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 an answer will be mailed direct.

R. F.:—Does it pay to use high grade fertilizers in an effort to keep down labor costs?

Answer:—It does pay to use high grade fertilizers in an effort to keep down labor costs. For instance, at the Ohio Experiment Station it was found necessary to expend 12 hours labor to grow an acre of wheat without fertilizer. On an average in 18 years this acre produced a little more than 11 bushels. With fertilizer it produced 24 bushels. If you increase the amount produced over 100 per cent. by fertilizer, it is obvious that you will reduce the number of hours necessary to raise one bushel or 1 pound of the crop, therefore fertilizing the crop to reduce labor costs is a practical method of meeting present labor conditions.

W. K.:—What are the duties of ammonia, phosphoric acid and potash? Where do plants get these from?

Answer:—Ammonia is the kind of plant food which causes stalk or foliage growth. Phosphoric acid invigorates root growth and hastens the ripening of the crop. Potash assists in the forming of starch in the plant, gives strength to the stalk and gives the crop power to resist disease. The ammonia of the plant food comes from nitrogen which has been supplied to the soil by manure, decaying matter or fertilizer. Phosphoric acid comes from the phosphoric acid supplied to the soil by manure or fertilizer or comes from the store of the three—lime phosphate, which has become broken down by weathering agencies at work in the soil. The potash comes from the potash supplied in manure or fertilizer or from that which has been let loose from the soil supplied by natural agencies at work in the soil.

Fooling the Fly.

Hundreds of thousands, if not millions of dollars worth of damage have been done in Ontario and other Middle Western wheat within the last twelve months. This damage has been the direct work of the minute Hessian Fly. This insect passes the winter in what is known as the flax seed stage. Early in spring—the end of March or early April—the adult females lay the eggs which hatch out into small, white, hungry maggots in about a week. These maggots eat their way down the stalk of the wheat plant and cause the dying off of many heads which should bear sound wheat. The maggots when they have attained their full growth change again into the seed-like stage early in August and emerge as flies again during this month or early in September. This brood of flies lays its eggs on early sown wheat and the same life history is gone through again.

Now, it is this second brood of flies that does the tremendous damage to the fall wheat crop, because eggs laid and hatched in August and September on early sown wheat provide maggots which attack the growing crop and cut its yield to a very large extent.

Plant your wheat late—say during the last half of September, or, if you are far enough South, until the middle of October. This, of course, will not give much growing season to the young wheat before the frosts of winter seal up the ground. However, if there has been a sufficient supply of fertilizer sown with the grain, it will speed up the growth of the wheat just the same as your feeding milk to the calf speeds up its growth. This is the big function of fertilizers in fall wheat growing. Do not forget the two essential points: Plant your wheat late and fertilize it well to avoid the injury of the Hessian Fly.

Roots and Rooting.

The quality of rooting that a crop develops has an immense bearing on the yield. This is especially true of fall wheat. Thousands of crops of wheat have been cut in half—yes, quartered, through poor attachment to the soil.

Holding the plant in the soil is by no means the only thing that roots do. Plant roots are the trunk lines and branches that bring up all the plant food (except carbon which the plant obtains from the air) from which the leaf, stalk and grain or other fruit is made.

Investigators tell us that there are four general causes for the death of wheat. These causes have to do with roots and plant. They are: heaving, smothering, drying out of the moisture of seed and plant, and the action of severe cold itself on plant structure.

With reference to the first two causes: You can do a great deal to avoid the killing out of your wheat by making sure that the plants develop a strong, far-spreading root-growth before winter sets in.

