

Farm Crop Queries

Conducted by Professor Henry G. Bell.

The object of this department is to place at the service of our farm readers the advice of 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. 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.

Henry G. Bell.

Question—V. B.:—Will you please give me a little advice about hog pasture? I had a hog lot which I manured and intend to summer fallow. It was clover last year. I have a grass pasture for the hogs now. What is the best to sow on this lot? Can I sow grass seed and have a grass pasture next year, and what kind?

Answer:—I would advise you to plow the lot in question, and carefully disk and harrow it. Then sow a mixture of grass seed somewhat as follows:

10 lbs. common red clover
8 lbs. timothy
2 lbs. alsike

Total 20 lbs. per acre.

This should be distributed evenly and harrowed in thoroughly. If the ground is rather open in texture, I would advise you to roll it and then follow with a light harrowing. In order to insure a good catch of grass, we recommend that you add 200 pounds per acre of a fertilizer carrying 2 to 3% ammonia, 8 to 10% phosphoric acid and possibly 1% potash. Distribute this evenly just after the ground is plowed, so that the disking and harrowing will work it into the soil before the grass seed is sown.

Question—E. B.:—How should orchard grass be sown and how cultivated? I have twice sown orchard grass with barley without success. What caused the failure? When is the best time to sow orchard grass, in September, or October or the Spring? How much should be sown to the acre?

Answer:—If the orchard grass seed is of first quality, from 18 to 20 pounds per acre is sufficient. Otherwise, increase the quantity up to 30 pounds per acre. Probably your difficulty in seeding orchard grass with barley is that you have used too much barley and smothered out the grass. Do not use over a bushel of barley per acre when growing this crop as a nurse crop. Furthermore, orchard grass is rather slow becoming established. The first year it looks very weak. The second year root stalk have developed and a vigorous stand is present. It does not reach maximum growth until the third year. The best time to seed orchard grass in

Piano Firm 18 Years Older than Confederation



On July first Canada celebrated the semi-centennial celebration of Confederation.

Looking back over the progress accomplished in Canada during those years, the many remarkable achievements seem hardly possible.

The industries of Canada have progressed step by step as the population increased. Among the older "true Canadian" firms is The Williams Piano Co., Ltd., of Oshawa, Ont., makers of the famous Williams New Scale Piano.

R. S. Williams came from England and established this concern in 1849—68 years ago. Canadians will feel proud to know that they have such a "true Canadian" piano—the Williams New Scale, which they can be proud to place in their home. The Williams Piano Co. at Oshawa will be glad to send interesting points concerning the "Artist Choice" piano, free upon request.

Ontario is in the Spring at the time the usual clover and grass mixtures are sown.

Question—A. W. B.:—I am very much troubled with chaff or cheat in my crops. Will you kindly let me know the cause and how to get rid of it?

Answer:—Chaff or cheat is one of the brome-grasses which seeds about the time the wheat ripens. The seeds are usually scattered by the cutting of the wheat. In preparing seed wheat it is difficult to separate them from the good wheat by fanning. Hence, they are spread year to year at the time the wheat is sown. It is a comparatively easy matter to get rid of the pest by planting your crops in a rotation where wheat does not follow wheat for two or three years. Clean cultivation and planting of good clean seed will quickly rid you of the pest.

Question—R. S.:—What is the best time to make a meadow, in the Fall or in the Spring? How much seed is required for an acre?

Answer:—As a rule, in Ontario best meadows are established in spring. Fall plow the land and leave it in rough furrow until spring. As soon as it is dry enough to work in spring, disk and harrow it to a smooth seed-bed, then sow a grass and clover mixture, using either wheat, barley or oats as a nurse crop. Best results are obtained from using wheat or barley as nurse crops, since these grains ripen early and are soon removed from the ground. Do not seed the nurse crop too heavily. A bushel and a peck is usually sufficient to the acre when using as a nurse crop. For a grass mixture the following is common in Ontario:

10 lbs. common red clover
4 lbs. alsike
6 lbs. timothy

20 lbs. per acre.

