

## 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 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. 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—G. L. L.:—(1) I would like to learn a little about pit silos. I think they have a great many advantages and would like to try one. State how the gas trouble is overcome, and how the digging and plastering are done.

(2) Have we not been cautioned to provide drainage for the inside of the silo to prevent actual accumulation of liquid. How can this be done in a water-tight pit?

(3) Is there any simple way of removing the silage from a pit silo.

Answer:—(1) Lowering a light into the silo will soon discover the presence of gas, since if it is present the light will go out immediately. The gas is heavier than air; hence, if you throw in a couple of feet of coarse blocks or rocks there will be room for the gas to settle at the bottom of the silo and not occupy the volume where the silage rests.

As to the digging and plastering, in digging a pit, the dirt can be thrown out to a depth of six or eight feet, but it is best to throw it out to a depth of about five feet and then true up and plaster the walls. Otherwise it will be necessary to build a scaffolding inside the silo. Care should be taken not to dig out too far, so that there will be holes or uneven places in the walls of the silo. It is best to leave three or four inches at east to be removed when the walls are finally true.

After you have excavated about five or six feet and have the walls true, they should be plastered with a good cement mortar. The first coat can be put on about a half an inch thick, and should be made of one part cement and three parts clean sand, and plastered right on the dirt walls. If the

weather is rather hot and the walls have dried out considerably, it would be best to sprinkle them so that they will be moist when the cement is put on. As it is desirable to have this cement three-quarters of an inch to one inch thick on the walls it would perhaps require three coats to do this, as not more than one-quarter of an inch can be put on at a time after the first coat. After the first coat has been put on, it will probably be possible to follow with the second coat, since the first sets rapidly, but the second coat will require time to set.

(2) There are two ways of getting rid of the moisture in the bottom of the pit silo. The first is to run a pipe from the bottom of the silo up to the ground level, and have it connected with a small pump. If moisture gathers in the bottom of the silo it can be pumped out at intervals. The second means of procuring good drainage is to arrange for a small drain pipe to run from the lowest point in the pit silo and connect with some outside drain. Before it is time to put the silage in, open this drain pipe and allow the water to drain out. After the silo is thoroughly drained close the pipe by driving a close fitting plug in the end of it. This will prevent the entrance of air.

(3) The hoist which was erected for getting out the dirt when building the silo can be used for taking out silage. A box with a capacity of about 10 bushels of silage is sometimes used. This box is provided with two 8-inch wheels under one end, and the other end has handles, so that it is possible to use this in the same way that a wheelbarrow is used. After the silage is used down to some distance, a horse or a gasoline engine can be used as a source of power to run this hoist.

## Poultry

In poultry raising the farmer has an advantage over others in the wide range he can give his fowls.

The hen may be a machine, but few of us ever learn how to run it right. Never hold duck eggs long. They depreciate in quality more rapidly than hen's eggs.

One nice thing about brooders is that you can put two in one house and they won't fight.

Early chicks will not thrive in a cold, open coop; it is an impossibility to do not experiment any further with it.

The second brood of goslings usually need more care and more feed than the first ones, as the grass is apt to be so tough by the time they are hatched that it is hard for them to bite it off.

Goslings do not need feed until they are 24 to 36 hours old, when they should be fed any of the mashers recommended for chickens or ducklings, or a mash or dough of two-thirds shorts (middlings) and one-third cornmeal, which can be made equal parts shorts and cornmeal, and five per cent. of beef scrap added after six weeks.

A humid atmosphere in the egg chamber of the incubator is one of the first essentials to the hatching of strong, healthy chickens.

After the breeding season is over, roosters are worse than a useless encumbrance. They are a positive injury to the quality of the eggs.

Chicks should be left in incubators for 48 hours after hatching.

You cannot expect clean eggs from unclean nests; and clean eggs bring a premium.

Clean drinking water and plenty of it is one of the prime essentials to success in poultry.

The artificial incubation of eggs dates back to the early Egyptians, who used ovens heated with fermenting manure.

Eggs all of one color are preferred to those of mixed colors. Uniformity in size is also a matter of importance in marketing.

## Horse Sense

The symptoms of ring-bone are generally irregular lameness followed by constant lameness with a bony enlargement, partially or completely surrounding the coronet or pastern.

The best treatment is rest, then blister with 2 drams each of biniodine of mercury and cantharides mixed with 2 ounces vasoline, repeat in about two weeks. If this fails to cure have joint filled and blistered.

As the heavy spring work comes on, the work teams should be fed and cared for in the most careful way.

To increase the efficiency of the farm team means dollars in the pocket of the farmer.

The best way to feed for efficiency is to cut the hay, sprinkle it with water and mix the ground grain ration with it.

