidly, sweet clover can be grown and plowed under to good effect.

If you wish next summer's pasture for temporary purposes only,—that is, for the one summer,—I would advise you to work the ground as you indicate and to sow a mixture of rye and winter wheat this fall. As soon as the crop has made a fair spring growth, it will be ready for pasturing and will continue to give good pasturage as long as you prevent the grain from coming into head.

As soon as the snow begins to go off in the spring, I would advise you to sow 10 lbs. per acre of common red clover seed on the rye and wheat ground. The alternating thaws and frosts will work this seed into the ground and the young clover will come along so as to fill up the bare spaces and to make a substantial backing to the grain pasture.

If you wish to seed your ground to a mixture that you want to stand for two or three years, I would advise you to work it as you recommend this fall, and seed it to a light sowing of winter wheat or rye, say one bushel per acre; also sow timothy seed at the rate of 6 or 8 lbs. to the acre. As soon as the winter snows begin to go off, sow a mixture of 6 lbs. of common red clover and 4 lbs. of alsike per acre as recommended above. Cut the wheat as soon as it is ripe so as to give the grass and clover mixture an opportunity to make a good substantial growth.

THE CONSERVATION OF FOOD

An Article Dealing With Two Subjects of Vast Importance in the Present Crisis, Namely, the Saving of Wheat Flour and the Problem of Milk Supply.

By Abby L. Marlatt, Specialist in Scientific Home Management.

The enthusiasm with which the bread-makers (and bread-winners) of the country are attacking the problem of conserving wheat flour is shown by the appearance of new recipes for different types of bread designed to save wheat.

All these recipes fall into general classes determined by what has been substituted for wheat, or by what grain or cereal or vegetable has been mixed with the wheat in order that less wheat need be used.

Wheat, as it comes to the housekeeper's kitchen flour bin, is in three forms: white flour, whole wheat flour, and graham flour. The white is wheat ground and refined into a multitude of grades. The whole wheat includes all constituents except the bran. The graham keeps everything, even the bran. In all, of course, there is variation dependent upon the manufacture. Wheat flours show a very starch content, low mineral ingredients, and a medium amount of protein or tissue-building material. Add to wheat flours other starchy cereals or vegetables, such as rice or potato, and you increase the starch proportion of the whole. In like fashion any of the three elements of the flour may be varied by the character of whatever other grains, cooked or uncooked, are added.

Bear in mind this principle of substituting some other ingredient for part of your wheat flour, for upon it is based the sort of "war bread" which, in various forms, is a favorite with the recipe makers. This is "brown crumb bread."

The Use of Bread Crumbs

When the first cook stove was in its infancy the use of bread crumbs in cookery was antique. Undoubtedly the ancient Romans used them; certainly every housewife to-day knows that bread crumbs have their usefulness in deep frying, in scalloped dishes, for puddings, for meat stuffings, and for decorating vegetables and meats. And at the present time many a wideawake housekeeper is realizing that bread crumbs may be used in bread making.

Prepare the crumbs from stale bread left over from the table, from trimmings of crusts, or from dry rolls. Brown in the oven and pulverize. Of course no bread should be used for this after it has begun to mould. After pulverizing, seal the crumbs in jars into which moisture and spores of mould cannot penetrate. The method of utilizing the crumbs is practically uniform. The bread sponge is made in orthodox fashion, with milk or water, with salt, sugar, and shortening, yeast and flour. Then the pulverized crumbs are added to form the sponge into a dough. Some declare that 50 per cent. of the flour ordinarily used is saved. But if the wheat flour employed is low in gluten (that tough, elastic property of wheat flours) then something less than 50 per cent. of crumbs must be used. Any woman with a taste for experimentation will be willing to try out different proportions until she learns just how much of other products she can use in her wheat bread and still attain the spongy, elastic loaf which the family relishes.

Many who have tried this declare that the result is nearly identical with regular whole wheat bread, differing only in its darker color and its sweet and nutty flavor due to the browning of the crumbs.

Hotel-men have seemingly utilized this type of "crumb" bread extensively, and declare that their patrons have been most enthusiastic. And the conscientious housekeeper seeking economy should not scorn such a source of experimentation. For, whereas many a woman at home has always cooked in a stereotyped, rule-of-thumb way, practicing economy only when it happened to suit her, the hotelkeeper always has to make both ends meet. He knows.

Milk is a Most Valuable Food

One never speaks of milk without thinking of the child, and in any discussion of voluntary saving of foods during the present crisis, the rights of the child stand first. For, in the last analysis, the future of any nation is determined by the care which it to-day gives to the child.

Nature has stated, in no uncertain terms, that milk is the essential food of infants and the young child. All experiments to-day prove that we have made no advance over nature in any attempt to substitute other foods for this essential in the diet of the child. Not that milk is an ideal food. It is, however, the nearest approach to an ideal food for the child that we have.

