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.

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B. A. H.: After plowing under a green manure crop, how long should I wait before planting a crop on the land?

Answer: In plowing under a green manure crop be very careful to work it thoroughly by disking and harrowing, otherwise there is danger of forming a loose mat which will interrupt the rise of moisture in the soil. If green crop is plowed in early in spring you should be able to plant a crop from two to three weeks after plowing.

Mrs. W. S.: Can bread be made of winter wheat, and if not what use is it? We have a large supply on hand and are unable to make good bread of it.

Answer: Winter wheat is always weak, that is, the gluten in it is of such a nature that it will not stand sufficient expansion so that the bread will rise. That is why you do not get good bread from winter wheat flour. If you will get about one-third to one-half spring wheat of good hard type and have it mixed by the miller in grinding, it will make a flour that will rise satisfactorily. Ontario produces a large amount of winter wheat and this is blended with spring wheat in the making of much of the flour that is used in this province.

C. L.: I would like to know what you would advise a man who has not had any farm experience to do. My wife and I would like to go on a farm. Would it help to join a Club where I would meet other farmers? Would you advise me to buy or rent first? I would like to go on a small farm where I could raise chickens and fruit.

Answer: I would advise your joining the club in question, also advise you to attend any Short Courses which are held within reach. Probably the best thing you could do is to hire out to a fruit and poultry man and spend about a year or so with him. This would give you practical experience which you could not get from any study course. At the same time subscribe for a good magazine and watch the papers closely.

A. P.: I have a span of horses, and when I turn them loose they always go off some place and begin licking earth. What is lacking in their food, or what ails them? What is good for worms in horses?

Answer: In all probability the trouble in the horse feed is that it does not contain sufficient phosphoric acid and lime. This fault is frequently the case in southwestern Ontario. The cure is, before planting your grain, to lime the field at the rate of about one to two tons of ground limestone per acre, and when sowing the grain apply 200 to 300 lbs. of fertilizer high in phosphoric acid. Lime and phosphoric acid are the materials which together form bone. This is what the animals crave.

For treatment of horses to control worms, you had better consult a veterinarian, who would prepare powders.

Sheep Notes

Three things contribute to a high percentage of twin lambs, according to tests conducted by Government experts. These three things are: Flushing the ewes at breeding time, early mating, and good gains during the breeding season. The ram has little influence on the number of twin lambs produced.

Flushing, which means extra feeding of ewes at breeding time, resulted in an average increase of 18.1 per cent. in number of lambs dropped. Ewes getting in lamb first, dropped a higher percentage of twins than ewes getting in lamb later. To obtain the highest percentage of twins, ewes should gain at least seven pounds a head during the breeding season, the tests indicated.

The tests did not bear out the supposition that the proportion of twin lambs can be increased by selecting as breeders rams and ewes born as twins. Selection should be made on the basis of average yields of different strains, instead; not on the basis of individuals.

Butchering Recipes.

To prevent molding, all stuffed sausages that are to be kept for weeks or months, should be dipped in melted paraffin. This also keeps them from getting too dry.

Sausage in brine: Stuffed sausages may be kept for several months if placed in a mild brine for four or five days (seven parts saturated brine and three parts water). Rinse and smoke for from six to eight hours. Hang in a dry airy place.

Country sausage recipe: Use eighty-five pounds lean pork, fifteen of beef, from one and one-half to two pounds of salt, four ounces of black pepper, one ounce of sweet marjoram. Cut the meat into small pieces and sprinkle seasoning over it, then grind finely. Put away in a cool place for from twenty-four to thirty-six hours, then add a little water, stuff into cleaned hog casings and smoke in a very cool smoke until a dark mahogany color is obtained.

To make bologna ham, take sixty pounds of lean beef chopped fine with four pounds of salt and one-half pound of saltpetre. Allow the mixture to stand twenty-four hours in a cool place. Add thirty pounds of fresh lean pork and ten pounds of fat pork, four ounces black pepper, three ounces mace, five pounds cereal, and ten pounds water. Mix thoroughly and grind so that the pork will be only of medium fineness. Stuff into cloth or beef casings. Smoke to a nice red color. Cook one-half hour, then immerse in cold water for five minutes and hang up.

