

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.

SPRING VS. FALL FRESHENED COWS.

Many farmers take it for granted that to have the cows fresh in the spring, it will make a greater profit come from them than if they came in in the fall. One farmer who thought that way, told me his reason: "The principal thing that appeals to me," he explained, "is because what I get from the cows in the summer, is practically all profit. I do not have to give them much grain. They take care of themselves excepting around milking times, when I then have to get them into the barn, and out the first thing in the morning. I figure the profit that I get in the summer is worth enough to pay for the rest of the year."

We all know that cows, naturally, are apt to do their best in the summer time. Therefore to get the greatest profit from them, in the winter, conditions should be made as near like summer as possible. In the summer they get all of the nice fresh water with no ice in it to make it too cold. How many farms are there that have facilities so that the cows can get the same in the winter? Cows enjoy the nice warm days in the summer, too. Barns therefore should be kept warm and comfortable for them in the winter time. Two cold barns require more feeding of grain, which is expensive; as much of the feed has to go to keep the cattle warm. And they do not give as much either, under such conditions. Light is another important thing to consider. Plenty of windows to let as much of the sunlight into the tie-up is important if we are trying to imitate summer. Dark, damp stables make cows uneasy and discontented, and also help to breed germs of different diseases.

When the cows are at pasture in the summer, they get juicy, green, succulent feed. Such a ration may be given in a way by means of a silo. If the silage is put in before the frosts kill it green and succulent feed is assured, for the winter time. All farmers who have fed silage can testify as to the great goodness which cows have for it.

So to get the best results from winter-kept cows, it can be seen that by making conditions as near as possible as the cows get in the summer, the greatest profits are obtained. While it is true that the expense of grain and feed is much less for cows at pasture in the summer, perhaps I feel that on the long run, cows that freshen in the fall, pay the best. Unless the pasture is extremely good, along the last part of the summer it begins to get short and the grass dries up and without getting feed in the barn the cows drop off. How many farmers are there that consider it, and fail to feed their cows? And by the time the cows are taken in, in fall, they have dropped off in their milk flow and cannot be gotten back

Horse Sense

Bright oat straw is wholesome winter roughage for idle horses. Many good feeders figure that every ton of good oat straw which the horses will eat saves half a ton or more of valuable hay. Some of the very best pure-bred draft mares in the country are fed good oat straw as their exclusive roughage during the winter months. The only other feed they receive is about three or four pounds of grain a day to each mare, as may seem necessary to keep the digestive system working properly.

The fact that straw is a heat-producing feed is of importance because the best feed for producing warmth to idle horses is also the cheapest. Idle work horses require only sufficient grain to maintain them in good flesh condition; all the rest of their feed may well consist of cheap roughage, provided it is clean, bright and free from injurious substances. By feeding more bright straw and just enough grain to keep their digestive systems in good order the work horses can be wintered so cheaply as to greatly reduce the cost of maintenance, and this means considerable reduction in the cost of operating a large farm where several work teams are kept during the year.

What Causes Stunting?
Stunting of young animals is a serious matter. Steps to prevent stunting really should begin before the animal is born. To that end it is necessary and profitable to feed the pregnant animal well, so that she may properly nourish her young and have plenty of milk for it when it is born. Calves are stunted by feeding milk

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FUNNY FOLD-UPS

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MY MOTHER SAYS SHE THINKS I MAY TURN OUT AN ACROBAT SOME DAY.

FOLD HERE

IF I WERE ONLY TWINS YOU'D SEE THE FAMOUS TEAM OF 'ME AND ME'



Poultry

The fowls and eggs from a pure-bred flock of hens will bring more money on account of their uniformity. One of our most conservative poultrymen says that if all farmers would keep pure-bred poultry, the business would be doubled in a few years and that we would still be getting good prices for our products.

Many people are getting tired of eating pork and old dairy cows, and are becoming eaters of chickens, mutton and veal, thus increasing the possibilities of the sheep-and-poultry business. When poultry can eat and thrive on all kinds of foods and produce good results, it is very good evidence that they are constitutionally strong.

The Silo, The Lighthouse of the Farm.
During the last few years stock-raisers have floundered around quite a bit and occasionally one has hit a rock and gone down. Fortunately, every stock-raiser can have a lighthouse that will keep him, as well as an occasional neighbor, off the rocks and guide the way to better farming and bigger profits. That lighthouse is the silo.