Make sure of the quality of the seed by testing a couple of hundred seeds between blotters. Dampen the blotters and place them on a plate, putting the quantity of seed you are testing between them. Keep the blotters damp but not soaked, and if testing during the winter keep the test in a warm part of the house. In a week or ten days the seed will have sprouted and you can estimate the percent of good vigorous seed. This insures the using of seed that will grow. It does not matter how well you prepare your ground, if you do not sow good vigorous seed results will not be most satisfactory.

In order to insure a good catch I would advise drilling in at seedling time about 200 pounds of fertilizer analyzing 1 to 2% ammonia and 10 to 12% available phosphoric acid at the time that you are sowing the grain and grass in spring. This available plantfood gives to the grass and clover what whole milk gives to the young growing calf. It is rich in available plantfood which will greatly assist in insuring a good catch of both clover and timothy. It will also help the grain crop.

To Hold a Cookbook Open.

The most satisfactory thing with which to keep a cookbook open when in use is a sheet of glass bound with pressure-parting binding and kept for this purpose. The book is opened wide, and the glass laid over the opened pages not only keeps your place but prevents the pages from becoming soiled while in use.

Fools learn nothing from wise men, but wise men learn much from fools.

The law of booty governing the Israelites is given in Num. xxi. 26-47. Booty consisted of captives of both sexes, cattle and whatever a captured city might contain, especially metallic treasures.

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the pure cane sugar with "FINE" granulation that dissolves instantly, giving a clear bright syrup.

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Poultry

Market Calendar.

The culling of non-layers from the flock should be continued throughout July. The season of high production is over and at the high price of feed, it does not pay to keep hens as boarders throughout the summer.

Sell in July old hens, broilers, green ducks and old ducks.

Secrets in Securing Layers.

An egg-laying strain can not be produced by inbreeding. In order for a hen to be a good producer, she must be in good health and full of vigor. Use a male that was bred from a hen that laid 200 eggs or more in a year. Breed for high averages instead of exceptionally high individuals. A good layer usually stands high in front and her back is not on a level, or the rear higher than the front. The best producers usually have large combs, a high tail, and a prominent, large bright eye. Prefer the wedge shape, rather narrow in front but wide behind, and wide between the legs. A hen inclined to be squirrel-tailed is the best layer.

Not always the largest hen is the best layer; generally the smallest one. The heavy laying hens are those with white legs.

A tight-feathered bird is a better layer than a loose-feathered one.

As a rule, the first pullets of a brood to begin laying make the best layers, and the first cockerels to crow usually make the best breeders for egg production.

The laying hen is usually nervous and active; she has a strong appetite, evidenced by a full crop at night; she is the last to retire at night and the first to be about in the morning; she is also late to molt in the fall; she is distinguished by width and depth of abdomen; the comb is usually large and the eye bright.

An authority says that an examination of the earlobe is considered to be almost infallible. A chalky white earlobe indicates that a bird is laying heavily, whereas a cream-colored one shows that the bird is laying moderately, has just started or has just stopped. A milk-colored earlobe shows that the hen has laid slightly or has stopped laying. A very yellow or dark earlobe indicates that the hen has not laid at all. A extremely white earlobe also may mean very low vitality. The more velvety the texture of the hen's comb the better her health, and it is almost a certain sign that she is laying heavily.

A SNAKE GARDEN.

Venomous Serpents Preserved as Subjects For Scientific Study.

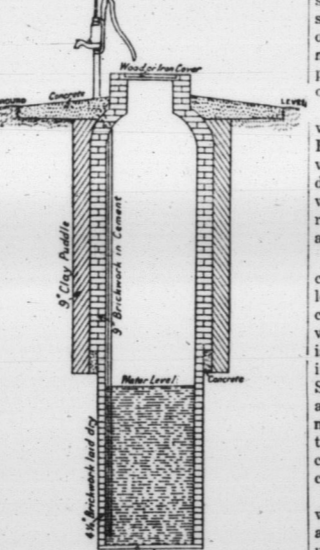
At Butanta, Brazil, there is the most remarkable and repulsive garden in the world. It is a seven hundred acres in extent, and is a garden of venomous serpents, which are maintained for purely scientific purposes. There are laboratories which produce serums for the cure and prevention of the effects of snake-bite. The snakes are kept in a small park in order that their habits and the best methods of escaping their attacks may be studied.