Summer sausage: Use twenty-five pounds of cured beef, free from sinews; fifteen pounds of pork trimmings; from four to six ounces of white pepper; one ounce of whole black pepper; one ounce of whole mustard-seed. This recipe can be made up in cold weather only. All the meat is put through a grinder and spices are added. (No salt is needed, for the beef is salty enough). Mix all thoroughly, until evenly seasoned. Spread it out in a cool place and leave for forty hours, then stuff into clean hog casings, and let hang over night. Smoke with cold smoke for several days. If kept in a dry place, this can be kept all year. If mold appears on casings, wipe off with a cloth before using.

Frankfurters: Use about one-third lean beef trimmings and two-thirds pork. The pork should be about one-half fat, and trimmings from the cured hams and bacon may be used. For 100 pounds, the following seasonings are recommended, but may be varied to suit the consumer: white pepper, four ounces; red pepper, one ounce; mace, two ounces; sugar, four ounces; saltpetre, three ounces; salt, two and one-half pouns. Five pounds of flour and twenty pounds of water are added. The mass is thoroughly mixed, ground fine, and stuffed into small casings. It is customary to make the links about four inches long. Press the casing together and twist once around. Alternate the direction of the twist and the sausages will stay linked. Smoke about four hours and then cook for about ten minutes in water between 170 and 175 degrees. In stuffing, care must be taken not to stuff the casings too tight or they will burst while cooking. If onion is desired, one-fourth pound to each 100 pounds of meat will impart an onion flavor and will not be sufficient to be objectionable. Frankfurters prepared by this recipe may be preserved in brine if it is desired to keep them for a month or two. To six parts of saturated brine add four parts of water. Pack the frankfurters in the brine and weight down to keep them covered.

Poultry

Turnips, either raw or cooked, make an excellent addition to the ration. They should not be fed more often than twice a week. Give only as many turnips as the birds will clean up between noon and night. Fed in this way there will be no turnip taste to the eggs.

Frozen feet have never bothered in my hen coop, and the weather here flirts with zero and below all through the winter. I use roosts at least four inches in diameter, made from limbs of trees. When the fowl roosts for the night and settles herself down, her whole foot and toes are covered by her feathers.

A rooster is any animal that roosts. Almost all birds are roosters. What sense or delicacy, then, is there in calling the cock of the domestic fowl a rooster, as many people do? The cock is no more a rooster than the hen; and domestic fowls are no more roosters than canary birds or peacocks. Out of this nonsense, however, people must be laughed rather than reasoned.

Geese, under faverable conditions, are the easiest of all domestic fowls to handle. If there is good pasture provided with water the geese may be left to themselves half or more of each year. They do better, ganerally, if given a little grain food along with what they get by foraging, but this is not necessary, and perhaps most people who raise geese give the old stock nothing during the pasture season, and feed the goslings only a few weeks.

Making Over Houses

BY ETHEL MIDDLETON.

In this period of applied thrift, the making over of houses promises to be as popular as the making over of dresses. What if it is not practical to build just now? That is no reason for giving up plans for a more comfortable and attractive home, in which the work can be more easily accomplished. Some women find it as interesting to make over a house as to start with entirely new plans.

Visitors to farming districts are apt to consider the farm wives overconservative, clinging to the old-fashioned home while their husbands build modern barns and outbuildings. One answer to this criticism is that farm wives are as deeply interested in the proper equipment of barns and outbuildings as are the men, for these buildings form the factories of their joint industry. But housewives must also remember that the entire social life of the family clusters around the home. If we are to keep boys and girls satisfied on the farm—and that is evidently what the whole country is begging the farmer to do—the home must be made modern and attractive.

