

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. An space is limited. It is advisable where immediate reply is necessary that a stamped and addressed envelope be enclosed with the question, whose answer will be mailed direct.



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C. H.: What can I do with my cherry tree? It was just fine last spring and came on just fine, but this year all the new leaves are covered with black lice. I have sprayed with common things and sprinkled with lice powder, but to no avail.

Answer: The pest affecting your cherry tree is undoubtedly the Cherry Fruit Fly. Sanderson says that this insect lays its eggs in the cherry from early June until the fruit ripens. The eggs hatch out quickly, and the maggot eats its way into the stone or pit. This causes rotting sections of the fruit. The insect passes the winter in affected cherries on the ground or that stay on the tree. No universally successful remedy has been developed. Deep fall plowing helps bury the insects that remain in the fallen fruit. Spraying with a poison mixture of sugar arsenate sweetened with brown sugar attracts the fly and sometimes kills considerable numbers.

D. M.: I have five acres of hay which I am cutting which will yield at least one and a half tons per acre of cured hay, half June clover and half quack grass. Which would be the best way to destroy the quack? Plow as soon as the hay is off and work well the rest of the season and plant to turn next spring, or wait till I get a good second growth of clover and plow it under and work it thoroughly next spring and sow it to buckwheat about July 1st?

Answer: I prefer the first method you mention. Believe it will exhaust the root system of the quack grass most. Next summer the hoed crop must have very careful attention and every blade of grass must be cut

down. In working the field this fall, after disking and harrowing, rake the root stalks together and after they have dried, burn them.

A. P.: We have two yellow plum trees. Last year they had plums on them for the first time. About three weeks before they were ripe they started to rot. By the time they were to be ripe they had all rotted. This year we sprayed them three times and they are rotting again. I would like to know how I could prevent them from doing this again.

Answer: The trouble is most likely Brown Rot of Plums. This disease spreads from spores which winter in the mummified fruit that hangs on the trees or falls to the ground. All such fruit should be carefully gathered and burned. The whole tree should be carefully sprayed with fresh Bordeaux mixture, strength 4 lbs. copper sulphate, 4 lbs. quicklime, 40 gals. water. Lime sulphur spray is giving good results as a control of this disease, too.

R. V.: What is the best fertilizer for raspberry bushes that have just fruited for the first time? The soil is gravelly and fairly well manured.

Answer: You need a fertilizer that will strengthen the canes and produce a moderate growth of good healthy canes, well hardened before winter frosts stop growth in general. Such fertilizer on an average soil should carry 4 to 5 per cent. nitrogen and 10 to 12 per cent. available phosphoric acid. Sometimes bone-meal is used with good success. Either fertilizer should be spread between the rows at the rate of 500 lbs. per acre, and worked in by harrowing.

Weeds That Are Worth Money.

One may well ask, "If nothing was created in vain, of what use are weeds?" The answer is simple, for some of our most important medicines are made from the most mediocre of weeds and herbs. For example, burdock, which has caused more than one man to use cuss words, is used as an alternative in skin and blood diseases. The seeds are also used medicinally to a limited extent. Yellow dock, with a root as long as your arm, is used for purifying the blood and in the treatment of skin diseases. Dandelion is used as a tonic in diseases of the liver and in dyspepsia.

Weeds are a necessary, useful evil. While they cause backache, they also cure it. Soapwort, May-apple, poke-weed, dogwood, white clover, spikard, wild ginger, dandelion, elecampane, burdock, and dozens of other weeds for example, can be turned into money if gathered and cured in the right way.

Two essential things that must be kept in mind in turning these drug plants into money, are to know which plants to gather and where to sell them. The roots of some plants, and leaves of others, and flowers of others, are used in medicine.

If you want to try your hand at selling drug plants, write the Department of Agriculture, Ottawa, for a free bulletin on drug plants. Bulletin No. 23, Second Series, "Medicinal Plants and Their Cultivation in Canada." This tells what part of each plant to gather, how to recognize the plant and how to dry them.

