

# Farm Crop Queries

CONDUCTED BY PROF. HENRY G. BELL

The object of this department is to place at the service of our farm readers the advice of an acknowledged authority on all subjects pertaining to soils and crops. Address all questions to Professor Henry G. Bell, in care of The Wilson Publishing Company, Limited, Toronto, and answers will appear in this column in the order in which they are received. When writing kindly mention this paper. As space is limited it is advisable where immediate reply is necessary that a stamped and addressed envelope be enclosed with the question, when the answer will be mailed direct.



**F. W. K.:** Please tell me how to get rid of sand burrs.

**Answer:** Sand burrs or cockleburrs are about growing annual weeds that become quite troublesome if allowed to gain headway, besides being unwholesome and wasteful of moisture and fertility; they bear seeds that may seriously affect livestock. Putting the ground into cultivated crops and keeping the crops clear of weeds, especially the burrs, is a practical measure for eradication. At all events prevent the weeds from bearing seeds by keeping them cut off. If the burrs have become established in meadow or pasture they may be eradicated early in spring by spraying with sulphate of iron, 2 lbs. to the gallon of water.

**J. G.:** I have a piece of mulch land which I broke up last year and raised a crop of cabbage on. It is fairly well drained but not tilled. Would like to know if this would raise mangels.

**J. G.:** Your land should raise a fair crop of mangels in a moderately dry season. The mangel is susceptible to injury from frost, more so than cabbage, and low lands suffer from late and early frosts, hence, if you have any choice, I would say to put your mangel crop on higher land. Mangels require a fair to large supply of potash. Much land is notably short of this plant food, hence in fertilizing for your mangel crop I would advise using from 500 to 700 lbs. per acre of a fertilizer carrying 8 to 10 per cent phosphoric acid and 5 to 7 per cent potash. Work it well into the soil before sowing the mangels.

**R. F.:** Can you give me full directions about starting an asparagus bed? The soil is sandy but has been fairly well manured. The plot has an open sunny exposure. How many plants are needed to supply a family of six?

**Answer:** To start an asparagus bed, the ground should be deeply plowed or dug. Strike out furrows or trenches 3 to 4 feet apart. If you can get it, throw in a couple of inches of well rotted stable manure. Set your asparagus roots 2 feet apart and pull in soil till they are fairly well covered. The covering soil should be tramped down fairly firmly. When growth has begun more soil can be drawn over the rows so that the roots will be well buried, but not too early. When the bed is established, apply a heavy dressing of high analysis fertilizer along the rows, and work it in by light cultivation. Such analysis as 4-6-10 or 5-8-7 or 4-8-6 can well be used, applied at the rate of 750 to 1,000 lbs. per acre. A plot 12x18 feet should give you a good supply of asparagus when well established.

**J. J.:** What is the best commercial fertilizer for use on a strawberry patch?

**Answer:** Practical strawberry growers get good results from high grade fertilizers. For sandy soils such analysis 4-8-6, 5-6-6 and 4-6-10 are used. For medium loam soils and clayey soils such analysis as 5-12-0 and 4-10-0 are useful. For mucky 0-10-8 or 0-8-8 and the like are used with good profit. Applications of 500 to 1,000 lbs. per acre are made soon after fruiting season is completed.

**N. P.:** If rye and vetch are sown in August for green manure and plowed under in spring, is the vetch hard to get rid of, and will it spread?

**Answer:** There should be no trouble with vetch when plowed in spring, provided that you do not leave the plowing till the vetch has flowered and set seed. This is its only method of propagation, hence you are perfectly safe in growing rye and vetch as green manure if you practice fairly early plowing.

**meat.** After seasoning, this was rolled up and tied so the vegetables would not fall out. When the meat was dredged in flour, it was placed in the range oven. The recipe directed that the roll be cooked thirty minutes.

"I forgot about this main dish and went ahead with the coffee, the dessert, and the rest of the meal. My husband and his two helpers came to the house for dinner just as the thirty minutes were up, so I took the roll from the oven. The vegetables were almost raw and the meat was only partly cooked. It couldn't be eaten. To cover my humiliation, I opened some canned beans and other stand-bys. Now I know that the writer of the recipe had city readers in mind who use hot city ovens. She wasn't considering my coal range, and I didn't have sufficient experience to judge for myself."