It is all very well to say that the home that was good enough for father and mother is good enough for the young people. But the standard of comfortable country living is changing. For one thing we have the "movies" with which to reckon. They bring to the children modern ideas of what a house should be, and show them what the latest ideas are about interior decorating, comfort and entertainment. The children naturally look for some of these things at home. Moreover, we, ourselves, want better things for our sons and daughters than custom considered necessary in our days. Improvements to make home life pleasanter and home work easier are not unattainable.

If you were building a new house what would you include in it that is not in the old house? Is it not possible to add some of these things?

First of all what about your kitchen? Do you need another window above the sink, or one which will provide more daylight over the range? Are your cellar stairs in good condition, and well painted so they will not need scrubbing? Have you a good built-in dresser or kitchen cabinet? Is the work-table conveniently placed?

Is the sink equipped with a drainboard? Ash or maple is the best wood for the purpose, and the board should b eheavy, well cleated on the under side and well grooved on the upper. It should be made water-resistant by being finished with a wood filler, and then rubbed down with linseed-oil.

Is there a way of arranging a lighted pantry between the kitchen and dining-room for dishes, and a ventilated pantry for cooking and table supplies? Is there a porch at your kitchen door, and have you a wash-room annex? These are all simple conveniences to facilitate the routine work of this part of the house. In many cases, when they are lacking, they can be added without great expense or labor.

Windows were often skimped in the early building. We have since learned that sunlight and ventilation are vitally necessary to the well-being of any family. To my mind there is nothing so important in a house as properly placed windows, unless perhaps it is properly built closets. And the two really go together, for whenever possible closets should have windows both for light and ventilation.

Have you considered that adding daylight to a house generally means adding living space? An extension window not only gives more space but increases the light in the room, and so gives more comfort to more people. A window cut through a dark corner in a hall will sometimes convert the passageway into an extra room. An additional window will make a bedroom cooler and more healthful at night and more enjoyable by day.

A down-stairs wash-room makes it possible to keep the bathroom tidy. A cloak closet off the hall, with a receptacle for family umbrellas and rubbers, means that outdoor things need not be deposited in the hall or in the living-room. On the second floor a closet which holds brooms and other cleaning utensils will save the housewife many a step. If there is not room on this floor for a linen closet, install at least a linen case and towel cabinet in the bathroom or in the hall.

Do you need more space? How are you going to make the house bigger? Without knowing the original plan, it is difficult to give specific directions, but here are several ideas for remodeling that have been successfully carried out.

Perhaps you have an attic, unlighted and so unattractive in outline that it has never seemed worth while to finish it. Add dormers with double windows to the roof; divide the interior with wall-board into several rooms and, if you can run water up there, install a shower-bath. In this way, you have additional bedrooms and perhaps a sewing-room. Or, if there are boys in the family, let them have this floor for their personal quarters.

There are times when a porch is more comfortable if it is not used as the entrance to the house. If practicable, leave the front entrance of your house as it is, and build a porch extension on the side of the house. A wide, two-storey porch will increase both living-room and bedroom space. You will probably want to screen the upper porch and use it for sleeping purposes.

A dining-room built as a wing often lends itself to a little extension that can be roofed and screened to serve as a breakfast porch in summer. A good many farmhouses have out-of-door kitchens. Why not out-of-door dining-rooms such as used to be customary when the families were large and much company was expected in the summer-time? With the business of cooking and the social function of eating both carried on out-of-doors, the house is easily kept cool and tidy and the housework reduced to a minimum.

Have you heard of the new breakfast rooms? A breakfast room consists of a small extension of the kitchen, having benches along the three walls and being big enough to hold a table of the refectory style—that is, a long and rather narrow table.

Suggestions for making over a house may range from window boxes and a new front door to a cement cellar, running water, a bathroom and a furnace. They are only useful if adapted to your needs. The important thing to remember is that the good old house may have big possibilities in it waiting to be developed, and that this development is not necessarily expensive or difficult when compared with the resulting advantages.