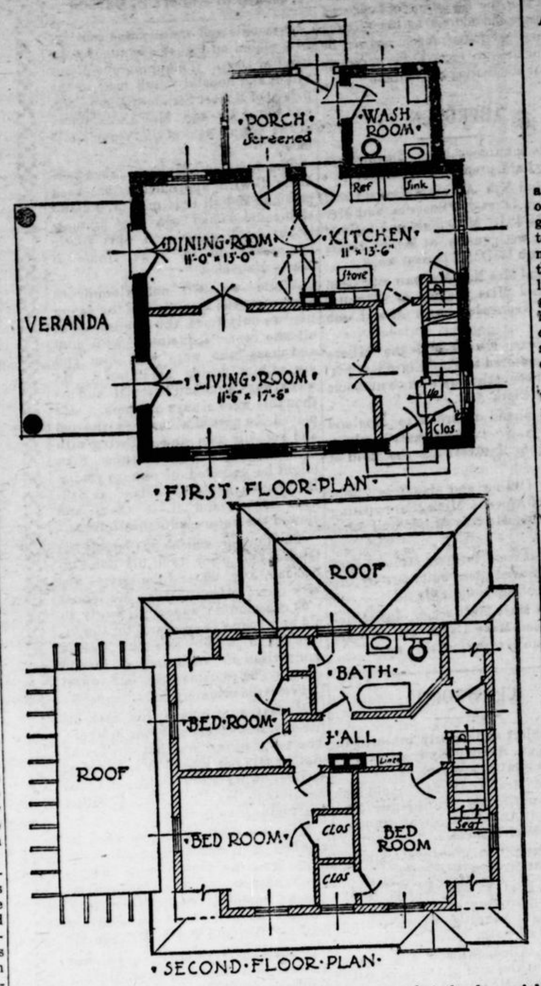
Botanists tell us that a well-developed plant may have as much as 500 feet of roots, that is, counting the measurements of the main roots and root hairs. This constitutes a tremendous feeding surface, and gives the plant to which it is attached an enormous advantage over poorly rooted crops.

One of the big advantages from fertilizing wheat is the development it gives to the roots of plants. By applying 200 to 300 lbs. to the acre of a suitable wheat fertilizer at the time of seeding, you not only provide for a sufficient top growth, but you give the rooting system of your crop an immense boost in strength which serves the plant exceedingly well when alternate frosts and thaws in spring cause the heaving of wheat or the heavy snows or ice storms of winter and spring tend to smother it out.

There have been hundreds of instances in Ontario during the last two years where fertilized wheat which had been sown late to avoid the Hessian Fly but was well fertilized, looked very unpromising when it went into the winter. In fact, it came through in spring looking so poor that the owners had contemplated plowing it up, but thinking of what effect the fertilizers had had in strengthening the roots of the plants, they let the fields stand. Immense, almost unbelievable growth resulted and in very many cases highly profitable crops were harvested. The plants which had made a comparatively poor start had developed extensive root systems which served them exceedingly well when the opportunity came for the wheat to grow.

Remember when fertilizing your winter wheat you are providing for the grain crop through the medium of enlarging and strengthening the root attachments to the wheat stand.

This Farm House Has Many Attractive Features



The house for which the floor plans are here presented was built last year on a 90-acre farm.

The site selected was in a little apple orchard on a gentle slope toward the west. The house was to face the east, however. A good view from the north kitchen was required. A large laundry and drying-room in the basement, which should be well lighted, was a further requirement set forth by the wife.

A washroom where the men might remove their outer garments when coming in from the fields and stables, and which was supplied with toilet facilities, was to be provided. This room was to be isolated.

With all this in mind, the floor plans were arranged as shown in the drawings. Entering the house from the front, one steps into a small hall. Conveniently on the landing at the foot of the stairs is a small coat closet. French doors lead into a living room that is well lighted and ventilated.

Since the house was to be heated by a warm-air furnace, the owner did not care for a fireplace. Double French doors lead from the living room to the verandah at the south of the house.

From the front hall one passes directly to the kitchen by means of a swing door. This door was desired by the owner so that the door might be always shut. Remembering that the efficient kitchen must not have too many doors, it is limited to four, these being arranged so as to leave a maximum of well-lighted wall space. A large double window and a glazed rear door provides very good light. A transom over the rear door secures good ventilation. No pantry is provided, the owner preferring wall cupboards.

