

Farm Crop Queries



Conducted by Professor Henry G. Bell.

The object of this department is to place at the service of 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.

Question—J. C.: I intend sowing 20 acres of beans and there are 15 acres of the land that were in beans last year and I want to fertilize it with something that will be good for beans. It is heavy clay and the grub worked in it some last year. What would be a good thing to exterminate them? What is the best variety of beans?

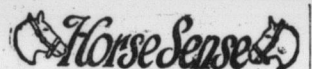
Answer:—This ground should have been plowed at a medium depth this spring. For beans, apply 400 to 600 lbs. per acre of a fertilizer carrying 1 to 2% ammonia, 8 to 10% phosphoric acid and 1% potash. This fertilizer should be worked in in the course of preparation of the soil; that is, it should be evenly distributed on top the plowed land and worked into the seed-bed as the land is disked and harrowed. The tillage of the soil will to a large extent exterminate the white grub, and the addition of fertilizer will make the seed-bed all the more distasteful to this insect, as well as strengthen the growing crop against the attacks of the white grub.

As to the best variety of beans, it is impossible to make recommendations. There are numerous varieties of two large classes; first, the bush beans; second, navy beans. Catalogs of any of the reputable seed houses recommend best varieties to grow.

Question—R. G. K.: What kind of soil is suitable for asparagus? Is it a profitable crop?

Answer:—Any soil that is well drained and is sufficiently open in texture to allow the air to circulate within it, is suitable for the growing of asparagus. Speaking generally, asparagus does best on a sandy loam soil that has been deeply worked and carefully manured and fertilized. The asparagus crop does not begin to bear heavily until the second year. The crop is grown from seed, and the seedlings are set out into the permanent rows late in spring or early in summer. The following spring they begin to bear. A well-prepared asparagus bed will bear abundantly for 20 years, and when in its best bearing season, the crop may be cut twice a week.

Asparagus yields and quality are



The cause of splint is concussion or direct injury. Often no lameness is present. When it is, it will be noticed only when the horse is going faster than a walk, more marked at a jog. The horse stands and walks sound.

If not lame leave alone. If lame apply cold as ice packs or cold water and give a rest for a few days. If this does not cure, apply a blister. Oil cake added to the grain will help to keep horses in condition during the spring work.

If proper care is taken, the mare can safely be used in the ordinary work of the farm up to the time of foaling; but as this time approaches it is important that the load be not heavy nor the pace rapid.

As the labor of a horse becomes heavier, so in the same proportion the food digested is diminished. Very severe work prevents digestion of food from 7 to 25 per cent.

Sometimes a horse gets his foot over the tie rope in the stable; does it several times and you fear he will get into trouble. Just put him in a box stall for a few months and he will forget the trick.

For the average 1,500-pound horse at hard steady work a ration of 20 pounds oats and 15 pounds grain produces about 11,000 units of power, which is about the work such a horse is capable of performing.

A careful daily washing of shoulders and withers with cold water or, better, cold salt water, will cleanse and toughen the skin of the horse. This washing should be continued

greatly improved by top-dressing the asparagus beds with 1000 to 1500 lbs. of a high-grade fertilizer in the spring just before cultivation begins. The fertilizer should carry from 4 to 5% ammonia, 8% phosphoric acid, and 3 to 4% potash. In cultivation, the soil should be worked deep, but far enough from the plants to avoid injuring them.

Question—D. A.: I want to improve an old cut-over pasture that gets dry every summer. The field is just before cultivation begins. The fertilizer should carry from 4 to 5% ammonia, 8% phosphoric acid, and 3 to 4% potash. In cultivation, the soil should be worked deep, but far enough from the plants to avoid injuring them.

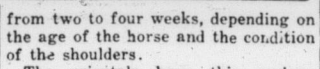
Answer:—Believe your plan to get this land into alfalfa is good. I would not choose corn as a nurse crop. Barley is preferable. Sow about one bushel of barley to the acre and seed with 15 to 20 lbs. of good alfalfa seed per acre. In preparing the ground, after it is plowed give it a dressing of about 5 loads of manure to the acre. At the same time spread about 1,000 lbs. of limestone per acre and work these thoroughly into the soil. When seeding the alfalfa add about 300 lbs. of a fertilizer carrying 2 to 3% ammonia, 6 to 8% phosphoric acid and 1 to 2% potash. Harrow it well into the soil. This available plant-food will help the young alfalfa just like whole milk helps the young calf.

If the alfalfa gets a good start it is about as good a drought resister as you can get. It is excellent stock feed but I fear if you pasture it with heavy stock there will be a danger of their tramping it out.