WELLS AND THEIR CONSTRUCTION

Special Care Should be Exercised to Ensure a Pure and Abundant Supply of Water For Home Use.

Apart from municipal water works, our water supply is secured almost entirely from wells. Especially is this true on the farms and in the smaller villages. It is of primary importance that the well be properly constructed, that it be situated far from any source of possible pollution, and that the water be of satisfactory quality.

The safest form of well is the deep, or bored, well, carried down through



earth and rock beyond any danger of surface water and tightly and securely lined with piping. The piping is carried up to a tight-joint with a

pump or other elevating means at the top. Around this shaft, a concrete platform should be laid of at least eight feet diameter, sloping away from the well, to prevent surplus water, or water from melting snow, working down alongside the pipe.

The shallow, or dug, well is much more common. This type is usually the most carelessly constructed and the source of much danger to health. Such a well, however, may be constructed in a manner as to be safe, in so far as the collecting and containing of the water supply is concerned. It must be understood that no well can possibly be satisfactory if the source of the water supply is polluted.

The illustration herewith shows a well which is as safe as possible. For the upper nine feet the well is watertight, the sloping platform diverts the surplus water from the well, and the top of the wall is carried above the level and provided with an absolutely tight cover.

The pump has been placed on the concrete platform, on the ground level, the pipe is embedded in the concrete and carried to the bottom of the well where the water is coldest. There is considerable advantage in not having the pump at the top of the well. Surplus water is continually spilled, and, as more or less mud, barnyard manure, etc., is carried on the boots of those using the well, this water becomes polluted and seeps through the cover.

In many summer resorts, defective wells are the cause of much sickness, and many cases of typhoid among urban residents have been traced to this source. Too much care cannot be exercised in seeing that drinking water—one of the essentials of life—is thoroughly protected.

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, 235 Woodbine Ave., Toronto.

Mrs. E. C.:—1. To preserve strawberries in the sunshine, place in a preserving kettle in layers as many pounds of sugar as of sound ripe berries, which have been hulled and washed, and when the juice is drawn out a little set it over the fire to cook; let cook twenty minutes after boiling begins. Turn the berries into earthen or enameled plates, cover each with a pane of glass to fit tightly over the top and place in the sun. Let stand two days, stirring two or three times each day. At the end of this time place in sterilized jars, seal and store them without reheating. 2. To give the hair a dry shampoo take one cupful of cornmeal, warm it in the oven, add one-quarter cupful salt to it, mix well, then holding the head over a cloth or newspaper rub the meal into the scalp. Brush thoroughly.

Peggy:—1. Red Cross Societies are an outgrowth of the convention of Geneva, Switzerland, held in 1864. 2. Yes, the South Pole was discovered by Roald Amundsen, the Norwegian explorer, who reached it on December 16, 1911. Robert Falcon Scott, the English naval officer and explorer, reached the South Pole on January 18, 1912, only to find the Norwegian flag and records left by Amundsen. Scott perished on the return trip.

