

# 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, and answers will appear in this column in the issue 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 alfalfa seed per acre at the same time as a nurse crop at the same time as 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.E.—**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 timothy 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 sowing. 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.

**Question—B.K.—**I have a field that I intend to sow to alfalfa in the spring. I wish to use the whole field for 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 sweet clover this fall for pasture next summer? It is first class clay loam 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 pasture 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.

# 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. Mariatt, 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 you increase the starch 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 cooking 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, and for decorating vegetables and meats. And at the present time many a wide-awake 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 as water, 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 employed is low in gluten (that tough, elastic property of wheat flour), and that something less than 50 per cent. of crumbs should be used. Any woman with a taste for experimentation will be willing to try out different portions 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.

**Variety of Milk Dishes**  
The fact that the growth stimulants may be increased through the use of 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. Creamed soups and soups with vegetables or meats, 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 in some types of soups, in order that the valuable mineral matter of the milk may not be wasted.

He made the official in charge of the kindly disposed. Worse looking—Through lack of sufficient or proper food.

11-16. A successful experiment though the chief of the enuchs 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—reference is to vegetable food in that in recognition of his fidelity, Jehovah gave exceptional food value to the vegetable products they ate.

# Your Problems

Mothers and daughters of all ages are cordially invited to write to this department. Initials only will be published with such questions and the answer 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. 2. 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, though they are not handled while frozen. To keep well, onions must be matured and thoroughly dry. 3. It is said that cucurbitus 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—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 moved to Buckingham Palace, so far as concerns board and lodging, mere physical facts. In theory the court 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.

**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 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

**Bedtime Stories**  
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. When I say, '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 warned 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.

# ON DUTY

My grandfather was swapping tales with a fellow boarder on the porch of a summer hotel, writes a contributor, while I, a small boy of ten or so, dangled my legs from its railing and listened.

"One of the worst shocks I ever had came when I was twenty-four years old," he said. "I'd been working my way up in a drug store since I was seventeen, and was finally trusted to put up prescriptions. I had just decided that my increased earnings made it possible for me to offer myself to a girl with whom I was desperately in love, but of whose love for me I was miserably in doubt—when she came into the store one night with a look of terror on her face. Her little brother had been taken suddenly ill, her father was out of town, the doctor dare not leave the child, they kept no servant, there were no telephones in those days, and she had come alone from a suburb across the river to get a prescription filled.

"I know she almost wringshaped the poor little fellow who was, as she feared, dying; but I couldn't even desert my post in the store to go back with her; and she was soon running back alone to catch the last train. "After watching her out of sight, I turned back into the store and began to paste the prescription into the book, when suddenly my mind gave an awful sort of backward somersault, and I knew that I had made a mistake in mixing the medicine that would kill the child, if he still lived when his sister got to him!

"The ferry was a mile away and I was a swift runner, and I could still catch her, but there would be nothing to substitute for the poisonous me I had given her. I looked at the clock; in fifteen minutes the ferry would start; the prescription, although powerful, was simple, and could be put up in ten minutes. For the fraction of a second I hesitated; then I mixed it, and started.

"I reached the ferry, as you may guess, almost exhausted, but in time, if things had run as accurately in those days as they do now; but the boat was already halfway across. I roared and yelled, but they either didn't hear or wouldn't heed me, and went steadily on. Then I swam for it. I knew that I would be too late, but somehow I had to keep going. I stumbled up the bank on the other side and ran on again with such a feeling of terror as I have never since experienced!

"I met the doctor coming out of the gate, and saw the girl I loved, who had been speaking with him, just turning back to the house. The doctor stopped and stared at me in the moonlight.

"Hello!" he shouted. "You are the drug-store chap, or his ghost! If you are the real article, you'd better get a new job! I knew the minute I smelled your bottle that you'd blundered, but, thank God, the baby has turned the corner and will get well without any of your help or hindrance!

"Well, man though I was, I simply went down in a heap at his feet; and he—who in spite of his rage was as tender-hearted as a baby—carried me into the house, and when I came to, 'sonny' (turning to me, whose look of intense interest had caught 'my eye), 'when I came to, sonny, I was lying in my wet clothes on the parlor sofa, and your dear grandmother was crying over me and choking back her sobs so as not to wake the sleeping baby."

**Can Hens For Winter Use.**  
"Canned chicken" may be made at home in your own kitchen out of the old hens that ought to be killed anyway.  
The method of operation for what is known as "straight pack" by the trade is very simple, and is given in detail as follows by Dr. Ronald Barnes, Chief of the Meat and Canned Foods Division, Health of Animals Branch, Department of Agriculture, Ottawa—  
Clean and cut up the chicken; sort out the fleshy portions, such as the legs, thighs and breast.  
Break off the protruding portions of the bones in each piece. Pack these fleshy portions in a gem jar or other container, as closely as possible; add salt and one-eighth teaspoonful of pepper. Fill to within three-quarters inch of overflowing with the liquid that comes from the balance of the chicken, process for preparing which is given below. Place in boiler or other vessel containing warm water and gradually bring to a boil.  
For pint jars boil two and a quarter hours; for quart jars boil three and a half hours. For the balance of the chicken, place in kettle and boil till the meat will strip freely from the bones; strip off all meat and pack in jar. Pour thereon the balance of the liquid in the kettle that has not been used in the first jar. If there is not enough liquid to fill the second jar add water. Place in boiler as above and boil as follows: For pint jars, one and three-quarter hours; for quart jars, two and a quarter hours.  
If desired, the whole of the chicken may be prepared the same as the last part. In all cases take care not to expose the gem jars to a sudden change of temperature. Also, after the jars have cooled off, examine the tops to see that the covers are airtight.

### 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.

### Hoops

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 Sunday School

INTERNATIONAL LESSON  
SEPTEMBER 9.

### Lesson XI. The Benefits of Total Abstinence (Temperance Lesson)—Daniel I. 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.

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