This ration is to be fed in the morning; at noon, feed whole grain; at night, give the cut hay and ground ration, and a little long hay in the mangers for the horses to pick at if they want it.

The hay can be soaked from one feeding to the next if desired. For old horses this is a good plan.

Docking or cutting off the tails of horses is a cruelty that lasts through life. They can never, after this cruel operation, brush off the flies and mosquitoes that make their life every summer a torment.

At Dominion Experiment Farms the cost of feeding colts rising one year old was found to average 10.6 cents per day, for colts coming two years old 9.33 cents, and for coming three-year-olds 6.08 cents. The total cost up to three years old was \$71.98.

"If we dwell on life's hindrances, we may be blind to its possibilities." Get out of doors. People who live much in the open live longer and more healthfully and more brightly, all other things equal. The season is here when most of us can be out of doors much of our spare time.

## The Dairy

Cows that freshened last fall and are producing a pound of butter fat a day in Spring are doing well.

The ideal milk supply is one derived from healthy animals cared for by members of the family supplied. Under such conditions the methods of production and handling as well as the age of the milk are known, the milk is not handled by successive individuals who may contaminate it and it is safe from either the addition or subtraction of various materials. However, such a supply is generally impossible under present day conditions, particularly in cities and towns and the trade in milk is now about as complex as the trade in many other lines.

Skim-milk has all the protein of the new milk, the muscle and tissue builder.

Supply the fat with flaxseed jelly, at a less cost than the cream in new milk.

The calves will begin to eat bright clover hay at two weeks of age. Give them little bright locks of clover hay every day. Give them what they will eat clean.

The strainer has never been made that would take a bad smell out of milk. Keep it out by marinating to the odor with your painful as soon as you get it. That's the only sure way.

A bleating calf within sound of the mother will worry more milk out of her than you can feed in. If you possibly can, put the calf so far away that the cow won't hear it. If you can't, make that calf so comfortable that it will not be bawling all the time.

Camphor on Formosa.

The camphor production of the island of Formosa is one of Japan's monopolies. The present area of camphor afforestation is 10,650 acres, and some of the trees are said to be from 500 to 1000 years old. During the next few years the area will probably be greatly extended.

Way of the Great.

Great men do much for others and take it out in posthumous fame.

There is a lot of money in the early lambs if they are kept growing from the start. Oats and wheat bran will keep them growing fast.

Keep the ewes up to full milk flow by good feeding.

Arrange the lamb creep where the lambs can go for extra feed. Coax them to eat all they will as early as possible.

A small quantity only should be put in the trough so they will eat it up clean. Keep it replenished.

A little careful care will enable the flockmaster to keep a fresh supply of grain in the trough.

Separate the ewes and their lambs from the main flock. A hurdle can be used for this purpose.

The ewes with lambs should be fed stronger than the ewes that have not yet had their lambs.

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There are two grave periods in the life of the potato crop from the disease control standpoint. This first is before the crop is planted; the second is about the time the plants are making a good growth and extends up until maturity.

Enormous losses are suffered by the potato growers, all of which are easily avoided by the exercising of a little care and time. It is so easy to treat all potato seeds that most men fail to do it properly because the method looks so simple.

Potato scab, for instance, is very widely distributed. It may easily be controlled by using the formalin method or the corrosive sublimate treatment. Formalin may be purchased at any drug store and should be used at the rate of one pint of formalin to 30 gallons of water. Place the potatoes in a gunny sack and soak in the formalin solution for two hours, then spread the seed out on the floor to dry before cutting. All sacks, machinery, baskets, knives and whatever else touches the seed should always be disinfected.

However, I prefer the corrosive sublimate treatment, as this not only controls scab but also controls the disease commonly called Rhizoctonia, which has become quite prevalent in many potato growing sections. This treatment is quite simple and inexpensive. Four ounces of corrosive sublimate (which can be purchased at any drug store) should be dissolved in two gallons of hot water, after which enough water should be added to bring the mixture up to 30 gallons. This material should be placed in wooden vessels as it will destroy iron or tin. Lower the potatoes into the vessel before cutting and allow them to remain for one and one-half hours. This mixture should only be used four times after which it should be thrown away and a new lot made up. It may be advisable to gradually lengthen the time that each lot remains in the mixture, after the first. Corrosive sublimate is a poison and should not be placed where children or animals can get hold of it or drink the mixture. The latter treatment will absolutely control potato scab and Rhizoctonia

## Hogs

If sows are fat when pigs are farrowed keep down the grain ration for the first two weeks.

If kept right, hogs are not apt to have much the matter with them. Good feed, a dry, warm place to stay, and a kind master, and you may leave the hog medicine down at the store.

There is not so much call for very fat pork as there was a few years ago. Sensible, too. The streak of lean ought to be a good thick one.