Alfalfa does not bloom cattle after the dew is off it. Do not allow stock to pasture on it while it is wet with dew.

Question—L. C. P.: What is your opinion in regard to the value of ever-bearing strawberries?

Answer:—Everbearing strawberries are a novelty in much the same sense that Seven Heated Wheat is a novelty. They do not appear to have any great commercial value.



from two to four weeks, depending on the age of the horse and the condition of the shoulders. The orientals have this saying: "One should be slow to buy a chestnut horse, and still slower to sell one that has proved to be a good one." Apply this to horses of every color and we have one of the safest rules ever thought out.



The percentage of tubercular hogs killed in the large packing houses has doubled in the last ten years, due no doubt, to the fact that a concerted effort to control the disease has not been made. Hogs become infected by following tubercular cattle or when fed unsterilized skim-milk or butter-milk from creameries. One tubercular herd of cows in a community supplying milk to a creamery, may infect all the herds of hogs fed on the by-products of the creamery.

Hogs do not usually contract the disease from other tubercular hogs, hence the problem of eradicating the disease in hogs is largely a matter of avoiding unsterilized by-products from creameries, feeding skim-milk from a tubercular herd, allowing the hogs to follow tubercular cattle, or the feeding of uncooked garbage unless it is positively from a safe source.

Mix poultry manure with three times its bulk of dry soil. It is dangerous to use it alone unless the gardener is familiar with it. Burning is likely to result.

HOW TO CARE FOR THE DAIRY COW

Of All Farm Animals the Good Dairy Cow Yields the Greatest Profit.

It has been clearly demonstrated that the good dairy cow is a more economical producer than any other farm animal. Not only does she actually yield more product from a given amount of feed but she does this at the least cost and greatest profit.

Notwithstanding these facts the production of milk and fat from the average cow is exceedingly low, being approximately 3,800 pounds milk and 130 pounds fat per annum, which in value is less than the total cost of production. Nevertheless it has been clearly demonstrated that by better feeding and management this average may be easily increased from 30 to 80 per cent. with an increased cost in feed and labour of only 10 to 20 per cent.; the margin would be largely profit. Such an increase is not only a financial necessity but the patriotic duty of every dairy farmer.

Feeding the Dairy Cow

The milk produced by a dairy cow of proper type is in proportion to feeds consumed plus the reserve of feed stored in the body as fat and flesh. An example of the latter it has been shown that fresh cows may be fed on a maintenance ration or even starved for several days, yet produce milk in fairly large quantities with, however, a proportional decrease of weight and flesh. Again it has been proven that cows of proper type having a store of flesh before calving will not only milk more heavily but also more persistently during the succeeding milking period. It is clear, therefore, that this supply of fat and flesh stored on the dry cow of dairy type will be drawn upon when most needed and be either given off as milk or so take the place of feeds consumed in supplying bodily needs that a larger proportion of these feeds may be utilized for milk production.

The dry cow receives little attention from the majority of dairy farmers. The thin cow at calving is in poor condition to make milk profitably and cannot produce the rugged healthy calf fitted to withstand the many calf ailments. Allow the cow four to ten weeks before freshening. A pound of meal a day during this dry period is worth as much as two or three pounds of meal fed after the cow has freshened. On poor pasture, feed the dry cow green feed, silage or roots and a grain ration composed of two parts of any two of the following meals: bran, ground oats, ground corn, ground barley, plus one part ground oil cake. To the thin cow feed 4 to 7 pounds daily; if the cow is in good flesh, give roughage as needed and 1 to 2 pounds daily of the above-mentioned grain mixture; if the cow is fat withhold the grain, but on the other hand do not sacrifice flesh or lose a thrifty condition.

Feeding at Calving

Feeding the cow at calving requires special care, varying with the individuality of the animal. Be sure that the condition of the bowels is normal. Constipation at this time is apt to induce many troubles such as milk fever, caked udder, etc. After calving give a tepid drink containing a handful of linseed oil meal per pail of water, allow to rest quietly for twelve hours, after which give a warm bran mash, with two bran mash on the second day after calving. Feed a limited supply—6 to 8 pounds—of clean preferably clover. Draw a little milk three or four times daily for the first three days; do not milk dry until after the third day, as such a procedure frequently brings on milk fever. On the fourth day start the dry meal ration consisting of 4 pounds equal parts bran and ground oats. Increase the quantity of grain and strength of the grain mixture to a full grain ration on or about the sixteenth day after calving.

