Farm Crop Queries

Conducted by Professor Henry G. Bell.

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 pretaining 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. 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 mailsd direct.

Question—S. H. (1) How can I best get humus into a sandy soil? I have a field of about 5 acres which is unproductive. Last year it was not even good for grazing. I ploughed it last fall and have been thinking of sowing it in the spring, and turning it under the following spring. What would you suggest that I sow and get a fair crop the same year, yet improve the soil?

Answer—You would do well in the spring, as soon as the ground will work, to harrow it down to a smooth seedbed, first having given it a dressing of from two to five tons of manure to the acre; then seed it to an early variety of oats, such as O. A. C. No. 72, or Daubeney, using about 1½ bus. of seed to the acre. Seed this with about 10 lbs. of Common Red Clover and 4 lbs. of Alsike to the acre. The oats will harvest early, and the clover should get a pretty good growth by fall. As soon as it has made a satisfactory start in spring, instead of cutting it, plow it under, and you will have enriched your soil by a good addition of organic matter.

Question—(2) What is the best fertilizer to use for potatoes on sandy soil, and what quantity should be applied per acre?

Answer—Potatoes on a sandy soil should receive a fairly high-grade fertilizer. You will do well to use one carrying from 4 to 5% ammonia, 8 to 10% available phosphoric acid, and as much potash (up to 3%) as you can get this year. If you cannot buy a fertilizer with a high amount of potash, you will do well to apply wood ashes, up to ½ ton to the acre, working it into the soil before you apply the fertilizer. If you do apply wood ashes, be sure to treat your seed potatoes with formalin in order to kill the spores of the scab which is likely to thrive where wood ashes have been applied. In applying the fertilizer, if you are putting on 500 lbs. or more to the acre, apply one-half through the fertilizer attachment of the grain drill, if you have a grain drill with fertilizer attachment, or spread it broadcast over the potato field before the last harrowing if you do not have a drill distributor. Thoroughly harrow this fertilizer into the soil and apply the rest of the fertilizer through the fertilizer dropping attachment of the potato planter. It is not advisable to apply more than 300 lbs. to the acre through the fertilizer attachment of the potato planter; hence any excess of this amount should be worked in broadcast when preparing the potato seedbed.

Hogs

Don't expect to succeed with hogs if you give them any old thing to eat.

Pigs must be fed clean wholesome food if you wish to eat fine hams and bacon of delicious flavor.

The ill-smelling pig-pen is a relic of the past in up-to-date farming communities.

Cleanliness is the watchword for success with pigs.

To expel worms from hogs the following prescription is right for a pig weighing about 100 pounds: Santnio, five grains; calomel, two grains; areca nut, two grains; sodium bicarbonate, one dram. Keep the hogs off feed for about twelve hours and give the dose in a slop of middlings. The evening of the same day give a mash of wheat bran. This will flush the bowels. Gather all worms and burn them.

Worms often are the forerunner of disease.

If hog or pig has a big appetite and thriftless condition, with dry dead hair, it is a good indication of the presence of worms.

Sheep Notes

Sheep will stand a lot of cold weather, but draughts are as dangerous to them as to other animals.

Do not crowd the flock. Exercise is very essential to the ewes and the coming lambs.

Feed regularly, and be quiet and kind to the flock. Sheep appreciate a kind, well-modulated voice.

Provide for plenty of clean fresh water in the sheep barn. Give it fresh every day.

Are yours just sheep, or the very best you can find?

When a sheep does not chew its cud or eat, you have a sick sheep on your hands. Good treatment is to take the sheep out of the flock, put it in a sunny yard or pen and give it a chance to drink what pure water it will. Don't urge it to eat, and be patient.

The man who lets his flock get a part of their living by pawing through the snow shows a lack of wisdom.

Ice-cold water must be warmed up in the sheep's stomach. That costs more than it would to do it on the stove.

The Dairy

Silage furnishes a juicy food for winter, and thus helps to keep the digestive organs of cattle in good order.

On the same acreage, two cows can be kept on silage at the cost of keeping one cow on hay or other roughage.

Plan to look over the pasture fences as soon as the winter is over. No time to stop to fix them after the stock is turned out and you are busy with the plowing.