The rear porch is screened, and is to be used for dining in the summertime. A screened porch is a very effective manner of keeping flies from the kitchen. This porch may be reached from either kitchen or dining room direct.

On the second floor are three bedrooms and a large bath, each provided with a large-sized closet. The rooms are rather small, but are so well provided with means for ventilation that the greatest objection of a small room is met. A clothes chute in the hall is convenient to all rooms.

The laundry room and drying room are located under the kitchen and washroom. It will be noted that the bath, kitchen, and laundry are located for economy of plumbing and water pipes. One chimney, having two flues, is also a distinct economy. The laundry is lighted by large windows in the wall under the porch and washroom.

Poultry

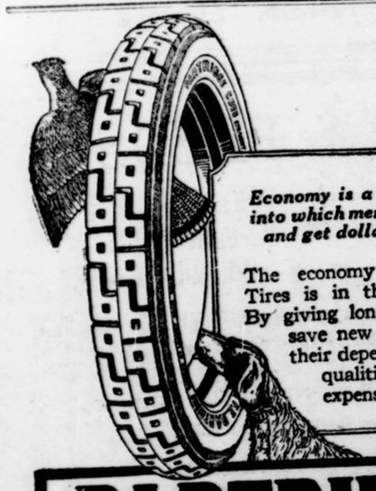
It is of the utmost importance that fowls be well fed when they are shedding their old feathers and putting on the new ones so that they will have in their systems the different elements required to grow feathers. These feathers require a good many different elements for the building of quill, web and pulp that is found in the base of the quill. A hen which receives only certain kinds of food has difficulty in developing in her system the different things required to make the feather. Therefore, if these various things are not supplied in the food, the feather-process proceeds more slowly and at the same time places a greater strain on the system of the hen and in that way retards her recovery and makes it impossible for her to lay as soon as she otherwise would. If a variety of food, such as is ordinarily fed to those hens which are laying, is given the molting fowls, their systems will have a chance to obtain the different elements required and the molting process will go forward as Nature intended it should and the hens will recover from the strain at the proper time and, equipped with a new coat to protect them from the cold of the coming winter, will produce eggs when the greatest profit on them is possible.

Confinement in hot hen houses hastens the throwing off of the feathers, but retards the growing of new ones because a hen which is not comfortable is not carrying forward the processes of digestion and development in her system that are required to grow these new feathers as they should be grown. A hen on free range with an open shed for shelter at night and during bad weather, is offered the best opportunity, other things being equal, to pass through this period and come out in the best condition. If free range is impossible, large yards with plenty of green stuff furnished daily is the next best thing, but if neither are possible the poultry house should be made as shady and airy in the daytime as is possible and it should be opened as much as possible at night in warm weather to prevent uncomfortable and unhealthful heat. Of course, the premises, including the house and equipment, should be kept as clean as possible for cleanliness is an aid to health and health assists molting.

Shade is very essential. Fowls shedding their feathers frequently have more or less of their skin exposed and unless they have sufficient shade, the heat of the sun beating directly on the skin, which has been covered during the year and is therefore tender, not only makes it uncomfortable for the fowls but injures to some extent the little cells which produce the new feathers. Therefore, if natural shade is not available, artificial shade should be provided for the molting hens.

Tractor salesmen who declare that the heavy horse is obsolete will make a poor impression on the minds of the general farmer.

Parents, teachers and schoolboards who last winter resolved that their school children should not eat pail or paper box lunches another winter, will before long be waking up the school-lunch topic. Be a pioneer in your neighborhood.



Cord or Fabric.

Economy is a savings bank into which men drop pennies and get dollars in return.

The economy of Partridge Tires is in their durability. By giving long service they save new tire costs, and their dependable wearing qualities eliminate the expense of repairs.