After all roots are dug or pulled, they should be thoroughly washed and put in a cool, airy place to dry. A barn floor is a fairly good drying shed, and serves quite as well as a building especially constructed for the purpose. Roots shrink considerably in drying, some weighing one-half what they weigh when green, when ready for shipment. They should, of course, be thoroughly dry before being packed for shipment; if not they will mold, and are absolutely worthless if in the least moldy.

Spraying the potatoes with Bordeaux stimulates growth as well as prevents most fungus diseases.

Poultry houses need special care during summer months, if flocks are to be kept free from disease and parasites. Hot weather makes pests most active and injurious. Keeping the hen-houses and yards sweet and clean helps greatly to check their attacks.

Fattening Feeds for Cattle.

Complaint recently has been frequent at the Toronto and Montreal markets of the number of unfinished or badly finished cattle that come forward. Not only do they depress prices, but they are so slow of sale that there is little or no profit in their handling. In Circular No. 106 of the Dominion Experimental Farms, Mr. G. W. Muir, Animal Husbandman, gives as facts of moment to breeders and feeders of beef cattle: first, that few animals are sent to market sufficiently finished to command the best price; second, that prices for finished animals are always highest between December and April; third, that the Canadian public discriminate against frozen beef, which means that were the markets regularly supplied with fresh beef more regularly better prices would obtain, and fourth, that a relatively small percentage of steers are classed as export steers as sufficient finished for the trade, hence winter finishing of such steers is advisable. Quality rather than quantity counts in improved trade and better prices.

With the facts here given, the circular proceeds to deal with the feeds best fitted for the wintering and winter fattening of beef cattle in Eastern Canada. These feeds are divided into three classes, dry roughages, succulent roughages, and grains. Of dry roughages, clover hay is the crop that is recommended most generally. Alfalfa cannot be grown everywhere and is more in demand for dairy than for beef cattle. Timothy hay, although often used, is neither as nutritious nor as economical to feed to beef cattle as red clover hay. Straw from the various cereals, of good quality, can be used to advantage in feeding beef cattle. Of succulent roughages—despite the boom for sunflowers—the circular maintains that corn silage is undoubtedly the most satisfactory for the winter feeding of beef cattle. All of the roughages should be home grown. Of grains, corn and barley are the best for fattening, but oats are good for growth. Peas are good as a feeding mixture, but are not so often available as the other grains.

Statistical tables are given in the circular of the digestible nutrients in the mentioned feeds. A request to the Publications Branch of the Department of Agriculture at Ottawa will secure a copy.

The Sunday School Lesson

AUGUST 6

The Temple Rebuilt and Dedicated, Ezra 3: 10-13; 6: 14-16. Golden Text—My soul longeth, ye, even fainteth for the courts of the Lord.—Ps. 84: 2.

Lesson Foreword—There is no section of the history of Israel so difficult to unravel in its historical sequence, as that which followed the return from exile. The following seems to have been the actual course of events: In B.C. 586 the Babylonians utterly destroyed the temple, so that for many years it was a heap of ruins. The people who were not carried into exile, meanwhile performed their ceremonies on a rude altar in the old temple area. Soon after the first return, the foundations of the temple building was suspended for a number of years, partly because of the opposition because the people were poor and partly also because those who returned had to build homes for themselves. In B.C. 520, under the urgent appeals of Haggai and Zechariah, it was commenced again and finished in B.C. 516.

