

# Soils and Crops

By Agronomist.

This Department is for the use of our farm readers who want the advice of an expert on any question regarding soil, seed, crops, etc. If your question is of sufficient general interest, it will be answered through this column. If stamped and addressed envelope is enclosed with your letter, a complete answer will be mailed to you. Address Agronomist, care of Wilson Publishing Co., Ltd., 73 Adelaide St. W., Toronto.

## Crops for Dairy Farms.

The milk producer must not forget that he is a farmer as well as a dairyman, and plan to bring every acre of his farm under a remunerative system of crop production. Possibilities of increasing profits along this line depend upon the amount of study and thought that is put into the work. So long as one is satisfied with a yield of six tons of silage corn, thirty bushels of oats and one ton of hay to the acre the cost of his supply of feed will eat largely into the profits of the business.

In the first place, a proper crop rotation must be selected and such a choice of crops, and methods of growing them, made as shall tend to place every acre of the farm in a productive crop, and give suitable variety for feeding.

In planning crop rotations it is safer to avoid growing crops of doubtful value that do not fit well into a fixed rotation. A few standard crops properly handled will prove more satisfactory than too wide a variety. Clover, alfalfa, corn and a small grain crop make an efficient and simple rotation. Some dairy farmers grow catch crops for soiling purposes, but the better way is to carry over silage for summer feeding and depend upon such field crops as oats, peas, green corn and alfalfa for soiling. If we can get the soil favorable for the growth of clover, alfalfa, corn and small grain crops, it is about all we can do toward producing a balanced ration for dairy cattle and building up the soil without resorting to outside sources of supply.

By growing, corn, wheat, clover, or clover and timothy mixed, a four-year rotation, and seeding a part of the farm with alfalfa, we have a nearly ideal system of crop growing for a dairy farm. Some dairy farmers omit timothy and practice a three-year rotation, which is all right if they have a field of alfalfa to depend on in case the clover fails; but as a general proposition it pays to allow the land to remain in grass two years. Clover is a more active soil builder, but the timothy thickens the sod and furnishes more humus. And, after all, one is on the safe side when he has a few acres of mixed meadow to depend upon in case the clover fails.

In harvesting and feeding these crops a large part of the corn crop should go into the silo and be fed out along with the clover or alfalfa hay. Such a roughage ration, supplemented with reasonable quantities of purchased concentrates, will produce milk at a minimum cost and maintain the breeding stock and young cattle in condition to breed regularly and command good prices. Whether one should grow the wheat crop or oats and peas in the rotation is a debatable question. It depends upon the conditions under which one is working and how far one has to haul the wheat to market. The cutting and harvesting of hay crops has a great deal to do with the feeding value. We may cut our clover, alfalfa or timothy too soon or too late to secure maximum feeding value. One of the advantages of seeding timothy with clover is that of properly curing the mixed hay. There is less trouble in cutting, curing and

handling the clover crop if it contains one-fifth timothy. The breeder who has good pasture land is fortunate, although it is possible to establish pasture by seeding with a variety of good grasses that will yield feed throughout the season. Such a pasture will require several years to become well established. The weeds and undesirable growths must be kept down and grass seeds sown on wet and thin spots. Where the seeding is thin and run out in spots, lime and acid phosphate thoroughly disked into the soil, will encourage some of the desirable grasses to make a good stand. It is usually cheaper and better to seed the grasses several times than to apply all of the seed at one time.

Alfalfa helps out wonderfully in balancing up the rations. It will succeed almost anywhere that red clover will. Lime, drainage and humus will overcome most of the troubles and put the land in good shape for alfalfa. With a few acres of alfalfa on his farm the dairy farmer has made a long step forward.

One should strive to improve the standard feed crops before he looks about for new crops to take their places in the rations and the crop rotations. There is as much difference in the quality and value of home-grown foods as in the feeds of commerce, and it should be his aim to grow, harvest and feed these crops in the best condition. The crops should be grown on the farm to produce a class of feed to balance up the ration are the very ones needed to build soil fertility. In short, we must provide some kind of succulent food, reduce protein costs and increase the fertility of the soil. If we are to build up the soil and improve the rations we must grow better clover, alfalfa, corn, small grain and grasses.

This brings up another question. Our home-grown feeds are too bulky to produce the best results. There is a limit to the capacity of an animal to digest and assimilate bulky feeds. If we choke the machine we cut down its capacity. To reach the maximum digestive and assimilative capacity of the cows they must be furnished with proper quantities of fats, carbohydrates and protein and in about the proper proportions. The excessive amount of dry matter contained in all the standard feed crops renders it impossible without the use of protein concentrates, like cottonseed meal, linseed oil meal and gluten feeds, to reach the digestive and assimilative capacity of the cows and enable them to produce a maximum flow of milk.