PARTRIDGE TIRES

Game as Their Name

U73

YOUR BABY

A series of instructive articles constituting, when completed, an entire course on baby hygiene and care of the child up to six or seven years old. Mothers are urged to read the articles as published, and cut them out for future reference. The information has been prepared by physicians who have made the welfare of the child a life study.

EIGHTH ARTICLE.

Bathing the Baby.

Baby must be bathed at least once a day. During the hot weather one or two extra sponge baths may be given. For the first few months the temperature of the bath should be ninety to ninety-five degrees F. By the end of the first year it may be lowered to eighty or eighty-five degrees. The temperature of baby's bath may be tested with the bare elbow, never with the hand. The water should feel comfortably warm to the elbow.

Equipment—Baby's own tub, soap, towels and washrag, bath thermometer, powder, clean clothes, chair and table. All these and his full set of clean clothing should be arranged beforehand.

Face—After undressing baby, wrap him in a small blanket, wash the face, head and ears, being careful not to get soap into his eyes and mouth. Very little soap is needed for baby's skin. It is most important that the skin should be rinsed thoroughly. Pat the skin dry with a soft towel, taking care to dry well back of the ears and in the soft folds of the neck.

Undressing—To undress baby, take the clothes off over his feet. If held on the lap, a large bath towel should be placed across the lap to prevent his tender skin coming in contact with a rough or worsted dress, and to receive him when he is lifted out of the tub. A more convenient way of bathing the baby is to undress him on a table instead of the lap. After the bath dress him as rapidly as possible. If the weather is cold, take care not to expose him unnecessarily.

The Bath—Care should be taken never to plunge the baby into water that it too hot or too cold, not to let him fall and strike the tub or in any way to get frightened at his daily bath. If the bathing is done properly, baby will enjoy his bath so thoroughly that the giving it will be a pleasure.

Soap the entire body thoroughly, then place him in the bath, holding him with the left forearm under the neck and shoulders, the left hand under his left arm, and lifting the feet and legs with right hand. Support the baby while in the tub with the left hand and arm. Sponge the entire body with the right hand, then lift the baby out and wrap him in a bath towel. Dry carefully with the soft towel, patting the skin gently. Never rub the baby's tender skin with anything less smooth than the palm of the hand.

Bran Baths—When there is any irritation of the skin, such as chafing or prickly heat, bran may be substituted for soap. Make a cotton bag of cheesecloth or other thin material, and fill loosely with bran. Soak the bag in the bath water, squeezing it until it becomes milky.

Powder—A little pure talcum powder may be used in the creases and folds of the skin, under the arms and around the buttocks, but it should not be used so freely as to clog the pores of the skin. A highly perfumed powder should not be used. Powder should never be applied until the skin is thoroughly dry.

Baby's Clothing.

In dressing the baby, he should be handled as little as possible. A little baby's body is very tender and if handled roughly or too much, he will be made very uncomfortable. All the clothing should be drawn on and off over the feet instead of over the head.

When he is dressed completely, baby has a band, shirt, diaper, skirt, dress and bootees. None of this clothing should be heavy or stiff. It is better to dress a baby lightly and slip on a little short jacket for cool mornings and evenings. When baby is a few months old, it is a good plan on a hot summer day to take off all his clothing for a few minutes in the middle of the day and allow him to roll and play on a bed.

Elaborate or fancy trimmed garments have no place in a little baby's wardrobe. Both mother and baby are better off without them, especially if the mother must care for the garments herself. Lace about the neck of a little baby's dress is liable to irritate the tender skin and cause the child a great deal of discomfort, as will starched garments. Sometimes these irritations are difficult to heal.

For the first few weeks of life, the new baby does little but eat, sleep and grow. He needs many clean clothes, and these should be of the simplest and most comfortable kind.

The Sunday School

SEPTEMBER 5TH.

The Building of the Temple, I Kings 5: 1-8: 66. Golden Text, Isa. 56: 7.