The Foundations Laid, 3: 10-13. V. 10. The builders; the workmen mentioned in v. 7. These included the masons who quarried and dressed the stone, and the carpenters. Carpenters from Tyre and Sidon were hired because of their skill in woodcraft. Solomon had engaged them in the building of the first temple. Laid the foundations; on the site of the old temple. The fact that the Babylonians did not leave even the foundations standing when they destroyed the temple in B.C. 586, shows how complete was the demolition. Laying the foundations of any building, and especially of a temple, was considered a very sacred rite. In older times a human sacrifice was sometimes offered on the occasion. (See 1 Kings 16: 34.) The priests in their apparel; in their priestly vestments of fine linen. The priests, of course, were there because they were the guardians of Israel's sanctity, and because they alone could perform certain of the rites. With trumpets, the silver trumpets of the Levites, instruments of about a yard long and with a bell-like end, were blown to announce a sacred festival (see Num. 10: 2), to provide an interlude between each of the three sections of the psalm of the day and to increase a joyous mood. The sons of Asaph, the Levites were a subordinate order of ministers who did the more menial work in connection with the temple. Herodotus, who furnished the names of the Levites, was known as the sons of Asaph and the sons of Korah. With cymbals; bronze discs which were held in the hands of the performers and struck together. They were used to furnish an orchestration—the marking of time—for the chanting. The ordinance of David; it was traditionally held that David had instituted the musical service of the temple.

V. 11. The music of the temple was rendered by two choirs who sang antiphonally. That is, one choir would sing, "O give thanks to the Lord, for He is good," and the other would respond, "For His mercy endureth forever." This seems to have been a frequent form of liturgy at the great festivals. (See Ps. 136.) All the people shouted. The priests blew on their trumpets, the Levites struck their cymbals and the crowds of the people shouted triumphantly. This loud shouting refers to the moment when the foundation stone was laid in its place.

When Mares Should Foal. George B. Rothwell, Dominion Animal Husbandman, favors the breeding of heavy horses so that the mare will foal in the fall, or any time between September and December. If she foals in the spring much of her usefulness for work is lost. Under ideal conditions for the foal, the heavy brood mare should spend several weeks or the better part of the summer on pasture. By foaling in the fall the mare will raise her offspring at a time when ordinarily she would be idle or comparatively idle. That the foal may be strong and healthy, the mare should receive gentle exercise or light work that plenty of fresh air may be forced through the lungs. The fall-born foal is usually an active individual, avoids the tantalizing flies that are busy in summer, escapes in its infancy the trying heat, and does not have to follow a hungry mare over a scant pasture. A few hours a day spent in the barnyard in the winter will benefit the strong shaggy-coated foal, particularly when there is a shed or shelter of some kind. "Finally," says Mr. Rothwell, "the foal is weaned from his mother and faces the more trying summer conditions in a much different condition from that of his spring-born brother." If the date from which the age of the horse is reckoned were put forward to June 1 from January 1 the light horse would probably benefit from similar conditions as those the Dominion Husbandman argues for. As it is, many a horse that is born in December is considered on the New Year's Day following to be a year old.

Modesty is not a matter of clothes; it is an attitude of mind.

The young chickens and hens will return a good price for skim-milk and butter-milk fed them.

To remove scorch from white goods try rubbing the spot with the cut edge of an onion. Lay the garment in the sun and every piece of the scorch will be gone in a short time.

V. 12. Ancient men, that had seen the first house. The original temple was destroyed in B.C. 586 and the foundations of the new temple were laid in B.C. 536. Thus there was a lapse of fifty years between the two houses and the older men could remember very well the temple which stood there in their youth. Wept with a loud voice. Possibly they wept because the new temple was, in its plans, disappointingly insignificant as compared with Solomon's temple; it is also likely that they wept because the floodgates of memory were unloosed and they lived over again in their hearts the disasters and sorrows of the exile.

V. 13. The older men wept aloud for sadness and the younger men shouted for joy, and thus the sounds of sorrow and joy were so intermingled that those at a distance could not distinguish the one from the other. The commotion was audible a long way off.

II. The Temple Completed, 6: 14-16. After the foundations had been laid, the work was left off for a number of years. The Samaritans, when they were not allowed to join in the rebuilding, had strenuously opposed it. Those who returned from the exile had to build homes for themselves. Most of the people were too poor to contribute much to the building. Thus for one reason and another, it was about sixteen years before the building was commenced again.

V. 14. The prophesying of Haggai. In B.C. 520, Haggai appeared before the people and made a strong appeal for the continuation of the work on the temple.

V. 15. The temple was finished in March, B.C. 516.

V. 16. Kept the dedication. The dedication of the temple would be marked by special sacrifices, psalms of praise and other appropriate ceremonies.