How much does it cost you to get a pound of pork? Figure on that a little; it will pay.

Not one farmer out of a thousand ever puts his hog on the scales until after he has ceased to be a hog and becomes cold pork. That is why so few really know how much it costs to make pork. But it would pay to weigh or measure feed and let the scales set you right on matters of cost of production.

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## Your Problems

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.

H. K.:—Gardening is of the greatest benefit to children. Not only is the work healthful for the body, but it is a real character builder and mental trainer. There is hardly one of the moral virtues which is not inculcated by gardening. We learn faith as we plant the tiny seeds in the confidence that God will give the increase; we learn that we must do our share when we water, prune and weed; we see the advantage of generosity as we note that the more we cut the flowers the more richly they bloom; we learn patience and perseverance in working for a harvest that is worth while. Then, too, the study of the plants' growth teaches us the great secrets of life, while the artistic sense is awakened and trained by observation of the lines, colors and forms of vegetation. Another advantage of gardening is the sense of responsibility which it engenders, together with the joy of achievement, for the child, feeling that even the tiniest bed is its very own to be filled and planted and cherished, takes a special pride and pleasure in the toil. That reminds you that grown-ups are not playing fair when they let the little farmer fret and plan and work, and then calmly gather the results of his labor without even the courtesy of asking permission, much less offering any thanks or compensation.

E. R. S.:—The moral value of clean sport is admitted by every one who has had anything to do with training boys. There is no cleaner sport than tennis. It puts a player on his honor. Its etiquette requires that the opponent should always have the benefit of the doubt. For the boy who mentions it would be especially valuable. Tennis, I am told, has developed one little fellow into a crack player who has the courage to lose a match rather than lose his respect for himself by accepting a mistaken decision of the umpire.

A. J. B.:—The Boston fern, like all of its tribe, should not get too much sun, but plenty of light. The secret of fern success is in watering. Do not water from the top, but put the pot in a basin or tub of water reaching half way up over night. Do this twice a week. Also wash the leaves off weekly with a little weak soap water.

J. H. L.:—A very hot oven is usually required for pastry. To test it place a spoonful of flour in the oven. This should brown in one minute's time.

M. D.:—1. Long hot baths are depleting. Hot baths for tonic effect should be short and always followed by a cold bath. A short hot bath lasting half a minute or a minute may be taken every morning without injury. The best time to take a sweating bath is before retiring at night. In such cases the bath should be followed by a neutral bath at 92 to 95 degrees F. for fifteen minutes. 2. It is not harmful to eat fruit a half hour before breakfast if one likes it that way. The combinations you mention of acid and sweet fruits, such as oranges and stewed prunes or figs, are wholesome. 3. To pasteurize milk for a child it is not necessary to boil it, but merely to heat it to a temperature of 142-145 degrees and keep it there for at least thirty minutes. If the milk is pasteurized in a bottle or other container which has been placed in a bottle of water, heat the water to 145-148 degrees, so that the milk will be at 142 degrees at least. Boiling temperature is 220 degrees. 4. A person is most susceptible to colds when tired.

WHAT THE WESTERN PEOPLE ARE DOING.

Progress of the Great West Told in a Few Pointed Paragraphs.

The Grand Forks City Council has decided to grant free use of vacant lots in the town for gardening purposes.

In the recent Dominion War Loan, which has just closed, Chilliwack subscribed for bonds to the amount of \$30,700.

An amount not many thousands below \$1,400,000 was subscribed from Victoria to the third Dominion war bond of \$150,000,000.

H. Shotton, Dominion Fisheries Inspector, informs "The Standard-Sentinel" that its informant was in error in the statement that Penanstan, B.C., was open for trout fishing April 1st.

While in Victoria, Dr. A. R. Baker, of Vancouver, outlined the scope and intent of the amendments to the B. C. Dental Act which will be brought before the House during its present session.

April will see the commencement of two military schools of instruction in Victoria, according to announcement made in District Orders, authorized by Col. J. Duff Stuart, the D. O. C.

Of the nine miners who were entombed in the Pueblo mine at White Horse, B.C., several days ago, three have been rescued alive, but there is no hope that any of the others are still living.

At Victoria, J. H. Doyle, of Creston, has been appointed sheriff of Kootenay, in succession to the late S. P. Tuck, who died last September.

Several black fox skins were among a lot of furs purchased lately at Quesnel by fur buyers. \$150 each was paid for some of these skins.

At Vancouver, word has been received of the death of Capt. Jasper A. Winslow, who succumbed to an attack of pneumonia in a French hospital.

Prohibition Persia.

There are no distilleries, breweries or public houses in Persia, and the only intoxicating beverage used is home-made wine.

## FROM SUNSET COAST

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