Evidently peppers have been responsible for several mishaps. An Irishman says that his first vegetable soup was so hot that a spoonful was more than he wanted; his wife had left the seeds in the peppers and the concoction was quite too hot to be eaten.

Another farm woman admits that she made eight quarts of pickles, using whole red peppers; the seeds produced such burning effects that the pickles had to be thrown away.

Now for another sling at the husbands. A woman laughed as she told me how her husband "kept the home fires burning." Being a recent bride, she wouldn't tell anything on herself. She will ten years from now.

The bride was driving to town one morning and her husband was staying at home. Explaining that a ham was baking in the oven, she asked him to watch the fire in the kitchen range. When she returned two hours later, the ham was almost a cinder. The man's effort to keep the range red-hot. He never thought of looking at the ham. This husband bought his wife a fireless cooker soon after that.

Last, but not least, my own great difficulty. My husband asks why I limit it to one. Anyway, here it is: I couldn't make coffee to suit his taste.

tip of my tongue, a new question about it. And after experimenting a few months, I discovered that all the trouble came from the brand of coffee—it wasn't the one to which my husband was accustomed. But since this same man drank army coffee overseas during the war, he does not tease me about my first sad attempt.

## Fly Sprays.

The Wisconsin College of Agriculture recommends the following two fly sprays: Two gallons kerosene, 1 quart pine tar and one-half pint crude carbolic acid. The addition of 1 quart of fish oil will improve this mixture. Another fly spray consists of 1 gallon of kerosene, 5 ounces powdered Naphthalene and 1 pound of laundry soap dissolved in hot water. Sufficient water is added to this to make 4 gallons of mixture. It may be applied with a sponge or cloth.

## Sheep Notes

While sheep are susceptible to disease, perhaps none have caused greater loss to flock owners than the stomach worm. Allowing the flock to pasture continuously on the same pasture in the case of this trouble. When a pasture once becomes infected with the stomach worm it is difficult to eradicate, therefore, preventive measures are most effectual. Frequent change of pasture is necessary to keep the flock in a healthy, vigorous condition. Overstocking a pasture should be avoided. Low land pasture, especially where foul and stagnant water stands, are more likely to be infected with stomach worms. Sheep show the first symptoms of stomach worm infection by their loss of flesh and run-down condition. A disposition to eat coarse indigestible food, a depraved appetite are common symptoms of the disease. There are a number of effectual treatments for this disease, but far better to avoid the trouble than to attempt to cure it. Keep both ewes and lambs in good flesh by supplementing the pasture with a light grain ration. Alternate the flock from one pasture to another frequently, even though the feed is of about the same quality.

The man who arrives is the man who seeks after ideals. Love is the great unifying force in all worth-while social movements.

# SMOKE OLD CHUM

The Tobacco of Quality

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## Birds Who Live in Holes

By Ida Belmer Camp

The woodpecker is the woods architect—he is responsible for nearly every cavity home in the forest. There are more than forty varieties of woodpeckers but only four different sizes. After having dug and chipped out the cavity in a rotted stump or tree, they use it one season as a home and nursery to rear their young and never use the same again. There are numbers of other cavity nesting birds corresponding to the four sizes of woodpeckers that are only too glad to occupy the discarded homes of the woodpeckers. We will classify them, as to size, as A, B, C and D.

**A.**—Wrens, titmice, chickadees, nuthatches, towhees.  
**B.**—Bluebirds, prothonotary, warblers, swallows.  
**C.**—Fly catchers, martins.  
**D.**—Owls, sparrow hawks, flickers.

All of these, while occupying the hole the architect-carver has dug out for them, are not builders but cavity dwellers. They readily can be induced to come and live in your orchard or garden if you will supply the cavity for them to live in and rear their young; all you have to do is to imitate nature as nearly as possible. There should be plenty of water at hand.

An easy way to furnish a cavity home, is to find a foot length of a rotted tree limb, dig out the centre about four inches deep and six inches wide, nail a bit of board on the top for a roof and tie the whole in a tree. The entrance hole should be the size of a quarter. You will be surprised to see how quickly Mr. and Mrs. Wren will go to housekeeping there, sometimes as late as August for their third batch of young.

Fruit trees where these houses are placed will have no wormy fruit if these nests are hung in the spring.