Given alone it is not satisfactory beyond the first few months and must be supplemented by other foods which will supply the necessary mineral matter in the form of iron to aid in building the red blood corpuscles. Even the modification of milk will improve the diet for the child. This may be accomplished through the addition of water in which cereals have soaked.

Milk and cereals are very satisfactory combinations for the young, as the milk supplements the mineral deficiencies of the grains and furnishes the absolutely essential stimulant for growth.

As a stimulant to growth, milk, along with the yolk of egg, stands at the head of the list. Both of these contain fat soluble substance. If these are omitted from the diet, the child is retarded in growth, and such a serious case of malnutrition may result that the child may die.

It is for these reasons that to-day the pressing need is to encourage the dairy industry. On the size of the dairy herds and the measure of their milk production will depend the ability to safeguard the health and nutrition of the people. Not that adequate nutrition may not be secured without the use of milk, but with the high prices of food to-day, there is no advice that can be given to the mother of a family that is of more importance than to continue to supply milk for the young child of the family.

Variety of Milk Dishes

The fact that the growth stimulants may be increased through the use of the green leaves of such plants as spinach, beet and turnip tops, dandelion, chard, water cress, lettuce, endive and cabbage is not so well known as it should be. Older people can get this essential food product from these sources. This growth stimulant is supplemented by the use of butter and skim milk in the preparation of food used at the table.

Every housekeeper knows the infinite variety of foods that may be prepared with milk; creamed vegetables of every kind; creamed gravies, using all kinds of meat, poultry, fish and game. Creamed sauces used as a basis of vegetable soups and cheese dishes. Croquettes and souffles will give the peculiar value of the milk, along with the other great value of the vegetables or meats, the mineral matter, flavor and energy, and in most of the cases enough of the protein, or tissue building, for adequate growth.

Do not throw away any sour milk. The use of it should be encouraged as an essential part in the preparation of the quick bread, cakes and some sauces. Where the amount left over is sufficient, it may be used to make cottage cheese. But also save the whey from the cottage cheese for it should be used in bread making and some types of soups, in order that the valuable mineral matter of the milk may not be wasted.

Your Problems

Conducted by Mrs Helen Law

Mothers and daughters of all ages are cordially invited to write to this department. Initials only will be published with each question and its answer as a means of identification, but full name and address must be given in each letter. Write on one side of paper only. Answers will be mailed direct if stamped and addressed envelope is enclosed.

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

Mrs. T.:—1. To remove spots from your suit, mix a little cornstarch into a paste with gasoline, rub this on the spots and let it remain until dry, then brush out with a whiskbroom and you will find that unless the stains are very stubborn they have disappeared. Keep away from any fire while doing this. 2 A good freckle and sunburn lotion is 1 ounce of hydrogen peroxide, 1 ounce rosewater, and 2 ounces witch-hazel. Apply several times a day. 3. A dry, well-ventilated place, such as an attic, furnishes a good storage place for onions in winter, as slight freezing does not injure them, provided they are not handled while frozen. To keep well, onions must be matured and thoroughly dry. 4. It is said that eucalyptus oil will remove grease stains from any kind of material without injuring it. Apply the oil with a clean piece of flannel and rub the material gently until the stains disappear.

M.C.S.:—A common cause of tired and swollen feet is weak instep. Examine for symptoms of flatfoot. Rheumatism is another very common cause. Take an alternative hot and cold foot bath at bedtime. Apply a moist pack to the feet over night—a moist towel covered with mackintosh and flannel. Massage with cold cream is also useful. If varicose veins are present bathe in cold water twice daily and apply an elastic bandage or a cotton flannel bandage, cut on the bias about two and one-half inches in width.

Lucie:—1. There are two "Dominions" in the British Empire, Canada and New Zealand. 2. The British Court is known as the Court of St. James's because the official residence of the King of England was at St. James's Palace from the reign of William III. to the year 1837, in the reign of Victoria. In that year the Queen and all the rest of the royal family moved to Buckingham Palace, so far as concerns board and lodging, mere physical facts. In theory the court still resides at the squat and ugly edifice of St. James's, and levees and drawing rooms continue to be held there in support of the legal fiction. The name of St. James appears in connection with the present edifice because a hospital for lepers was occupied on the site before 1190 under dedication to St. James the Less. In 1532 Henry VIII. took over the property from its monastic possessors, destroyed the buildings and erected the palace, of which Hans Holbein is said to have been the designer. While little of the old Tudor palace survived the fire in 1809 the chimney piece in the presence chamber displays the initials H. A. as a reminder that at the time it was constructed Anne Boleyn was Queen. 3. To correct stooped shoulders try to get out of the habit of allowing them to droop, and sleep with a very small pillow or none at all. Several times a day bring the forearms at a right angle with the arms, and place a broom-stick or other suitable stick in the angles thus formed in such a way that the stick will come behind the back, and keep it there for a few minutes, walking if desired. Inflate the lungs often and in other ways develop your chest muscles. "Shoulder braces" are not recommended.