Mrs. S. T.:—1. Aphids or plant lice and black fly are the insects injuring your currants and gooseberries. They usually attack the new leaves and tips. Frequent spraying with some of the tobacco preparations or whale oil soap has a good effect. If the fruit is not more than half formed put in the soap or tobacco solution one tablespoonful from a polished surface rub with a soft cloth wet in essence of peppermint until spot disappears; then polish with flannel. This will not injure the most highly polished wood. 2. For a holder to remove boiling pots from the stove or in draining vegetables, use an ordinary cotton flannel mitt with palm and thumb padded with cotton and a loop of tape sewed to the wrist for a hanger. The protection it gives the back of the hand is obnoxious. 3. I am told that a paste of molasses and flour will remove grass stains from colored fabrics without effecting the color. To remove grass stains from white flannel trousers, dissolve one cupful washing soda in two cupfuls water, heat the solution, make a suds of naphtha soap, immerse the stain and rub gently. Ammonia and water or alcohol are also good if the stains are fresh. 4. A faded black silk dress may be cleaned by the use of a weak solution of coffee water. Restore the lustre by careful rubbing with a soft silk handkerchief and do not wet the silk too much. 5. By all means write to your hostess within two or three days after your return home. Just write an easy chatty letter about things in general. Be sure to tell your hostess how much you enjoyed visiting her.

O. W. G.:—1. To remove white spots from a polished surface rub with a soft cloth wet in essence of peppermint until spot disappears; then polish with flannel. This will not injure the most highly polished wood. 2. For a holder to remove boiling pots from the stove or in draining vegetables, use an ordinary cotton flannel mitt with palm and thumb padded with cotton and a loop of tape sewed to the wrist for a hanger. The protection it gives the back of the hand is obnoxious. 3. I am told that a paste of molasses and flour will remove grass stains from colored fabrics without effecting the color. To remove grass stains from white flannel trousers, dissolve one cupful washing soda in two cupfuls water, heat the solution, make a suds of naphtha soap, immerse the stain and rub gently. Ammonia and water or alcohol are also good if the stains are fresh. 4. A faded black silk dress may be cleaned by the use of a weak solution of coffee water. Restore the lustre by careful rubbing with a soft silk handkerchief and do not wet the silk too much. 5. By all means write to your hostess within two or three days after your return home. Just write an easy chatty letter about things in general. Be sure to tell your hostess how much you enjoyed visiting her.

Whipping is likely to send his hot blood from his heart to his head, deluging his sensitive brain and driving him to a frenzy or blinding him with fear.

When he is old enough to set up in business for himself he should be taught the horse alphabet—the halter, bit, harness, the words that mean "come," "go on," "stop," "back" and the feeling of pleasure under the owner's hand. These should all be familiar from colthood on. Horses whose education is begun early will always develop a good character. They will never be balky, scary, nor will they be biters, kickers or have a tendency to run away.

Some horses will become frightened and will kick when given a dry-straw bedding. This probably means that at one time he was hurt with a pitchfork. He isn't wicked but nervous. Teach him that there is no danger.

Make the horse understand what you want him to do. Kind words and caressing touches will improve both his mind and his temper. You will never fail in this way unless you delay the beginning too long.

When he is afraid of harness, padding, or machines it is not affection—it is serious business with him. Flogging will not remove it. Convince him by talking that he is wrong and then you will cure him.

Flatulent colic may be caused by change in food, too much succulent and easily fermented food, as green clover, etc. It is indicated by uneasiness, stamping, pawing, rolling, etc., with continuous pain of varying intensity. Bloating soon occurs, more noticeable on the right side.

Drench with 2 to 3 oz. oil of turpentine in a pint of raw linseed oil, and if necessary repeat in 2 hours. Give rectal injections of warm soapy water. If pain be excessive give drench of 1½ oz. each of laudanum, sweet spirits of nitre and tincture of belladonna in a pint of water. Repeat in 2 hours if necessary.

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Health

The Value of Fruit Acids.

Many persons are afraid of fruits because of the acids which they think they contain. Professor Bunge, of Basle, has shown that the acids of fruit are valuable as nutrients, a given weight of the acids of lemons, apples, or grapes—citric, malic, or tartaric—being equal in nutritive value to one-half the quantity of starch or sugar.

Acids are valuable as disinfectants to the stomach, thus correcting certain disease processes. Only those suffering from gastric ulcer or chronic catarrh of the stomach or intestines need avoid acid fruits, and even in such cases fruits may gradually be introduced into the diet, providing proper curative measures are adopted.