Fear, cold, any kind of discomfort, are expensive in a dairy herd. Comfort always means profit. It is up to you if your cows do not turn you a profit.

Give the heifers that are to calve in the spring very special care. They should have exercise, but not where they can be knocked around by the older cows.

They should be handled every day, and made very gentle and tractable. This handling will be found to have been time well spent when they come into milk.

Horse Sense

If a horse has a loud, dry, hoarse cough, becoming moist later on, loud and frequent respirations, dullness, ropy saliva from mouth, bowels costive and urine high colored, and stands continuously, he is showing symptoms of bronchitis.

See that he has comfortable, well-ventilated quarters, excluded from draught. Apply mustard to breast and sides. Steam nostrils, holding head over boiling water with a little carbolic acid. Give cold water with 3 or 4 drams nitrate of potassium in it. When inflammation subsides, give dram doses each of gentian, ginger, and sulphate of iron 3 times daily.

If hay is kept in front of idle horses all the time they will keep on eating it, to their own detriment, and at the waste of a lot of good feed.

It is more economical to give a small feed of grain at noon than to stuff them with hay. Give just as much hay morning and night as will be eaten up clean in a reasonable time.

Study your horses. Some require more roughage than others to keep them in condition. Some horses will never stuff themselves with hay, no matter how much is given them; others will eat everything in sight. The intelligence of the feeder must control the situation.

Bring the head-stalls into the kitchen at night if the stable is frosty, or cover the bits with smooth leather. Never put a frosty bit in a horse's mouth.

The idle work horses and the colts should spend a few hours every pleasant day in a sheltered yard. Never leave them out until they are chilled; that doesn't pay.

Be very careful with the breeding mares. Don't let them slip, and don't make them back heavy loads. A good teamster will manage to make his team back as little as possible. Backing is unnatural and very straining.

Poultry

Never feed chicks till the third day after hatching, let them have all the the dry sand and water they will take. Their first real feel should be rolled oats and hard-boiled eggs chopped fine. Two tablespoonfuls are sufficient for 100 chicks.

Are pens mated up? Don't delay any longer.

Fowls, like men, tire of sameness in diet. They must have a variety in the bill of fare to do well.

Select the breed intelligently, and then care for it judiciously. The man who sticks to his breed, getting out of it all that is possible, is the man who succeeds.

Neglect does a lot of mischief in the poultry yard. The fowls need regular attention. There are many details that must be heeded, or disaster may result.

It doesn't seem possible, in this era when the pure-bred fowl has proved its worth to be double that of the mongrel, that any intelligent farmer should tolerate the latter. But, alas, there are still some Peter Tumbledowns in our rural districts!

If a hen is not comfortable, if she is not provided for according to her demands, she just simply refuses to produce eggs. She can not be fooled; she can control her egg output at will.

GENERAL BROWNSELIF,

Special Envoy from Russia to Great Britain, in the matter of important army arrangements. The lady is his daughter.

THE SUNDAY SCHOOL

INTERNATIONAL LESSON

MARCH 4.

Lesson IX. Jesus Feeds The Five Thousand—John 6. 1-21. Golden Text.—Matt. 6. 11.

Verse 1. Tiberias—An almost exclusively Gentile city, gave its name to the lake; it occurs only here and in John 21. 1. The town is mentioned in verse 23; it was named from the then ruling emperor, Tiberius.

2. Followed—Some in boats, but mostly on foot round the north end of the lake. Signs—The Evangelist's interpretative word; he could never think of them apart from what they "signified."

3. The mountain—The high ground southeast of Bethsaida Julias, toward which town (in the northeast corner of the lake) the disciples started their return journey, keeping near in shore, as we gather from Mark 6. 45, as most probably explained. The crowd had not much further to go by land from Capernaum to Bethsaida than the boat by water. Apparently Jesus landed in a quiet place and went up to rest on the hill; Mark tells us that the people had to some extent got to the eastern side first.

4. This is not a mere note of time: the Evangelist is thinking of a feast that is to supersede what the national apostasy made only a feast of the Jews, eternally connected with Passover by the event of a year later.