On breeding farms where cows are fed for advanced registry records it is desirable to grow root crops, such as mangels, carrots and sugar beets, to furnish succulence and variety to the rations. Experienced feeders prize these crops highly because they act as a stimulant to the cow's digestive system and make it possible for her to consume more grain feed than is the case when her ration contains too much dry matter. A small plot of ground will suffice to produce all the roots needed for feeding for advanced registry records, and save trouble and expense of buying roots to feed when needed.

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## The Dairy

### Curing a Cow by Wire.

Doctor Taylor, the veterinarian, was cranking his car to go to the country, when his wife appeared at the door and called: "Telephone!" "I've got a sick cow," said Frank Jensen when the veterinarian answered the call. "She's most too weak to stand. She has quit chewing her cud, breathes hard and seems to have a high fever. Can't you come out?" "Notice anything wrong when she walks?" asked the veterinarian. "She walks with a straddling gait, and is stiff in her hindquarters. When she stands she puts her left foot way back."

"How does the milk look?" "Yellowish blue in color and stringy. It curdles soon after it is drawn. She doesn't give much out of the left side; that side of her udder is red and swollen."

"From the symptoms you give the cow has garget," said the veterinarian. "You can treat it yourself." "But where'd she get it?" interrupted Frank. "None of the other cows has it."

"That's hard to say," was the reply. "It might have come from a blow on the udder, or maybe you skipped a milking. Careless milking will cause it. It might have come from the cow lying with her udder on a cold floor, or from hurrying her when her udder was distended, or from exposure to wet, cold weather, or a sudden change from a bulky, laxative ration to a more concentrated one. Keeping a cow too fat may cause it."

"What shall I do for her?" "Reduce the grain to one-third the usual amount. Give her about a pound of epsom salts. Get some nitrate of potassium and a small graduated measure from your druggist and give a half ounce of the nitrate in the drinking water twice a day."

"Shall I do anything to the udder?" "Milk it carefully and bathe with hot water several times a day. Rub it with olive oil containing three per cent gum camphor several times daily. Do not use any strong liniment on the udder; and avoid any of the possible causes of the trouble—cold floors, etc."

"I almost forgot to ask about using the milk," said Frank. "Don't use it. Milk the left half of the udder into a separate pail and bury the milk. The right side probably is not affected. Generally not more than half of the udder is affected at one time. Disinfect the barn with coal-tar disinfectants, so the infection won't spread to the other cows."

A week later Frank's cow was again doing her share of work at the milk pail. Except for Frank's careful observation which caught the trouble in time and for the veterinarian's help, the trouble might have developed into a case of chronic garget.

## When Saving Becomes a Loss

Many farmers throughout the country are not erecting necessary buildings because price of lumber and shingles has advanced. In every section of the country in late fall and early winter implements are left in the field where they were last used. This refers to plows, harrows, seeders, binders, mowers and other agricultural implements. They lie in the field exposed to wind, rain and snow and remain exposed to these conditions until they are again required for use. The hardwood used in the manufacture of wooden parts soon shows the result of this mistreatment, as also the iron parts in a lesser degree, and in a few years these implements are eligible candidates for the junk pile.

Comes a time these implements must be replaced, and the price of one new binder would cover the cost of a building large enough to protect and prolong the life of all necessary working equipment for the farm. Doing without that shed looks like saving money, but it certainly does not save implements. Implements cost good money. Implements and tools destroyed through lack of care is equivalent to destroying money. Commence to save or save more. Build a shed for the implements. Do not make it necessary to have the junk man call on you too frequently. It does not pay.

Good Advice. An Irishman presented himself before a magistrate to seek advice. "Sor," he said, "I kapes hens in my cellar, but th' wather-pipes is bust an' me hens is all drowned." "Sorry I can't do anything for you," said the magistrate; "you had better apply to the water company." A few days later Pat again appeared. "Well, what now? What did the water-company tell you?" queried the magistrate. "They told me, yer honor," was the reply, "to keep ducks."

# Health Talks

By John B. Huber, AM.M.D.

Dr. Huber will answer all signed letters pertaining to Health. If your question is of general interest it will be answered through these columns; if not, it will be answered personally if stamped, addressed envelope is enclosed. Dr. Huber will not prescribe for individual cases or make diagnosis. Address Dr. John B. Huber, M.D., care of Wilson Publishing Co., 73 Adelaide St. West, Toronto

## Sore Throat.

Besides the throat (pharynx) the soft palate, tonsils and vocal chords are generally included in any inflammation. When this is acute, the cause lies generally in exposure to cold and wet, especially in weak folk, those of sedentary habits or who have a tendency to tuberculosis, gout or rheumatism or other systemic diseases. And there is septic sore throat, of germ origin. Such a sufferer has pain on swallowing, a sensation of dryness or as if a foreign body were stuck in the throat, tenderness, hoarseness and oftentimes impairment of the senses of taste, smell and hearing. The pharynx is reddened beyond the natural and angry looking; and the back of the mouth is swollen. Such a sufferer should be treated as for acute bronchitis—rest in bed, a hot mustard foot bath, a purge, an ice bag to the throat, small pieces of ice dissolved on the tongue. Local applications within the throat and such medicines as acetic, quinine and sodium salicylate must be prescribed by the family doctor.