Application. It is said that when Michaelangelo was carving his famous statue of Moses, his friends noticed that an impressive dignity came into the sculptor's features. For long weeks and months, Michaelangelo sought to understand the inner life of the great Hebrew patriarch, and then he tried to chisel in marble what he believed Moses must have looked like. Our belief in God, and our worship of Him must have ennobling influence over our lives.

Dr. L. A. Banks in one of his books tells of the religious meetings he attended when a boy living on a farm in the backwoods. There were no lamps and the rule was that each family attending service should bring at least one candle. The first man who arrived lit his candle and put it in one of the candlesticks, then others who arrived did the same thing, and as the congregation of worshippers grew, the place was illuminated. Every true worshiper adds something to the illumination of the world.

Writers and preachers of other days were fond of comparing the Church to a lifeboat seeking to rescue a few people from some great ship which was sinking. The great majority, they thought, must be saved, but the Church could do no more to save a few. The Church's program to-day is a much more ambitious one. It is nothing less than saving the race.



Helping May.

I am not fond of housework stunts— I fetch the coal and wood And go on errands for the folks As any fellow should;

But when it's wipin' dishes—no, That's work I hate to do. I dodge the job whenever I can. Now, really, wouldn't you?

But lately there has come to town A girl I rather like. She runs and plays just like a boy, And even rides a bike.

We make long trips together times When she can get away. She's kind o' pretty too, I think. Her name is pretty—May.

And when I call of afternoons To see if she can go I find she has some work to do Before she leaves, you know.

Then I just sail right in an' help So she can sooner play, An' wipin' dishes then is fun— When I am helpin' May.

I think, perhaps, when I grow up And start out then in life I'll have a home that's all my own, An' then I'll need a wife.

And won't it be a lot of fun When I come home at night, To find a table set for two And supper cooked just right?

An' after supper I'll get up, An' to my wife I'll say, "Come on; I'll wipe the dishes now. If you will wash them, May."

Production in hens is best maintained by forcing them to eat more mash during warm weather.

Music in the Schools Helps All the Other Studies

Music can be interestingly correlated with almost any branch of study, and still be a recreation and a diversion to the pupils. This was the key to an address on some phases of music in our schools that the writer lately had the pleasure of hearing. "Teachers who neglect to pass lightly over this important point," said the speaker in part, "greatly limit the breadth of culture that would otherwise result. It is a universally recognized fact that the chief asset of a nation is its children, and conditions surrounding their physical and mental growth are matters of the greatest importance. Whatever concerns the children of a community, interests the people.

"There are many instances of parents, almost wholly neglectful of social duties in other lines, who will drive over several miles of bad roads to see their boys and girls take part in some school exhibition. The seating capacity of school auditoriums is always taxed to the limit whenever a declamatory contest, a school concert, or anything of a similar nature, is staged. Pageants designed for school production, commemorative of some historical event, or graphically picturing some national humanitarian problem, afford excellent opportunities for the co-operation of the literary and musical resources, and are valuable educationally to an entire community. The last is especially true where a large percentage of the residents are foreigners. In many instances the school building is the most convenient and suitable place for community gatherings. So it naturally follows that the school be the centre of community interest, and that its leaving influence be widespread.

"The school music of to-day only partly fulfils its mission if it fails to take account of the desires and ambitions of the pupils to become instrumental performers. Even in small schools this branch of music is being carried on in connection with school work with a considerable degree of success.

"The piano seems to attract the greatest number. It is probably the most suitable means by which a child may gain early musical experience, and furnishes excellent preparation for the study of almost any instrument in which he may wish to specialize later. The violin is increasingly popular, and the brass instruments are gaining in favor. Advice as to the choice of an instrument and encouragement to continue in study and practice will make it possible to arrive at that most desirable goal of school enterprise, an orchestra. In itself it is a benefit to both school and community, and many of its members after leaving school will become factors in the musical organizations of their own or other communities whither their interests may lead them."

"What We Eat To-day, Walks and Talks To-morrow."