The conditions to be closely imitated are moisture and atmosphere and these can be supplied by two or three old stumps or a piece of decayed wood. The eggs must not be dried out; if they are, the young are liable to die in trying to shed the shell.

A house that swings from a limb or other place will never be infested by the English Sparrow. The cavity dwellers are every one insectivorous and are among our nation's most valuable assets. Destroy these and in a comparatively few years the insects will have multiplied to such an extent that all trees will be denuded of their foliage, plants will cease to thrive and crops can not be raised. For instance, a chickadee will average two hundred trips a day to feed her young and come in loaded with twenty-five plant lice at a time. A flicker's crop, on dissection, was found to contain more than four thousand ants. Five hundred insects a day is a conservative estimate of the quantity consumed by each individual insectivorous bird, hence it is the duty of every citizen to do all in his or her power to protect these valuable creatures.

Worthily indeed is the garden that is planted not for beauty alone but also for the welfare of the birds. There is a strong affinity between flower lovers and bird lovers, and a garden planted with this twofold purpose in mind brings greater pleasure to him who gives and a goodly measure of comfort and enjoyment to those exquisite feathered creatures of the air—the birds.

I should advise making a special study of one bird during a season, noting each special peculiarity and learning everything you can about it. You will be astonished to know how much there is to "just a bird!"

**Producing Clean Milk.** Milk, when it is first drawn from healthy cows, is clean. If properly handled no material change will take place for a considerable length of time. When dirt gets into milk it furnishes a medium for bacterial growth that in a very short time causes it to become impure and unfit for human consumption. Milk deteriorates from contamination very rapidly during the hot summer months. Dairymen, therefore, should give special attention during the summer season to so handle their milk to insure cleanliness.

The larger portion of the milk produced on Ontario farms is put into cans and hauled to market. Every farmer has had his experience during the summer months with milk souring before it reaches the market. Sour milk is the farmer's loss and can be overcome by proper methods of handling on the farm.

Clean stables, clean cows, clean milking, clean pails, clean straining, clean cans and proper facilities for cooling the milk as soon as drawn are a few of the essentials in producing clean milk for the market and home consumption. Neglect of any one of the above requisites invite loss and human disease.

## GARDEN NOTES

Weeding should be done on a hot, sunny day, so that the weeds are quickly withered by the heat and have no chance to take new root on the surface of the stirred soil. Even so, some are likely to survive if there is a great deal of moisture.

Transplanting and thinning are the least harmful when the work is done on a wet or cloudy day, or toward nightfall, because there is less heat from the sun and therefore less withering to the plants.

Nine times out of ten the orderly, good-looking garden is the highly productive garden; whereas the poorly arranged, shabby planted plot is sufficient for little more than the abode of field mice. Nature is nothing if not responsive. Give her what she requires and you will never be disappointed.

If there is danger from cutworms, and these pests can devastate a patch of plants like tomatoes in a single night, safeguard the tender stems by surrounding them with a cylinder of heavy paper, inserting the paper in the ground for an inch and making it extend above the ground about two inches.

Sprays and dusting are not effective against cutworms, grasshoppers, army worms and the like, because these pests do not dwell on the foliage. They must be fought in a different manner, on the ground near the base of the plants. Poison bran mash is widely used in this operation. Add a teaspoonful of Paris green to a quart of ordinary feed bran and mix well. Put a tablespoonful of molasses in a cup of water, then work this liquor into the bran mixture; add enough water to make a stiff mash.

A teaspoonful, or less, of this mash scattered near the stem of the young plant will give the desired protection. Kerosene emulsion is one of the oldest sprays for scale insects and plant lice and is easily made at home. Take a piece of laundry soap about the size of a walnut and shave it in a cup of soft water; boil it for a few minutes; while hot add two cupfuls of kerosene; agitate the mixture violently, until the oil is perfectly emulsified, when it will have a creamy look, and not separate from the water.

This is a stock solution. For use as a dormant spray against scale insects on trees and bushes, before the foliage has appeared, it should be diluted at the rate of one part emulsion to three or four parts water. For spraying the foliage of plants a weaker mixture is needed; dilute at the rate of one part stock emulsion to ten or fifteen parts water. Agitate the solution frequently while applying it to keep it well mixed, otherwise concentrated portions of the liquid may burn the foliage.