Feeding the Fresh Cow

The feeds consumed by a dairy cow in milk are utilized for two purposes, viz., the manufacture of milk and the maintenance of the body. The cow weighing 1,000 pounds requires the equivalent of 10 pounds clover hay and 10 pounds oat straw or 35 to 40 pounds of mixed pasture grass for maintenance alone. To this must be added the feed to supply energy necessary to manufacture milk. Hence it is evident that the meagre feeding of cows in milk will induce little if any milk flow after the surplus body tissue has been used, while liberal feeding with practically the same maintenance re-

quirements will induce heavy milk production. It is evident that milk produced under the latter conditions will cost much less per gallon.

Rations for the Milk Cow in Stable
The foundation principles of the successful selection of feeds and the feeding of dairy cattle depend upon the palatability, variety, nutrition and ease of digestion, and succulence of the ration given. All these essentials of a well balanced ration for economic production must be considered when raising or purchasing foodstuffs.

The most economical ration must have as a basis cheap but rich nutritious farm grown roughages such as clover or alfalfa hay, ensilage and roots. The liberal feeding of meals is advisable to balance the roughage ration in addition to provide the heavy milking cow with an extra supply of nutrients in a less bulky form.

A pound of grain when the cow is fresh is equivalent to several pounds of grain after the cow has decreased materially her milk flow. Feed 1 pound of meal for every 3 1/2 pounds milk produced; as her lactation period progresses decrease the meal gradually to 1 pound for every five pounds of milk produced. A fair average is 1 to 4. Following are a number of well-balanced daily rations for the 1,000 pound dairy cow suitable to the individual needs of farmers throughout different parts of Canada:

No. 1.—Mixed hay 16 pounds, turnips or mangels 40 pounds, meal mixture composed of bran 4 parts, ground oats 2 parts, ground barley 2 parts, oil cake 1 part, cottonseed meal 1 part. This meal fed at the rate of 1 pound per 3 1/2 pounds of milk produced.

No. 2.—Clover or alfalfa hay 10 pounds, mangels or turnips 30 pounds, oat straw 10 pounds, meal mixture composed of bran 5 parts, ground oats 2 parts, linseed oil meal 3 parts, fed at the rate of 1 pound per 3 1/2 pounds of milk produced.

No. 3.—Clover hay 12 pounds, corn ensilage 30 pounds, meal mixture composed of bran 7 parts, ground oats 7 parts, dried brewers grains 4 parts, cottonseed meal 2 parts, fed at the rate of 1 pound per 3 pounds of milk produced.

No. 4.—Mixed grass hay 10 pounds, oat straw or chaff 10 pounds, mangels or turnips 40 pounds, meal mixture composed of bran 3 parts, ground oats 2 parts, ground flax 2 parts, ground wheat 2 parts, fed at the rate of 1 pound per 3 pounds of milk produced.

No. 5.—Brome hay 10 pounds, clover hay 5 pounds, oat straw or chaff 10 pounds, mangels or turnips 30 pounds, grain mixture composed of ground oats, barley and wheat, equal parts, fed at the rate of 1 pound per 3 pounds of milk produced.

A plentiful supply of clean drinking water and salt is essential for greatest health and production.

Feeding on Pasture

Over large areas of Canada the milk produced on grass will always be the cheapest. Hence the proper care of pasture is most essential. If cattle are allowed on the pasture only after the grass is from 6 to 8 inches in height such pasture will yield most feed during the summer and will be best prepared to withstand drought.

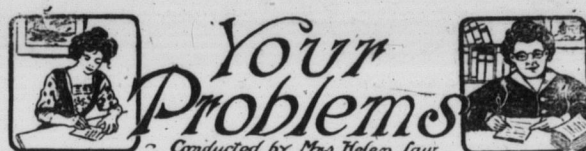
Natural pasture may be supplemented in the spring and fall by sowing a patch of fall rye, or during the summer months by seeding an annual pasture mixture composed of oats and barley or a mixture of oats and clover. The most successful dairymen as a rule feed a limited grain ration even when the cows are on pasture. Bran 3 parts, cottonseed 1 part, or bran 2 parts, ground oats 2 parts, and gluten or ground peas, 1 part, will give excellent results.

Supplementing Pastures

In the shortage of grass provide good soiling crops. Supplements to pasture are peas and oats seeded at different dates, second cut clover, corn and fall turnips fed with tops as pulled. Summer silage, if available, is both superior to and cheaper than peas and oats.

Next to Man.

With the exception of man the mule is the most contrary of animals. A new kitchen utensil binds, crimps and trims pie crusts by a single operation.



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.