5. Philip—Of the neighboring town of Bethsaida (John 1. 44). (There is no real evidence for another Bethsaida on the western shore.) He might be supposed to know where a large supply of bread could be bought. But as one who had so quickly realized the greatness of his Master (John 1. 45), he might also have been expected to feel sure that Jesus could deal with the emergncy. Here he failed, as he did in John 14. 8. In John 12, 22, as here, Andrew comes to his help.

7. Shillings'—Philip makes a businesslike estimate of the amount, which would give them, say, half a loaf each: if that was the allowance he had in mind—for the loaves were only the size of buns—one denarius would purchase about a dozen. A denarius was an ordinary day's wage (Matt. 20. 2).

8. Andrew—A quiet inconspicuous to his forceful brother. But it was he who brought Peter to Jesus, and he was clearly, for all his quietness, a man, only named as an appendage man to be depended on.

9. Barley—Compare Rev. 6. 6, showing that barley was only one third the price of wheat. Note how full of new details is John's story.

10. Much grass—Passover time was the one period when this was the case; it was soon burnt up by the dry weather, as we see well in India. The men—This does not mean that the women and children (Matt. 14. 21) stood. But there would only be a few of them, and the rough estimate of numbers—made, perhaps, by Philip—was made from the men only.

11. He distributed—Through the comes the keynote (verse 23). "Thanksgiving" (Eucharist) became the special name of the spiritual feast on which this story is a commentary.

11. He distrimuted—Through the twelve, as Mark makes clear. We picture each disciple filling from the Lord's hands the baskets he carried, and then going down between the files giving them out the loaves broken into halves. They went round again, till all had enough.

12. Broken pieces—Not fragments, but half loaves which the men had not touched.

13. Baskets—Small ones, such as Jews were accustomed to carry about, according to a Roman writer. In the other story (Mark 8. 8) seven fishermen's baskets were filled: the word is that found in Acts 9. 25, and denotes a bigger kind.

14. The Prophet—"Like unto" Moses. See Lesson Text Studies for Febuary 11, verse 25.

WOMAN GETS MILITARY MEDAL.

Army Nurse is First Woman to Receive Medal for Bravery in Field.

For the first time in history a woman has won the Military Medal, and it has been awarded to her "for bravery in the field."

She is Staff Nurse Catherine Margaret Carruthers, of the Territorial Force Nursing Service, and the honor now awarded to her is announced officially in the London Gazette.

Sir Douglas Haig mentioned her in his despatch of November 25 last. Nurse Carruthers was bravely carrying on her work of mercy, calmly caring for the wounded in very dangerous circumstances in a "hot" region in France. She was eventually slightly wounded by a shell which burst near the spot where she was on duty. The courageous nurse has now recovered, and has resumed her work among the wounded fighters.

Miss Carruthers, whose home is in Ireland, was trained at the Royal Infirmary, Glasgow.

She afterwards joined the Territorial Force and was posted for duty at the 4th Territorial Hospital, Glasgow, a few days after the war began. Some months later she went to France, where she has been doing valuable work in the face of danger.

Gallant Little Battle.

South Africa is ringing with the stirring glory of how 25 of General Northey's Rhodesian column in German East Africa kept at bay and dispersed 250 German and native troops The Springboks fought from 10 in the morning until 6 o'clock at night with a loss of only five killed. A volley checked a rush by the askaris who, in a state of panic, retired with 85 casualties. The defenders had only two cartridges left, says the Exchange Telegraph Company.

Paper From Grass.

The Government of the South African Union is investigating the resources of the country in regard to papermaking material, of which large quantities are known to exist. Vast areas of native grasses are to be found in different parts of the country, and it is to these that special investigation is now being directed.

RECRUITS FOR NAVAL SERVICE

The Women of Canada Are Asked to Support Campaign for Royal Navy Volunteers.

The Pendant Offered by Lady Gwendolen Guinness

Captain the Hon. Rupert Guinness, A.D.C., C.B., C.M.G., R.N.V.R., Senior Officer of the Royal Naval Volunteer Reserve, and his wife, Lady Gwendolen Guinness, sailed a few weeks ago for England after having spoken in almost every town of any size in Canada from Sydney and Halifax on the Atlantic, to Vancouver and Victoria on the Pacific.