Put down what you think you are! Subtract what you really are! The remainder is the cause of most of your unhappiness.

Tiles laid above the water-table might better be back at the factory. They'll never discharge water unless placed down where the water stops and hunts a way out.

Protect the Winter Birds

During the stormy months of January, February and March the brave birds who remain to do service for you, perish when the ground and trees are snow and ice covered. Obeying the instincts of nature they remain to do their duty, even at the cost of their little lives. It is no uncommon occurrence after a severe storm to go about the countryside and see many lifeless bodies of these feathered friends lying about on the ground, or buried beneath the snow. We should not permit this to be the case, but provide some shelter for them, as well as food. As long as their bodies are kept warm with food they can combat old man winter's cold blasts quite well. They need plenty of bird houses and other places to crawl into, away from the raging winds and snow.

None of us are so poor in material things that we cannot spare the trimmings of meat, raw or cooked meat bones, as well as suet for the birds. Either mutton or beef suet will provide heat and nourishment, and sunflower seed heads, which are about nearly every farm, are relished by nearly every winter bird. The writer also brings in the apples which cling to the branches in the fall, thaws them out, and places them with the other food in the feeding shelf. The birds fairly scream with delight for the dessert which the apples apparently are. Can we deny these bird friends so little?

When these winter birds remain to search out the eggs of insects, and the dormant forms of insect life from the crevices of bark, so that they will not have a chance to hatch out in the spring, we should certainly respond by placing out the simple food that they require to save their lives. Cracked corn and oats can be placed in a sheltered spot. Short boards stood up on ends, tepee fashion, and then covered with cornstalks make a very good feeding station for the ground-feeding species.

The winter birds may come to your farm and pick up the weed seeds which the summer birds had to leave. They often join the barnyard fowl at feeding time, and also come to your doorstep for the crumbs and other food you may throw out. All of the winter birds are sociable and friendly, and pleasant company for gray winter days. They will appreciate a raw meat bone to pick at, as well as suet, and acorns that the children of the house may have picked up and stored away.

The downy woodpecker, the guardian of your orchard, does enough good work in wiping out the codling moth, to warrant any grower putting up a monument for it. Your appreciation can be shown by giving it suet and other foods for stormy days, as well as bird houses or other shelter, if there are no natural tree cavities in your orchard. I doubt very much whether you would need to undertake the very unpleasant and expensive spraying for destructive insects in the spring, if you have enough downies and other winter birds in your orchard.

The downy woodpecker and other winter birds are synonymous with wormless apples. Are we going to see that our winter bird life does not perish? Let us prove ourselves friends to them by helping them with food and shelter during these lean months.

The Sunday School Lesson

JANUARY 28.

Elijah in Naboth's Vineyard, 1 Kings 21: 7-10, 16-20.
Golden Text—Num. 32: 23. (Rev. Ver.)

Time—The reign of Ahab, B.C. 876-854.

Place—Jezreel in the plain of Esdraelon.

Connecting Links—At the command of God, Elijah returned from Horeb to the land of Israel (ch. 19: 15) and there he found that Ahab had perpetrated a great injustice on one of his humble subjects. Adjoining Ahab's summer palace in Jezreel was a vineyard belonging to Naboth. Ahab was anxious to secure this vineyard that it might round off his own property. Among the Israelites, however, there was a limit to the free disposal of property especially if it were a patrimony. See Num. 36: 7. An inheritance on which one's forefathers had lived and been buried for generations was regarded as sacred and inalienable. So when Ahab proposed the purchase of the vineyard, Naboth answered "The Lord forbid."

I. A Wicked Plan, 7-10.

V. 7. **Dost thou now govern?** "Are you such a weakling that one of your subjects can foil your desires?" Jezebel, coming from a foreign principality,—Tyre—not understanding the sturdy independence of the Israelites, believed in a despotism which did not consider the subject's rights. **Arise and eat bread.** His covetousnous being denied its satisfaction, he had gone to bed like a spoiled child and refused to eat. See v. 4. **I will give thee,** etc. Evil is resourceful. All through his career Ahab appears to have been a weak man, completely under the domination of his queen, who was a sort of Lady Macbeth.