Preparation for the Building. Chapter 5. Hiram, king of Tyre, with whom David had had friendly relations, sent messengers to congratulate Solomon upon his elevation to the throne, and to renew those relations. Solomon sent an embassy in return to Tyre seeking the king's help in procuring timber out of the Lebanon forests for his building operations. Palestine itself had little or no large timber. The Phoenician people of Tyre and Sidon cut the big cedars of Lebanon and dragged them down to the sea for their shipbuilding and for their houses. They became expert at that kind of work, and Solomon spoke truly when he said, "There is not among us any that can skill to hew timber like unto the Zidonians." So now an arrangement was made between the two kings that Hiram's men should cut the timber, bring it down to the sea, raft it along the shore to a place near Jerusalem, and there deliver it to the men of Solomon, who would draw it up through the mountain passes to the city. For this labor Solomon resorted to one of the practices common in ancient kingdoms, that of forcing large numbers of men to give a portion of their time, in this case one month out of three, without remuneration. So timber was brought from the mountains, and great stones from the quarries were hewn out and fashioned for the building.

Date and Manner of the Building. Chapters 6 and 7. The work of the beginning of Solomon's great work is given as four hundred and eighty years after the coming out of Egypt, and the second month of the fourth year of his reign. The most careful reckoning of modern scholars places it at about 966 B.C.

The temple was a massive stone building about one hundred feet in length, east and west, and about thirty-three feet wide, north and south. The height was about fifty feet. The front was toward the east, where there was an entrance hall or porch. All about the walls on the other three sides were priests' chambers, three storeys high, above which were windows of lattice-work. The roof was of cedar from Lebanon. The interior was divided into two rooms, the larger next to the entrance, and the smaller, known as the oracle, or most holy place at the western end. The interior plan was thus like the tent temple of the wilderness. The building operations lasted more than seven years. (6: 37-38).

Other great enterprises of a similar nature occupied Solomon's later years. He built palaces and city walls in Jerusalem, and fortresses in other parts of the country, and the burden of the cost and the forced labor was very heavy upon the people, and became one of the chief causes of discontent which led to the disruption of the kingdom after his death.

The Dedication. Chapter 8. In the dedication ceremonies there were three principal acts: (1) The removal of the ark to its new resting place in the inner chamber, or most holy place, of the temple; (2) the speeches and dedicatory prayer of Solomon; and (3) the offering of sacrifice and celebration of the great feast of tabernacles, the autumn festival.

1-11. To Bring up the Ark. The ark was still an object of reverence, as it had been from the time of Moses. It represented to the people of Israel God's dwelling in their midst, and His covenant with their nation. David had brought it to Jerusalem, and had kept it in a tent in Zion, that is the new town which he had built on the site of the old Jebusite fort, on "the lower southern spur of the eastern hill of Jerusalem." The name Zion was afterward given to the entire hill, including the temple area on the north, and was ultimately applied to the entire city. From all parts of the country the elders, heads of the great families and clans, came up to be present on this solemn occasion.

The month Ethanim, the seventh month was, in the old Jewish calendar, which is still used by the Jews, the first month, and began in September. The cherubim, angelic figures with outspread wings, stood one on either side of the ark, the right wing of one and the left wing of the other meeting over the ark. In the ark, which was simply a box with a closed lid, were the stone tablets upon which were engraved the ancient laws (Ex. 25: 21; 40: 20; Deut. 10: 2, 5; compare Heb. 9: 4). The story of the covenant here referred to is told in Exodus 24.

The cloud, which filled the house, is the ancient symbol of the divine presence. Compare Exod. 40: 34-38; Ezek. 10: 3-4. It is in the thick darkness, or pavilion, of the cloud that he dwells, the lightnings are His flaming darts, and the thunder is His voice (Psalm 18: 11; 97: 2). But this God of mystery, whose habitation is shrouded in darkness, "whom no man hath seen or can see," will nevertheless condescend to dwell with men drawing near to them and revealing Himself in His holy temple.

Poultry Selling Hints.