In a recent address Miss Helen G. Campbell, Demonstrator for the Dominion Dairy and Gold Storage branch, undertook to explain how the dairy and good citizenship were related, and to show how Women's Institute could aid, in ranking this widely understood. Primarily her argument was that good food made good citizens, and that there were no purer nor better foods than the products of the dairy. The benefits derived in particular from the liberal consumption of milk, especially by children could not be over-estimated. Health officers, without exception, took this view. Tests made with school-children in different cities confirmed its truthfulness. Abundant were the children benefited by a plentiful supply of milk physically but also mentally. Children who consume milk regularly and plentifully were stronger and more active and advanced more quickly in their studies than those who either manifested a distaste for milk or were deprived of it in their diet. Miss Campbell quoted experiences at several cities in substantiation of these assertions. It could not be otherwise than that children so nourished should become the best citizens.

Herbert Hoover, the famous food controller and director of relief for the United States in Russia and other famine-stricken countries, had declared that the greatest cruelty to any nation was to deprive it of its dairy cattle. With an abundance of cheap dairy products in this country, there were yet many undernourished children in every province because of the failure of parents or guardians to appreciate the value and importance of milk products to the development of mind and body. Surgeons could be heard by doctors, nurses, and other workers had established this fact, and had also revealed that undernourished children from this cause were to be found among the well-to-do classes as well as among the poorer. Such children are frequently to be found in the farm home. As well as the improvement of health generally, consumption of milk leads to the formation and retention of good teeth.

It is the duty of every good citizen to keep fit, and the generous use of dairy foods will assist in maintaining health and efficiency. The man who talks to-morrow" was stating a profound truth.

Poultry

Mrs. J. R.: My chicks were hatched in incubators and I am losing them real fast. At night they seem all right; in the morning their wings are drooped and they stand humped up. Some die during the day, and in the morning there will be as high as four or five dead in brooder. They are fed small chick feed, rolled oats and fresh water. They are now three weeks old and do not seem to grow very fast.

Brooder chicks might die from a great variety of causes. Lack of vitality in the breeding stock produces weak chicks. An over-crowding of the brooder will cause chicks to become droopy and stunted. Overheating in the brooder is a common trouble during hot weather and just as serious as chilling in the early spring.

Poultrymen are generally finding that the growing mash before the chicks at all times is one of the best means of producing a rapid growth. It can be made of equal parts by weight of bran, middlings, corn meal, ground oats and beef scrap. If you have only a small flock or lack of time to make a mixed mash, try using one of the commercial growing mashes. Sour milk is a fine developer for chicks and helps to reduce digestive disorders. A grassy range is a great help in making chicks grow. Young birds confined to yards lacking in

green food are apt to droop and become unhealthy. Shade during the day is necessary to protect growing birds from the hot sun.

If the eggs were overheated in the incubator it might cause weak chicks. But I believe if you try plenty of sour milk and the balanced growing mash that these chicks will do better and the mortality rate will decrease. Of course, better results with chicks can be obtained when they receive no setbacks of any kind from the time they leave the shell. It is sometimes difficult to bring back a flock that has become in bad condition.

Controlling the Cucumber Beetle.

An easy and effective way to control cucumber beetle is to dust with a mixture of arsenate of lead and land plaster. A very effective formula, as shown by tests, is one part by weight of powdered arsenate of lead to two parts of land plaster.

Land plaster itself has little effect in the beetle control but its fineness of texture and its adhering qualities make it an ideal carrier for the arsenate of lead. It is also very effective in that it is a fertilizer and has a stimulating effect on the plants, causing them to mature and fruit early. It is necessary to keep the beetle from attacking the cucumbers as this insect also causes the cucumber wilt and produces a grub which feeds on or in the stems under the ground.

Fixing Over the Tenant House

I have heard of people making their families fit the house, but when it comes to making the house fit the family I think it is about the latest thing out. Do you think enough of your tenant and his family to fix the house all over and make it larger? I think there are very few men to-day who fully appreciate what his tenant does for him, and fewer still that care about making things pleasant and helpful for his family. And still, perhaps you, yourself, were in the tenant's "shoes" in the good old days.