V. 8. Jezebel took the matter in her own hands and **wrote letters,** probably from Samaria, the capital, rather than from Jezreel. **Sealed . . his seal.** The seal was a ring with a precious stone on which was engraved a figure or inscription. Documents of state were stamped with the king's seal to attest that they were official. In the New Testament (Eph. 1: 13) the believer is said to be sealed with the Holy Spirit as a mark that it belongs to God. **The elders and . . . nobles.** In all likelihood these are convertible terms denoting the sheikhs of the village. As heads of the leading families they were the magistrates who administered justice. That Jezebel appealed to them shows that a man had to be tried in a local court before his fellow-citizens, rather than in the king's court in Samaria.

V. 9. **Proclaim a fast.** A fast was a religious usage, a spontaneous expression of grief or self-abasement, and as such frequently a mark of repentance for wrong-doing. See Jonah 3: 5-9. Jezebel proposed that the Jezreelites should assume a mimic solemnity and mourn over the wrong done by one of their number, Naboth. Thus she degraded a religious custom to an evil purpose. **Set Naboth on high;** not in the seat of honor, but in the prisoner's box to make his shame conspicuous.

V. 10. **Two men.** According to Jewish law there had to be two witnesses of a crime before a man could be condemned to capital punishment. See Deut. 17: 6 and, 19: 15. **Sons of Belial;** a Hebrew slang phrase denoting "good-for-nothing fellows" or "worthless scoundrels" and hence "with no character to lose and easily bribed for any evil purpose." **Thou didst . . . the king;** denounced both divine and royal authority and hence acted as an outlaw. **Carry him out.** The Hebrew court of justice was usually held in the open square by the gate of the city; a condemned man was led thence outside the city limits for execution and burial. **Stone him;** the method prescribed by Jewish law for capital punishment.

II. A Well Merited Rebuke, 16-20.

V. 16. **When Ahab heard.** He and Jezebel were in Samaria when the murder took place in Jezreel; there was something despicable and cowardly in allowing others to work out his evil desire. Ahab rose up, etc. With Naboth out of the way there was nothing to hinder him from satisfying his covetousness. But, as Conrad remarks in his "Lord Jim," "You must touch your reward with clean hands, lest it turn to dead leaves, to thorns in your grasp."

Vs. 17, 18. **The word of the Lord.** Contrast this with the letters of Jezebel. After all it is this word of the Lord that makes it safe to live in the world. **Meet Ahab king of Israel.** Think of the courage Elijah must have had to rebuke a king and snatch his coveted prize out of his hands. Elijah embodied the power of righteousness. **He is in the vineyard.** Consider how dramatic the meeting was to be. It was to take place on the very ground that was stained by Ahab's crime. Ahab went out to take possession of a garden of herbs, and there he stands face to face with righteousness, face to face with honor, face to face with judgment." (Joseph Parker).

V. 19. **Hast thou killed?** Ahab may have been comforting himself with the thought that he at least had not murdered Naboth but this pointed question reminded him that he was ultimately responsible for it since he had sanctioned it. **Taken possession?** If Ahab had disapproved of Naboth's murder he might have shown it by refusing to take the vineyard. **Where dogs licked the blood.** In eastern cities the dogs are public scavengers and are here pictured as licking up the pools of blood which had oozed out of the murdered Naboth. This loathsome fate was also awaiting Ahab.

V. 20. **Hast thou . . . mine enemy?** In chs. 17 and 18. Elijah appears as "the troubler of Israel," but here as the personal enemy of the king. He is the thorn in Ahab's side, nettling his guilty conscience. But he mistakes Elijah when he calls him an "enemy." Had he but known it, Elijah was his best friend. "The faithful rebuker, the merciful inflictor of pain, is the truest friend of the wrong-doer." Sin also makes us mistake the character of God, it fancies that he who loves us and watches over us is our enemy.