"Northland":—1. To brighten the dreary aspect of a northeast bedroom, choose paper of a warm creamy tan shade, and a rug of deep raspberry pink (a Scotch wool square is a good choice), with curtains, cushions, etc., of pink and cream chintz, and have the woodwork painted ivory white. You will have a cheerful room, I am sure. 2. To brighten a shabby carpet, sweep the carpet carefully to remove all the dust, then go over it with a clean house flannel dipped in a pail of warm water, to which a cupful of strong vinegar has been added. The flannel should be wrung as dry as possible before it is applied to the carpet, which must not be more than dampened in the process. Let the carpet dry thoroughly before walking on it. 3. A cork pressed into a bright-colored celluloid thimble and the edges cut off even with the thimble will make a protector for the end of a steel crochet hook. 4. Buttonholes can be strengthened by running two rows of stitching around the edges.

H.S.W.:—1. The origin of the expression, "Getting down to brass tacks," has been explained in various ways. Probably it is derived from the custom of marking yards, feet and fractions of a yard on the edge of the counter in dry goods stores with brass tacks or "brass nails." When the cloth is actually measured the transaction has "got down to brass tacks." The expression therefore would seem to mean greater accuracy. 2. To clean furs: Before putting them away clean some clean fine sand or coarsely ground cornmeal as hot as you can bear your hand in it. Rub it well into the soiled places, then shake it out, and beat and brush the furs till clean.

E. K. M.:—1. The best book I know of is the "Canadian Soldiers' Manual for French and German." The price is 25 cents, and it is 5 1/2 by 3 1/2 inches. Another good book is "French Self Taught," also 25 cents, size 5 1/2 x 2 1/2 inches. 2. Chocolate is a very suitable article of food to send to your soldier boy, as it contains much nourishment in a concentrated form, fat, protein and carbohydrate being present, with very little water.

"Subscriber":—1. Joppa is a seaport on the west coast of Palestine, about forty miles northwest of Jerusalem. 2. Trieste is an important Austrian port on the Adriatic Sea. 3. The area of the German Empire in Europe is 398,780 square miles; in addition, before the war, there were colonies with an approximate area of 1,028,000 square miles.



A bit of powdered charcoal beats most of the so-called bowel remedies that are on the market. Lice, heat and too much food make the June chicken's life a short and painful experience.

Feeding milk a long time in the same dish without washing it, is the cause of a great deal of bowel trouble in the little chicks.

Sometimes it is not the hen which needs darning so much as it is the master, and what he needs is a good mess of interest in his business.

When you "don't understand what is the matter" with the chicks, just try changing their runs. Many times the very earth where they are is foul and full of disease germs.

A dead crow hung up by the heels near the chicken yard is a pretty good hint to the rest of them that they are not welcome guests, and the crows are smart enough to take it, too.

Don't forget to give the poultry an extra allowance of water this warm weather. They may be able to pick up a good share of their living now, but they can not pump water.

Exposure to excessive heat, either in the house or in the run, is fatal, especially to overfat hens.

Poultry is naturally hardy. Supplied with the proper food, confined to well-ventilated, clean and not overcrowded quarters, and kept from freezing, the flock can be continuously kept in good health.

Through ventilation is what is aimed at in the use of open front poultry houses; not an excess of low temperature. If this can be obtained in a moderately warm house, by all means have both.

Boom in Bee-keeping.

England is experiencing a bee-keeping boom. Many persons are keeping bees in order to save sugar by substituting home-produced honey. At present the demand is so great that there are no more hives available and dealers are at their wits end to meet requirements.

Beavers, which had almost disappeared from Manitoba, are now increasing and are found in most of the old settled districts. No killing by private individuals is permitted.



Unless every cross in breeding stands for improvement in the herd, it shows that there is something wrong.

A cow with the ability to make good records is hindered in production if handled by an ignorant herdsmen. We want thoroughbred dairymen as well as highly-bred cows.

Salt, shade and water are essential to the development of a dairy herd. Stagnant water is unfit for the stock. Drain the marshes and ponds or fence the cattle away from them.

Good butter makes the storekeeper your best friend. With June pasture there is every possibility of turning out an attractive product.

Every year the farmer wonders how the pasture is going to hold out. It is a pretty safe guess that it will fall off about August. Be ready for it. Don't overload the pastures.

Do not try to speed up the separator by guess. Men have thought before now that they could do that, but a speed indicator showed that they were not within forty rows of apple trees of being right.

The Telegrapher.

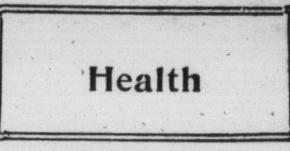
As I was sitting in the wood With violets in my lap, Behold! I heard a telegraph Near by go tap-tap-tap. O'er bush and briar and bubbling brook I followed up the sound, And lo! upon a hollow tree The telegrapher found.