Their aim was to organize Committees to secure recruits for the Overseas Division of the Royal Naval Canadian Volunteer Reserve, and the work which they launched and which was unreservedly helped along by the Hon. Mr. Hazen for the Canadian Government, has already had splendid results, and hundreds of good recruits have joined the Navy under the auspices of the R. N. C. V. R.

Before leaving, The Lady Gwendolen made arrangements to have a specially designed souvenir pendant distributed through the various recruiting centres to the Mothers, or Wives—or Sweethearts whose influence had helped to secure recruits.

This pendant is a very pretty one of silver—gilt—and bears the motto "I helped to serve."

The badge is now, we are informed, being distributed by the Committees and will doubtless be worn by many women as a badge of honor, as well as a souvenir of their loved ones. The illustration gives some idea of its general appearance.

Your Problems

Conducted by Mrs Helen Law

Mothers and daughters of all ages are cordially invited to write to this department. Initials only will be published with each question and its answer as a means of identification but full name and address must be given in each letter. Write on one side of paper only. Answers will be mailed direct if stamped and addressed envelope is enclosed.

Address all correspondence for this department to Mrs. Helen Law, 75 Castle Frank Road, Toronto.

S. W.:—1. Efficiency is indeed a word to conjure with, and nowhere is it more needed than in the Canadian household at the present time. A food expert gives the following five ways in which he estimates twenty per cent. of the money expended for food is wasted. 1. Needlessly expensive material. 2. A great deal thrown away. 3. Bad preparation. 4. Failure to select rightly according to season. 5. Badly constructed ovens. Protein foods are eggs, meats, fish, beans, peas, cheese. Starchy foods are the grains—wheat, rice, rye, oats, corn, etc., and potatoes. Fats are nuts, cream, butter, lard, fat meats. Minerals are contained in carrots, lettuce, spinach, beets, parsnips. A well balanced meal consists of one protein, two starch, two mineral and one sweet. You will see therefore that beans and peas should not be served with meat. 2. The proper height of working surface for a woman of five feet three inches is 29½ inches. For every inch in a woman's height there should be a variation of half an inch in the height of table, ironing board, sink, etc. 3. Time savers are: Food choppers, bread mixers, cake mixers, washing machines, dish dryers, silver clean pans. There is also a long list of electric devices: irons, washing machines, vacuum cleaners, toasters, grills, percolators, fans, ventilatorss.

C. H. D.:—1. A cleaning liquid for the nails can be made as follows: One dram tartaric acid, one dram tincture of myrrh, two drams cologne water, three ounces water. Dissolve the acid in the water, mix the tincture of myrrh and cologne and add these to the acid solution. Dip an orangewood stick in this, apply to the nails, and polish with a chamois skin. 2. When eating soup the spoon should be dipped away from oneself and the soup be taken from the side of the bowl, not the tip.

H. B.:—1. To disguise castor oil pour a small quantity of lemon juice in a tumbler, then add the castor oil, and on top of this more lemon juice. The acid taste completely disguises the oil. 2. If tapes of about 4 inches in length are sewed to the tops of stockings and each child is taught to tie his or her stockings together before putting them in the wash basket, the time and trouble taken in mating the stockings when they come from the wash may be avoided. This is done at many boarding schools and is found to be satisfactory.

A. F.—1. To set the color in gingham put the garment before washing into strong salt water. Let it stand for ten or fifteen minutes and then dry thoroughly and as quickly as possible before washing. Adding one teaspoonful Epsom salts to each gallon of water in the washing is another good way to set color. Of course, under present dye condition, some dyes will run in spite of all you can do. 2. Rice should be stirred very slowly into rapidly boiling water and the water kept at a brisk boil if the rice is to be flaky and not mushy. It should be stirred lightly with a fork, as a spoon will crush the grains. 3. A cloth should be wrapped tightly around a frozen water pipe before pouring hot water over it to thaw it out. 4. One pair of stockings will make a capital iron-holder if split and folded neatly into a square, quilted and bound round the edges. Slip a piece of asbestos cloth between the folds to keep the heat from the hand.