The prompt answering of inquiries makes a good impression on a customer. The buyer who answers an advertisement is then interested but if he receives no more information concerning the goods his interest will lag. Sometimes a prompt answer will bring an order. Often a delayed letter arrives after the buyer has changed his mind and it receives no attention.

Rotate the sheep pasture in the summer; don't allow lambs to run on old pasture; put them on green forage if you have it and new pasture is not available.

MANNERS AND SUCCESS

One might wonder that manners could hold any part in a young person's climb toward success, but a little observation will prove they play a great part. Best of all, manners can be cultivated if they are not natural, but the boy and girl should be careful to cultivate the right kind of manners, for manners in business are quite different from manners of society.

How pleasant it is to meet a business man or woman with that personality which so quickly makes us feel ourselves important and interesting. It is very easy to do just the opposite and make one feel small and insignificant, but the buyer or visitor or patient or friend who meets the business man or woman in a business way and who is made to feel important will be apt to stand by that company or doctor or friend, whom the man or woman represents. On the other hand, a disagreeable and overbearing manner can greatly harm the interests of the employer.

The telephone is a means by which many people show their ill-breeding. In a business transaction the telephone serves as a means of making or breaking many. Much of the success of certain well-known houses is due to the manner in which all people are addressed over the telephone. A certain employer will not allow rudeness over his telephone and asks his friends to report any impertinence. He once called a man on the telephone and asked for him and the girl on the other end replied very rudely, "Who are you?" The man hung up immediately and turned to me. "I'm done with that house—a man who will allow his girls to talk like that isn't a good business man. Every one of my girls is instructed to answer the phone politely—just as she would if face to face and to say: "I'll see—who shall I say is calling?' No man resents that manner."

Manners which are affected or obsequious are out of place in an office just as much as are the loud, rude voice and chewing of gum. A quiet, cool manner giving the impression of efficiency is expected and shows more dignity than exaggerated bowing and scraping. If a man comes in and receives this kind of a reception he feels respected at least. If the manner can be made a little bit cordial, all the better, but avoid overdoing the matter. If he comes in and finds the girl sewing or reading a cheap novel and is greeted with a smirky expression as if the whole thing was a joke, he sets that house down as being not a leader. Success and efficiency go hand in hand and poor manners and efficiency do not agree.

The person who gets along well with all employees is bound to succeed if he wishes to do so and pushes himself up. But the girl who is hunting trouble and making jealous remarks about other employees soon finds herself out of work.

It is a wonderful gift to be able to keep cool in the face of argument and unjust treatment, but the person who can do so scores every time. There is strength in coolness, and he can think better and act more sanely than if he loses his temper. To be able to look on both sides of the question and judge fairly is a gift to be acquired. Many a perilous situation has been saved by some one who kept cool.

Personal tastes and feelings should be left at home and the good of the house considered. Men learned this years ago, and that is why we hear men in heated arguments one day and see them talking sociably together the next. They never think of the personal side at all.

And the pretty girl makes a great mistake if she tries to use that beauty to further her interests and take the place of good, honest work. If she is pretty and her manner is dignified and suitable to the office, she proves a valuable asset to her employer; but if she thinks only of her face and is continually trying to attract the attention of men away from their work, she is worse than useless.

When considering the subject of manners in business, just observe that the man who smirks and is loud never quite reaches such heights of success as does that one whose manner is courteous, kind, considering and dignified.

Buy Thrift Stamps.

See that the thrashing engine smokestack is equipped with a good, effective spark arrester.

Farmers should place near each set of grain stacks some barrels filled with water and a few pails.

Never—once—since the world began
Has the Sun ever stopped shining.
His face very often we could not see,
And we grumbled at his inconsistency;
But the clouds were really to blame, not he,
For, behind them, he was shining.

Peach stones, it has been discovered in California, burn as well as coal, and give out more heat in proportion to weight. The stones taken out of the fruit that is tinned or dried are collected and sold for this purpose.

What is neighborhood? One writer says it is that part of a community in which the people sing the same songs. Very good. But what is a community?

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