A woodpecker in scarlet cap And black and white surcoat, A sentence to a grub beneath The bark was tapping out. He does not need an instrument His messages to flash, For he's the first inventor of The code of dot and dash.

—Minna Irving.

A Great Remedy

DR. HENDERSON'S Herb Treatment, in tablet form, will cure rheumatism, constipation, asthma, stomach trouble, kidney and liver trouble; three months' treatment with our certified guarantee, for one dollar postpaid. Henderson Herb Co., Dept. W., 173 Spadina Ave., Toronto.



Accidents To Children.

Insects that have crawled into the baby's ear may be suffocated by dropping sweet oil or castor oil into the ear, which after twenty minutes should be washed out by gently syringing with warm water from a fountain syringe, hung one foot above the child's head.

Peas, beans shoe buttons or beads are sometimes put into the ear and nose by adventurous or experimenting children. Now the shoe button or bead will not swell as does the pea or bean, and may often be safely washed out, but if it is causing pain and will not drop out of the ear, or will not be easily blown out, in case of the nose, see your physician at once. He has in his possession just the necessary instruments for its immediate removal.

To Treat Nosebleed.

If the nose bleeds whenever it is cleaned, more than likely there is an ulcer on the septum which will continue to bleed if left untreated. The physician should heal the ulcer, and the child should be taught always to vaseline the nostril before cleansing it.

In case of persistent nosebleed, put the child to bed with the head elevated. Pressure should be put on the blood vessels going to the nose by placing two fingers firmly on the outer angles of the nose on the upper lip. While a helper may put firm pressure at the foot of the nose at the inner angle of each eye.

An ice bag may be placed at the back of the neck and another piece of ice held on the forehead at the root of the nose. As the bleeding begins to stop, as well as during the bleeding, all blowing of the nose is forbidden, as it will only cause the bleeding to start afresh. It sometimes helps to hold a piece of ice in the hands.

Caring for Burns.

Burns and scalds are not at all uncommon with children whose eagerness to explore and desire to investigate often leads them into trouble.

1. The simple reddening of the skin—slight burns and sunburn—simply needs protecting paraffin and is to be covered with sterile gauze.

2. Burns which destroy the outer layer of the skin, producing a blister, are treated much as a wound would be treated. The blister if larger than a half-dollar should be opened near the edge with a needle which has been passed through a flame. The serum should be pressed out and the parts disinfected with an antiseptic solution and then some sort of paraffin preparation, such as those largely used in the base hospitals in the European war zone, may be applied with absorbent cotton. This protects the newly formed tissue cells and prevents destruction by sticking dressings, which often happened in the old method of treating burns.

3. When the tissues are injured in the more severe burns the surrounding flesh is carefully disinfected with Dakin's solution, and the same dressing applied as described for the "blister burns."

Burns may become seriously infected. In that case they require the care of the skilled physician.

If a child's clothes catch on fire he is instantly to be thrown on the floor and any heavy woolen fabric, such as a curtain, table spread, blanket or rug, is to be thrown over him (beginning at the neck) and the flames thus smothered. The clothing is now cut off, and if more than one-third of the body is burned the child should be taken to the hospital for constant care. Great care should be taken in keeping the unburned portion of the body warm, as there is a great tendency for the child to become very cold as he weakens from both the nervous shock and from the absorption of toxins.

FOREST GUARDING IN B.C.

Canada Lost \$9,000,000 by Forest Fires in 1915.

All who have an interest in the welfare of the province will be glad to learn that more attention is to be given by the provincial government to forest protection, says the Vancouver Sun. Though money is scarce it must be found for forest conservation. Canada lost by forest fires in 1916 \$9,000,000, more than six times as much as has been spent on forest protection work. Most of these fires were preventable. In British Columbia, owing to the efficiency of the forest protection service, and to somewhat more favorable weather conditions, the number of fires last year was only about half that of the previous year. Yet the loss was very considerable and a better protection service would have meant fewer fires and less fire loss. Money devoted to the extension of forest protection is well spent indeed. The presence of a protective force, the construction of trails, and lookout towers connected to headquarters by telephone, are merely for the purpose of dealing efficiently with the fires that break out. A more important measure is to reduce the quantity of dry material on the forest floor, reducing the danger of fire, and diminishing the heat of fires that do start, so that less injury is done to the trees and soil.

Never allow fresh meat to remain in paper; it absorbs the juice.

The Doings of the Duffs.