A NEW BRITAIN.

Lloyd George Spirit of Grim Determination Seizes Nation.

Herbert H. White, business manager of the Harvard Unit in France and England, has just returned home, after two busy months, and, in an interview in the Boston Globe, he says that the war in Europe was never more serious for all concerned in it than at the present moment. A great change has come over Great Britain the past few months, and especially since Lloyd George and the Committee of Five took charge of the war.

Mr. White says that since Lloyd George took office the people of Great Britain have been made to feel and realize the full—the terrible seriousness of the war.

Lloyd George seeks neither to hide its seriousness nor his own determination to go at it in a serious and relentless manner, and to pay the full price in blood and treasure and in such sacrifices as that relentlessness will entail.

And apparently that is what the British people want—and that is why they are submitting, without a murmur to such conditions and sacrifices as were never known in the country before.

The day of "laissez faire" has passed in England—the day of grim determination and work at "full speed ahead" has come.

Fools rush in where angels fear to tread. "What a lot the angels on earth owe to the fools!"

"Nobody can say our town ain't literary," said the old cowman. "No?" asked new arrival. "No, 'cause we killed a poet here once, just so we could build a monument to him."

MORE DIVIDENDS FROM GARDEN CROPS

This Year, If Ever, the Opportune Time for Making Money From Vegetables.

Five acres of Ontario soil near a good market can be made to easily support a family in comfort. In potatoes alone the returns would run, under ordinary prices, at from $100 to $200 per acre. From $400 to $500 per acre can be made from cauliflower. Many people will be inclined to regard these figures as exaggerated, but they are facts, and many cases can be pointed out to substantiate our statements.

With proper soil treatment, the average garden will produce at least a half more than it now does. Several things must be borne in mind, however, to make a success with garden crops, such as onions, potatoes, cabbage, etc. The soil must be suitable, cultivation must be thorough, varieties the best for the district and the market, and good salesmanship.

The plot selected for the garden should be well drained, and must not be shaded to any extent. Drainage takes away surface water rapidly, and keeps the soil water away from the surface, thereby allowing the roots to grow deep and the air to enter the soil and aid in decomposing it. Fertility is another most important feature. The need for fertilizer is shown by low growth and pale color in the plants. Stable manure, bone meal, or good commercial fertilizer should be used to renew the elements required by the soil.

Germination.

Crops are often lost through the failure of the seeds to germinate. Don't blame your seedsman for this. It is usually because in planting the soil is left loose about the tiny seeds, and the dry atmosphere penetrates to them, shrivelling them up until all vitality is destroyed. Vegetable crops as a rule are sown in rows, and in every case, as soon as the seed is sown, it should be pressed down in the drill with the foot, then covered up level by the back of a rake, drawn lengthwise of the drills, and again firmed by the roller or back of a spade. For want of this simple precaution, perhaps one-quarter of all seeds sown fail to germinate. Again, for the same reason, when setting out plants of any kind, be certain that the soil is pressed close to the root. We have seen whole acres of cauliflower, cabbage and strawberry plants lost solely through neglect of this precaution.

Value of Rotation.

In order to secure maximum yields, and to keep down weeds, the systematic rotation of farm crops is an acknowledged necessity. Why not, therefore, plan the varieties of vegetables and their planting time so as to secure a continuous and abundant supply of good, fresh green things? It is just as easy as any other method of garden management, and it is much more satisfactory.

For example a crop of radishes, turnips, spinach or lettuce sown in April, will have ripened so that the ground can be cleared, dug up, and manured, and again used by the first of June, when such crops as cucumbers, peas, tomatoes, or sweet corn can be planted, and so on all through the list.

The crops should be moved around from year to year, so as to give the soil a chance to recuperate. Where a number of successive plantings are desirable, as with peas, it is an excellent plan to plant a third or fourth crop between the rows of the first crop, removing the vines of the first crop as soon as the pens have been picked.

The observance of the foregoing suggestions, along with instructions for planting, which most reliable seedsmen supply with purchases of seeds and plants, should enable any thoughtful and ambitious person to make a success of growing the common and most popular summer vegetables.