Crude carbolic acid emulsion, for use against root maggots, is made in virtually the same way as the kerosene emulsion, except that a teaspoonful of crude carbolic acid is substituted for the two cupfuls of kerosene. This stock solution should be mixed with one gallon of water.

Arsenate of lead, lime and sulphur, nicotine solutions, tobacco dust, Bordeaux mixture, fish oil and other scup solutions, pyrethrum, hellebore and calcium arsenate are other well-known weapons with which to combat the garden enemies.

Prepare for these plant enemies. They are sure to put in an appearance, usually when you least expect them. Frequent, shallow cultivation is best in dry weather, much better than the delayed, deep cultivation. By keeping the surface of the soil well stirred a "dust mulch" is formed, and while this layer of finely pulverized soil is quite dry in itself, it prevents the escape of moisture from the deeper parts of the soil. In this case the pulverized soil acts as an insulator or non-conductor between the moist soil and the heat of the sun.

A crust forming over the soil after a rain or watering is detrimental to plant growth and should be broken up as soon as the land can be worked. Sandy soils, of course, can be worked much sooner than clay soils after a rain.

## June Brides and Cookstoves I Have Known

By Nell B. Nichols

Do you remember the mistakes you made in cooking when you were a bride? You never thought the day would come when you could laugh at them, did you? I've been talking about housewives recently, asking about their first culinary Waterloo. These women have been willing—their husbands eager—to tell of the trials and tears. Several of them, believing in good measure, have told amusing incidents about their husbands' first, and in many cases last, attempts in the kitchen.

Perhaps the most common error is that of cooking too much rice. As one woman puts it: "I learned by experience that one cupful of rice when cooked measures four cupfuls; every pan and kettle I owned was filled the first time I cooked it. I fed it to my husband for a week, and he ate it cheerfully. He says everything tasted good to him then."

Another housekeeper related a similar experience with barley. She started out to make soup. When her husband came in at noon she was searching for one more dish to hold the swollen grains of barley.

Doughnuts have caused trouble, too. One capable housekeeper astonished me by saying: "I remember how happy I was when the large, shining pan was filled with doughnuts, brown and sugary. I wished my husband would come from the woods, where he was cutting wood, that he might taste them."

"My wish came true. The door opened, and in he came for a drink of milk and, of course, for a doughnut. He seized one and took a bite. Imagine how I felt when dough peeped out from within the browned surface! We both laughed, but I didn't feel very cheerful. I resolved to show my husband that I could fry doughnuts. A week later I made the second attempt.

My husband sometimes joked about it, but I found it tragic. Finally I found that my mistake was that of not having the oven hot enough when the pie was put in, and, as there was not sufficient heat to set the crust, the custard soaked into it."

Pie meringue was responsible for much embarrassment. A young bride, wishing to show her husband's parents how clever she was in cooking, invited them to dinner. She worked during the morning, preparing quite a feast. Two coconut custard pies were her chief pride. They were beautiful, with their fluffy, browned topping of egg whites.

All moved along beautifully until it was time to cut the pies. The meringue pulled into various shapes, but it wouldn't let itself be cut. In kindliness the mother-in-law explained that unless sugar is added to the beaten egg white the meringue becomes leathery and tough, and cannot be cut after being baked.

It's a husband's turn now. Here's the tale one woman tells: "I made equal the one made by my better half. Soon after our marriage one of my neighbors took sick early in the morning, and her son came over to get me to help care for her. Before starting, since I couldn't get home to get breakfast, I told my husband that he could make the coffee and bake some buckwheat cakes for himself and my uncle, who was visiting us. I emphasized that the batter for the cakes was on the kitchen table.

"Returning home later, I found my husband wearing a grouchy expression. 'We are hungry,' he said. 'I couldn't bake those cakes. They wouldn't turn.' "I couldn't imagine what was the matter until I went to the kitchen and discovered that the buckwheat batter on the table was untouched and the jar of bread sponge in the cabinet had been taken out and tried on the griddle. Imagine baking bread sponge! And eating it!"