Chronic sore throat (chronic pharyngeal catarrh) may follow a neglected acute Pharyngitis, or be due to continual and excessive straining of the voice (Clergymen's sore throat), to the influence of such constitutional disease as I have mentioned or to the constant inhalation of irritant vapors, as in certain dangerous trades. Many such cases are part and parcel of catarrh of the upper air passages, from the nostrils down to the bronchial tubes; and when the latter are reached we speak of bronchitis. There is hoarseness, the voice is easily fatigued and may be entirely lost; there is hacking cough with pain or swallowing. Here again there is a sensation of a foreign body in the throat; and thick,

tenacious, maybe blood-stained mucus, is expelled.

People prone to the diseases and constitutional conditions mentioned should especially guard against the development of sore throat. The proper use of the voice, saline laxatives when necessary (say a teaspoonful of epsom salts in a tumblerful of water piping hot on rising), tonics or other medication, with local applications, by the physician, with treatment of the underlying factor (rheumatism, tuberculosis or other disease) are the right measures. Where nasal catarrh exists no cure can be hoped for until that organ is attended to. And many a case of chronic pharyngitis gets well of itself as soon as the nasal catarrh has been cured.

## Questions and Answers.

I have what I think is called hammer-toe. That is, the tip of my great toe is spread out too much in proportion to the other parts of my toe. Is there any way of correcting this?

Answer—Hammer toe is the doubling up of the toe by reason of a contraction of certain sinews. Slight cases give little trouble but sometimes the toe feels as though it were being twisted painfully, its full length, no matter what shoe is worn. The toe, however, is not generally sore to the touch. A good surgeon may be able to relieve the trouble. Is the sugar treatment for tuberculosis beneficial to any appreciable extent? Would any harmful results follow its use? Answer—Although the treatment would do no harm, I am myself skeptical as to its efficacy. I am mailing you further information regarding the treatment of tuberculosis.

## Sprays for Tomatoes.

Experienced tomato growers recommend the use of Bordeaux mixture in about the same manner as used for the potato crop, that is, the first application when the plants are a few inches high and continued at frequent intervals during the growing season.

This treatment is not always successful in controlling point rot, especially when weather conditions are dry and unfavorable for maturing the crop. Bordeaux applied after the development of the disease would be of doubtful efficiency and would

prove objectionable on account of the sediment left on the ripe fruit.

## Fisherman's Luck.

A minister, with two lovely girls, stood entranced by the beauties of a flowing stream. A fisherman happening by, and mistaking the minister's occupation, said: "Ketchin' many pard?" "I am a fisher of men," answered the preacher with dignity. "Well," replied the fisherman, with an admiring glance at the girls, "you sure have the right bait."

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Australia is going to erect a memorial to each Australian division that fought in France, at Pozieres, the junction of Bray and Corbie ridges, in the Hindenburg line near Levergouier, at Butte de Warlencourt, and at Polygon Wood. The war area in France is not going to lack Australian monuments.

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## Poultry

Gradually poultry breeding is becoming more like live stock breeding. It will not be many years until every buyer of a cockerel to be used in the breeding yard will insist on knowing the sire and dam of the cockerel before he buys the bird. The buyer will also want to know how many eggs the dam of the cockerel produced, and how many eggs were produced by the dam of the sire of the cockerel he is buying. Right now many buyers—some of them farmers, too—are demanding to know what's back of the birds they contemplate purchasing before laying down any money. The day of the scrub-rooster in the farm flock has just about passed.

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Fixing Up Earth-Roads. It can be truthfully said that drainage is the chief essential in putting earth roads into proper condition. An old Scotchman, an expert road builder, aptly said that the three requirements of good earth roads are drainage, more drainage, and still more drainage. The roads must not only have good surface drainage but must also have good under-drainage. Surface drainage is secured by proper grading, adequate side ditches, and by keeping the crown of the road properly dragged. Stretches of road that do not dry out quickly must be under-drained by tile.

The drag must be used after each rain, if the best results are to be secured. Don't go on the road while too muddy, let it dry out slightly; it should be wet enough, however, so it will not crumble, but smear. When properly used, the drag brings a thin layer of earth toward the centre of the road which is rolled and packed between the wet periods. If too much crown is secured by dragging, the angle of the drag should be reversed. Getting the earth roads graded, ditches open, well-drained, and properly crowned by dragging is about all that can be done until the people are ready to surface the road with gravel, broken stone or some other surfacing material.

Good Advice. An Irishman presented himself before a magistrate to seek advice. "Sor," he said, "I kapes hens in my cellar, but th' wather-pipes is bust an' me hens is all drowned." "Sorry I can't do anything for you," said the magistrate; "you had better apply to the water company." A few days later Pat again appeared. "Well, what now? What did the water-company tell you?" queried the magistrate. "They told me, yer honor," was the reply, "to keep ducks."

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