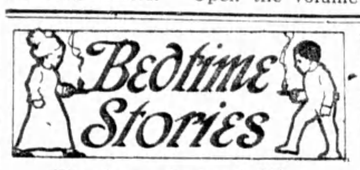
R.B.:—A good plain abundant dinner, promptly served, is more popular with the threshers than a fancy one. The day before they are to come, bake pies and brown bread, then heat the former and steam the latter a few minutes while preparing dinner, which freshens both. In the morning stew a big kettle of apples with sugar enough to make a jelly-like juice over them, and these are very popular along with the ham or salt pork, which the men usually prefer to a chicken dinner. The pork fried brown and crisp and with plenty of rich milk gravy is liked along with mashed potatoes, sliced onions and tomatoes. Green corn, in season, is always liked, while cole-slaw or boiled cabbage goes well with the pork.

How to Open a Book.

Hold the book with its back on a smooth or covered table; let the front board down, then the other, holding the leaves in one hand while you open a few leaves at the back, then a few at the front, and so on, alternately opening back and front, gently pressing open the sections till you reach the center of the volume. Do this two or three times and you will obtain the best results. Open the volume violently or carelessly in any one place and you will likely break the back and cause a start in the leaves. Never force the back of the book.

Young pigs should not run in heavy pastures when the dew is on the grass.

In wintertime we talk about scratch sheds to make hens work for a living, but how about the summertime? We make our hens dig in the scratch shed litter every day in the year.



The Seven Ducky-Daddles.

There were six eggs under Amanda Ducky-Daddle. When they hatched out she counted them: "One, two, three, four, five, six, seven! I can't believe it!" she cried.

But there they were, seven downy balls!

Amanda and her seven little Ducky-Daddles lived near the pond. Every day she took them out and showed them how to hunt under the grass for worms.

But before they left the house she cautioned them: "Keep close to me. If you stay away a big black Towser-Cat will hurt you; and perhaps he will eat you up. When I say, 'Quack! Quack!' you must all come quickly."

One day, when the seven little Ducky-Daddles were hunting for worms, Amanda saw something furry behind the gooseberry bush.

"Quack! Quack!" she called loudly, and all of the Ducky-Daddles hurried under her wing.

"Keep close to me. I see Towser-Cat behind the bush!" Mother Amanda continued sharply.

And of course they all stayed close to their mother until Towser-Cat had gone away.

Another day Amanda Ducky-Daddle had to go to town to buy rubbers for the seven little Ducky-Daddles. She called her children about her and wrapped them in their red knitted mufflers. One by one she kissed them good-bye and said, "Stay near the house, and if you see Towser-Cat run in quick and bolt the door."

Then she took her umbrella, in case it should rain, and went out.

Half an hour later the seven little Ducky-Daddles were hunting for worms, when Sammy, the oldest, saw something black behind a gooseberry bush.

"Run, run; it's Towser-Cat!" he cried.

They all rushed for the house, but Ezra Ducky-Daddle tripped over his red knitted muffler. He felt a dreadful scratch down his back, and he was sure that he had lost a lot of feathers; but he scrambled up and hurried into the house, where he helped his brothers bolt the door.

When Amanda came home she found seven very frightened little Ducky-Daddles.

"If you eat a great deal, you will soon be so big that Towser-Cat will not dare to chase you," she said to her seven frightened children.

And at supper they ate all of their bread and milk, and even asked for more.

A few days later Amanda Ducky-Daddle had to go to market to buy a new broom. As it was raining, all of the little Ducky-Daddles helped her into her rubbers and then put on their own.

One by one she kissed them good-bye and said, "Stay near the house, and if you see Towser-Cat run in quick and bolt the door."

Then she took her umbrella and started for town.

The little Ducky-Daddles were hunting for worms, when Sammy saw something black behind the gooseberry bush.

"Run, run!" he cried. "It's the Towser-Cat!"

They all started for the house, but their rubbers were so heavy that they could hardly run and Towser-Cat soon caught up with them. Before the seven young Ducky-Daddles could shut the doro, his big black paw was inside.

They all pushed the door as hard as they could, but it would not shut.

"Hold the door tight and I will pull the gooseberry net over him!" cried Sammy, jumping out of the window.

"Look out for his claws!" Ezra called excitedly, as Sammy pulled the net over Towser-Cat; when he was all tangled up the seven set up a shout;

"Let's push him into the pond! Let's push him into the pond!"