## The Sunday School Lesson

JULY 2

**Ezekiel, the Watchman of Israel, Ezek. 2: 1-16; 3: 17-21.**  
**Golden Text—Seek ye the Lord while He may be found, call ye upon Him while He is near: let the wicked forsake his way, and the unrighteous man his thoughts: and let him return unto the Lord, and He will have mercy upon him; and to our God, for He will abundantly pardon.—Isa. 55: 6, 7.**

**Lesson Foreword—Ezekiel, who was of a priestly family, was carried into exile to Babylon with the first captivity in B.C. 597. His prophetic ministry in Babylon and he did much to help them bear the sorrows of exile and to keep in remembrance the religion of their fathers when surrounded with a great pagan religion and civilization. His style is precise and somewhat formal; his prophecies are filled with all manner of strange symbols and sometimes weird and sometimes truly sublime.**

**I. Ezekiel's Call, ch. 2: 1-16.**  
**V. 1. He said; That is, God. In the preceding chapter, Ezekiel tells of his inaugural vision of God. At this vision Ezekiel fell prostrate and now the silence is broken: God speaks. A man. Ezekiel uses this expression about a hundred times, applying it to himself. It denotes his sense of human frailty and nothingness in contrast to the ineffable majesty of God. Stand upon thy feet. This command was given because God wished to announce to him that by his prophetic commission he was to be elevated to a position of dignity and brought into his fellow exiles.**

**V. 2. The spirit entered into me. Unable to raise himself, the Spirit of God came upon him and lifted him bodily upon his feet. The spirit of God is conceived throughout the Old Testament, as filling men with unique powers. Ezekiel has many experiences with the divine Spirit. It sometimes came upon him violently and transported him in vision to the land of Israel; at other times it filled him with great rapture.**

**V. 3. He is commissioned to declare the message of God to his people. The children of Israel; are now described that the prophet may be under no illusions regarding them. They are the rebellious children of rebellious fathers.**

**V. 4. Impudent children and stiff-hearted; literally "hard-faced and stubborn-hearted." They have a disposition towards disobedience and perversity which renders them hard to reason with. Thus saith the Lord, He that speaks authoritatively as the prophet of God.**

**II. The Watchman of Souls, ch. 3: 17-21.**  
**V. 17. A more precise description of the prophet's work is now given. He is set as a watchman or sentinel and is charged with "the cure of souls." Watchman. It is worth noting that Ezekiel's work is not with crowds, but with individuals.**

**V. 18. He is to go out after the wicked and admonish them. If he does not warn a wicked man and the wicked held accountable. "He that fails to save life kills" (Davidson).**

**V. 19. If thou warned the wicked, in this case the prophet had to discharge his duty and even though the wicked continue in sin, no blame can be attached to the watchman.**

**V. 20. When a righteous man doth wicked, or to be warned and warned, for the righteous may eventually fall from the way. I lay a stumbling block; something over which the righteous may fall and perish. God tempt even the righteous to sin. He shall die. Ezekiel's doctrine is that even though a man live a righteous life but sin at the last, his righteous life counts for nothing and he dies as a sinner.**

**Application.**  
"Watchman, what of the night." Every one is saying, these are strange new times—and it is true. And "new occasions teach new duties." There is always a "present crisis." Loftis, in his recent vivid book on Ezekiel, is worth quoting here: "There has never been a time when, by a careful observation, a change could not be seen passing over the spirit of the world—Empire in the fifth century of the Roman Empire in the fifth century of the rise of the new conception of European unity under Charlemagne, and the fall of Constantinople, and the discovery of the new world at the close of the Middle Ages. Every generation is pregnant with possibilities of blessing or disaster. Ideals are always at stake. But for our own age this might be said, the state was never so great, or so widely realized. Nothing seems too good to be hoped for, nothing too evil to be feared."

**III. The Watchman of Souls, ch. 3: 17-21.**  
**V. 21. The spirit entered into me. Unable to raise himself, the Spirit of God came upon him and lifted him bodily upon his feet. The spirit of God is conceived throughout the Old Testament, as filling men with unique powers. Ezekiel has many experiences with the divine Spirit. It sometimes came upon him violently and transported him in vision to the land of Israel; at other times it filled him with great rapture.**

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**V. 5. Whether they fear. He is to continue to admonish them whether they will hear him or not. There hath been a prophet among them. Eventually they will realize that the one whom God sends is really a prophet.**

**V. 6. Ezekiel is not to be daunted by the opposition of the people. They may persecute him in word and deed, but he must not be discouraged. Briars and thorns; "symbols of the opposi-**