Nevertheless, there was one man in these same "good old days" that appreciated and took an interest in his tenant and fixed his house all over. His tenant had three children and there were only four rooms in the house, and these nothing to speak of. So he took it upon himself to make amends. There was a good-sized living-room needing new paper and paint just "washed up." And the dish cupboard was in one corner of this living-room. There were there two small bedrooms, so small, in fact, that by the time you got your bed up there was no room left for dresser or table or hardly any for yourself. Then, as far as doors go, there was an opening but no place for the door to go when you wanted to open it. So doors were just about forgotten in this house. The dining-room and kitchen were together and when company came the children had to wait until the second table, or had to stand up and eat, for

there was not room for more than six to sit down at the dining-table and have any room left to wait table. The house needed shingling badly.

First of all, the roof was raised and two sleeping-rooms added, one above the living-room and the other above the former bedrooms, each had large clothes-presses at one end and the extra clothing was taken care of. An open stairway led up to these rooms from the living-room, and a cellar was added under these. Then rooms was taken out and this made a nice comfortable dining-room. A large window was made in the north wall and the dish cupboard moved to this room. The kitchen was painted and the other two rooms fixed up in fine shape. A large sink and drain were put in the kitchen and much disagreeable work was eliminated, as well as unsanitary surroundings.

A verandah extending across the entire front of the house, was then put on and the outside was painted. It made such a difference in the house that people going by often spoke of the new house that So-and-So put up for his hired man. They said he would not be able to get enough extra out of his land to warrant such an expenditure of money, but when they found it cost only \$200 they were amazed. Is the hired man worth the price? If not, you had better get one that is, for a poor man is an expensive proposition at any price.—Mrs. M. J. H.

Keeping Up With the Children

By Margaret A. Bartlett

Two women, classmates, met for the first time some fifteen years after their graduation. One was a business woman, fairly successful in her chosen field in a large city; the other was the wife of a moderately-salaried bookkeeper in a town of fewer than 10,000 inhabitants, and was the mother of four happy, healthy, intelligent children.

The women sat on the porch of the small vine-covered house which had become truly "home" by means of much planning and saving, and talked gaily of old times, the mother all the while industriously plying her needle as she endeavored to lower the huge pile of stockings that towered from the work-basket by her side. Yet in spite of her never-idle fingers, her eyes sparkled with the brightness of youth, and her cheeks glowed with the freshness of health. All freshness of age, however, from the face of her friend. There was a dullness in her eyes, and a lack of natural color in her face, which bespoke only too well of the artificial life of the business world. Wearily she leaned back in her chair.

"Fifteen years!" she mused reminiscently. "Fifteen years! since we left school. Does it seem possible, Marion?" she asked, with a laugh. "We like to look back on those years; school, but, really, Marion, what do you remember that you ever learned there? I believe I've forgotten everything except the bit of knowledge that has had directly to do with my business life."

The good mother smiled in her turn. "You wouldn't say that if you had four inquiring youngsters," she asserted.

"Why? Do they bring home a great deal of school-work for you to do?"

The mother laughed. "No that isn't what I meant," she explained. "Only Ted and Dot are in school, you know; but as soon as the children get over their shyness and get accustomed to having you here, you'll have a chance to see for yourself what I mean. Why, Belle, you think that any woman can be a mother, that the knowledge required to bring up children is very slight indeed—but you don't know anything about it. To be a real mother, a successful mother, a mother who will be instrumental in raising up good men and women, a woman has to be a regular walking encyclopedia. Forget all I ever learned at school? I should say I hadn't! I've had to remember every bit I ever learned, and I've had to keep on studying ever since, just to keep up with the questions my boys and girls are constantly asking.

"I once heard a lecturer on child culture tell a number of mothers that they should take an hour a day to devote entirely to their children. Well,

Jane (from the city): "O, Aunt! I went into the orchard to ask the brown cow to give me some milk and her husband chased me!"