Ahab had thought that the day when he would take possession of the vineyard would be one of unmixed joy; instead, it became one of unrelieved doom. Elijah proceeds to announce his punishment; on account of their delinquencies, both he and Jezebel are to be cut off. Upon Ahab's show of repentance, the sentence is modified. He is allowed to live out his life, but the punishment is to be meted out to his son. The kingship of Israel is to pass out of his house and be given to another.

Application.

Ahab now appears before us in another role. We have seen him as the protector of the worship of Baal. He appears now as an ugly and repulsive illustration of the sin of covetousness. Covetousness seeketh her own, and her own only. Dryden said: "Had covetous men as the fable goes of Braireus, each of them one hundred hands, they would all of them be employed in grasping and gathering, and hardly one of them in giving or laying out." Jesus uttered one of His sternest warnings against the spirit of covetousness. "Beware of it," He said. We may covet another man's house, or position, or throne, or fame, or education, as well as his land. Covetousness grows by what it feeds on, just as one becomes more and more thirsty by drinking salt water. Ahab had plenty, but he set his heart on Naboth's vineyard, and that was his undoing. The doom which Elijah pronounced against Ahab was a terrible one. The dogs, declared the prophet, would lick the king's blood in the vineyard of Naboth. His family should come to untimely ends, and Jezebel his queen would perish miserably.

We should not press this doctrine of retribution too literally. The wicked do not always meet with suffering or even disgrace. Often they escape detection by their fellowmen, or prosper in spite of it. None the less the decay is within and the process of spiritual death is at work in the heart.

Bedtime Stories

The City of Not At All.

"To-morrow I'll do it," says Bennie;
"I will, bye and bye," says Seth;
"Not now—pretty soon," says Jennie;
"In a minute," says little Beth.
Oh, dear little people, remember
That true as the stars in the sky,
The little streets of To-morrow,
Pretty Soon, Bye and Bye,
Lead one and all,
As straight, they say,
As the King's highway,
To the city of Not At All.

Why Do Hogs Root?

Seeking an answer to that question, together with about 350 other swine breeders, I called on two groups of pigs at an Experiment Station one day. The pigs were part of those in the station feeding tests.

There were ten pigs altogether—just ordinary pigs—divided into two families of five each. Their adjoining lots were sown to blue-grass. One lot was tumbled and torn. There was scarcely a square foot of unturned turf. The other was smooth and practically untouched. But the difference extended further than to the lots themselves—it extended to the pigs. The "rooters" tipped the scales at an average weight of 109 pounds. They were a shifty, discontented looking bunch of porkers. The "non-rooters" weighed 171 pounds each.

I wasn't the only one who turned to Mr. Evvard, in charge of swine feeding, with a question. He answered in a word: "Protein." But let me give the history of these two groups of pigs. They were all started July 29 at an average weight of fifty pounds each. One lot was given shelled corn and salt, self-fed, with blue-grass forage. The second bunch got exactly the same ration, but with the addition of tankage, self-fed.

The result was apparent in the condition of the lots and of the pigs. The ration of the "non-rooters" had been balanced; the protein that they required had been supplied in the tankage. Content and happy they had been busy putting on flesh. The others, denied a necessary element in their feed, had rooted all over the lot for worms in an unsuccessful effort to balance their own ration.

Mr. Evvard believes that just here lies the secret of keeping hogs from rooting. He used tankage in this case to supply the protein, but any other high-protein feed would show the same results.

The Way I Feed Mares in Foal

I feed good hay, free from clover and weeds, and mix one bushel of whole corn to two bushels of oats, and feed according to size of horse and work she is doing. I always keep her at work until two months before foaling, then I ease off on her and work her half a day, two or three times a week. During the last two weeks I turn her out during the day and put her up at night. I have never lost a mare or colt.—E. I.

Necessarily, the proportion of farmers will decrease. Not so many are needed relatively, for a man's power to produce has been multiplied.