Towser-Cat looked like a bundle of strings, as the seven excited Ducky-Daddles pushed him over and over. They rolled him down the hill, over the banking, and splash! into the pond.

"Push him way out to the middle, where it's wettest," said Ezra.

In the excitement all of the seven little Ducky-Daddles fell into the pond, and all of them lost their rubbers as they tumbled over one another.

"I've lost my rubbers!" called Sammy.

"So have I!" cried Ezra.

And "So have I!" cried all of the others, and they swam out into the pond after their rubbers.

When they returned there was no Towser-Cat. He had scurried up the bank and run away.

Now you know why Towser-Cat does not like the water.

Poultry

Improper feeding impairing digestion, or too much dry feed will cause hens to become crop bound, which is indicated by loss of appetite and distended crop followed by difficult breathing.

Give teaspoonful castor oil; knead the crop. If this fails to give relief an operation could be performed as a last resort.

Poultry are naturally of a hardy nature. It is mainly on account of some neglect that they become diseased. A smooth plumage is noticeable in fowls possessing good health, and the comb and wattles are bright red in color. The droppings, too, are more or less hard, of a dark-brown color and capped with white. Other indications of good health are a bright eye, a good appetite and an active gait.

As a summary, birds that are bright, active, with keen appetites, clear eyes, red comb, smooth plumage, clean legs—the male that crows, "talks," fights and digs; the female that scratches, "sings" and lays—are birds that enjoy good health; from such can be expected healthy chicks.

There is not much hope for the man who is all the time shifting from one breed to another. Get a good one and stick to it like a dog to a root. You will win.

Hogs

Too many breeders are so anxious to get returns that they breed young sows before they are developed. The result is that the sow never turns out to be what she would have had she attained her growth before farrowing.

The best cross to produce pigs for bacon is one between pure-bred boars and sows of the same breed. To speak plainly, crossing of breeds is rather risky except in the hands of one who thoroughly understands breeding, and such men do not practise it to any extent.

Many newly-born pigs die immediately after delivery just for lack of a helping hand. If a sow farrows nine pigs and loses three, a loss of one-third is experienced; but few look at the matter in that light. They generally consider themselves fortunate that the other two-thirds of the litter pulled through.

About three weeks before farrowing, pregnant sows may be given a ration consisting of nine parts of rolled barley and one part of tankage, or three pounds of skim-milk to one pound of the barley. This method of feeding will insure strong, lusty, active new-born pigs.

Although your choicest young animals fail to win ribbons at the fairs, the efforts for better stock have not been wasted.

The Sunday School

INTERNATIONAL LESSON SEPTEMBER 9.

Lesson XI. The Benefits of Total Abstinence (Temperance Lesson)—Daniel 1. Golden Text—Dan. 1, 8.

Verses 1-7 furnish the historical background of the incidents subsequently related. Among the exiles carried from Judah to Babylon were four young men who were appointed to receive their education at the royal court. Provision was made that they should have the same kind of food and drink as was served on the royal table.

Verses 8-10. Loyalty of the four young men to their religious convictions. Defile—The defilement might be due to several causes: (1) the meat might come from unclean animals; (2) the animals might not have been killed in the proper manner; (3) the food and drink might have been consecrated to a Babylonian diety. These are all ceremonial considerations; but it must be remembered that by the later Jews ceremonial uncleanness was placed on the same level as normal uncleanness. Eunuch—Eunuchs are still common at the courts of Oriental rulers. Find kindness—Jehovah showed his appreciation of the fidelity of the young men by making their lot easier; he made the official in charge of them kindly disposed. Worse looking—Through lack of sufficient or proper food.

11-16. A successful experiment. Though the chief of the eunuchs did not grant Daniel's request, the latter felt that it was safe to push the case. He, therefore, persuaded their overseer to try them for a short time on a vegetable diet. He agreed, and when the experiment proved a success the "unclean" food was withdrawn permanently. Steward—A subordinate official, who was in personal charge of Daniel and his companions. Pulse—the reference is to vegetable food in general. Fairer . fatter—The thought is that in recognition of their fidelity, Jehovah gave exceptional food value to the vegetable products they ate.

17-20. God rewarded their faithfulness further by bestowing extraordinary intellectual gifts. Learning—Better, literature. Wisdom—Better, science. The young men surpassed all others in their knowledge and appreciation of literature and science. Daniel excelled also in unique prophetic powers. Stood before—They were appointed personal attendants of the king. Magicians . . . enchanters—The two terms may be used here with a very general meaning—men of learning. The divinely bestowed wisdom of the young Jews was far superior to the learning of the wise men of Babylonia. Thus fidelity and obstinence received their reward.

The dial of a new bathroom scale faces upward so that a person standing on it can read his own weight.