Fruit acids increase intestinal activity, and thus relieve constipation. They are extremely valuable for persons subject to biliousness, coated tongue, gallstones, chronic rheumatism, Bright's disease and gout. The acids of fruits become alkalies after digestion and oxidation, hence do not produce an acid state of the blood, as do mineral acids.

The great quantity of apples usually found in most parts of the country renders it an easy matter to secure an abundant supply of fruit acid in the form of canned apple juice, or sweet cider. Apples should be selected, washed and made into clear juice, which may easily be canned in glass jars or jugs at a very small expense. Half a pint of fresh apple juice (unfermented) taken a half hour before each meal and on going to bed at night is an excellent remedy for "biliousness" and constipation.

Acid fruits of all kinds should enter more freely into the average bill of fare. The nutritive value of fruits is small, but the value of fruit acids for purifying the stomach and alimentary canal and increasing the activity of the kidneys and liver gives to this class of foods a high value.

How To Purify Water.

Water, which looks so harmless and tastes all right while it is going down, and seems so refreshing, may, however, contain the deadliest germs of disease.

In a big city the water supply is regularly inspected by bacteriologists, people trained in the special work of testing the purity of the water. Therefore the danger of using the water out of the tap is not great. When special pollution occurs the public is supposed to be notified at once by the authorities, so that they may take precautions.

In the country or in small cities, where the water is not regularly inspected and where there is any uncertainty regarding its purity, it is always advisable to use a good deal of caution. Personal protection becomes necessary.

The water should be either boiled or filtered or chemically purified with chlorinated lime.

Reliable filters are easily obtainable. For household use there are excellent filters, which render the water practically free from dangerous organisms. Those that are made of porous earthenware, which can be taken from its place and cleansed by boiling, and thus can be used indefinitely, are particularly good.

Whether or not the water you drink is clean may mean whether you live or die.

WHEN IS A GLASS FULL?

How You Can Place Various Objects in a Glass "Full" of Water.

Why is it that when a pail of water is brimming full, one can put a fish of a pound weight into it, and yet it will not overflow?

A very ancient conundrum; and the answer, of course, is that such a thing isn't possible.

Nevertheless, you can do some very surprising "stunts" in much the same line with a glassful or a cupful of water. You may fill the receptacle to the very brim, and yet put quite a lot of junk of one kind or another into it without making it overflow.

It is necessary, however, to place the glass on a table that is perfectly horizontal. And the water must be poured into it, slowly and carefully, in such a way as to avoid wetting the edge.

Then you can drop a pin into it, point first, without causing it to overflow. You can drop several pins, two or three at a time. In fact, if you do it right, you can drop sixty or eighty ordinary pins into the glass, and still the water will not trickle over the edge.

The reason why is simply that the edge is not wet, and on this account it is possible literally to pile up the water perceptibly higher than the level of the brim.

The same thing can be done with tacks or with coins.

Put up more food this year than ever when packing for winter use.

Clean up the old coffee grinder, or buy a new one, and grind your own corn meal for griddle cakes, muffins and bread. If you do not like bread made of corn meal alone, use some wheat flour with it. Since home ground corn meal does not keep long, it is better to use whole corn by the bushel and grind for meal as needed.

The Doings of the Duffs.



RIGHT THIS WAY—I'LL GUESS YOUR WEIGHT WITHIN THREE POUNDS—I'LL BET THE LADY WEIGHS MORE THAN THE LITTLE BOY.

SAY HELEN, YOU HAD BETTER GO AHEAD AND GO HOME. I'M GOING OVER TO BUY A PAIR OF SHOES.

WELL, DON'T BE LONG.

NOW HELEN, LET'S MEASURE—I WANT TO SEE HOW MUCH SHORTER I AM THAN YOU.

WHY TOM, I REALLY BELIEVE YOU ARE GETTING TALLER.

I GUESS THERE ARE SHORTER GUNS THAN ME IN THIS WORLD!