There is no longer any doubt that silos point the way to safe farming. Thousands of satisfied users have killed all the doubt. In more ways than one a well-filled silo keeps stock-raisers off the rocks. The use of silage cheapens beef, milk, mutton and wool by cutting down the amount of grain needed. Silage is valuable for lambs in the feed lot, and for wintering the breeding ewes. Silos are the greatest food savers known to stock-raisers. An acre of corn fodder put into a silo has more food value than an acre of corn. There are several reasons for this. One is that when corn is put into the silo none of it is wasted. The whole plant except the root goes in; when it comes out it is so palatable that in cattle, horses and sheep eat it with a relish. Another economy is that the corn is stored at a time when it contains the greatest amount of nutrients.

Every person with a dozen cows should have a silo. The diameter should be determined by the number of animals. For twelve cows, make silo ten feet wide and thirty feet high; fifteen cows, twelve feet wide and twenty-six feet high; twenty

PIGS, PORK AND PATRIOTISM

By A. M. Porter.

If we are to continue to provide meat for foreign people as well as our own, every farmer must put forth his best effort to produce more hogs. A glance at the prices of pork on the leading markets in this country and you can plainly see that we are slaughtering, consuming at home, and exporting more pork than we are producing. Some will say that the feed is too high to feed to the hogs, but the price has more than doubled in the past few years and the farmer can make many of the waste feeds on the farm profitable by raising hogs. You will find many communities in this province where the number of hogs have decreased during the past year. What has this caused? Look at the market prices of pork and the question is answered. These prices are high because we need more pork and now rather than any other time the farmer should be able to raise hogs profitably.

We can increase the amount of pork fats much more easily than we can increase the amount of vegetable fat along without fats as a food and because of this need, the farmer should endeavor to produce more fats by the quickest method. This method is by the increased hog production. Nearly all the farmers have a few dairy cows at least, and they are in an excellent position to raise pigs because of the skim-milk, buttermilk and other dairy products which can be

used by them in the making of valuable meat foods. Pory always finds ready sale on all the markets because the packers have found many ways of placing it on the market in attractive forms with excellent keeping qualities. I doubt if you can find any other meat from which so many products are manufactured. A large percentage of all the meat and meat products manufactured in Canada is derived from the hogs. All buyers are very anxious to get hogs because their firm badly needs them in order to keep the markets supplied with their manufactured meat products.

The quickest and easiest way of augmenting the meat supply next to the raising of poultry is by raising hogs. The hog is the most important animal for the farmer to raise for meat and money. He requires less labor, less equipment, less capital, makes greater gains per one hundred pounds of food and reproduces himself faster and in greater numbers than any other domestic animal. As a consumer of by-products on the farm the hog has no rival. No other animal on the farm equals the hog in its fat-storing tendency. The most satisfactory meat for shipping on trains or wagons for long distances is pork. I think in many ways the farmer will find that the hog is one of his most profitable domestic animals that he is raising for the market on the farm.

Two years ago a farmer known to the writer, built a silo which cost \$55. He began to keep account to see whether it returned him any profit. His cream checks for one month amounted to \$29.31 more than the same month the year before. He was milking the same cows and they had been milked "about the same length of time after freshening. The feed was the same except that the corn was from the silo instead of from a feed bin. At that rate the silo paid for itself in two months.

The filling season, when kernels are dented, is close at hand. Every stock-raiser should build a silo, for the stock farm without a silo is only half a farm. The silo is the one place where \$1.50 corn realizes \$3 a bushel when fed.

On the Upper Branches.
The choicest fruit grows on the upper branches. When we want to see the product of the farm, we must look high up, among the limbs that are nearest to the pure air and the sunshine.

It is the man who thinks big thoughts, plans great enterprises, and carries them out who makes the real success in his chosen line. Never until a man's heart is filled with love for his work can he be truly happy and reach life's finest prizes. Working hard will not do it; investing a great deal of money will not do it; nothing but the investment of self will win. Top-branch farming is a thing of the best possible study, the deepest possible thought, the most careful planning, backed up by good workmanship.

Millions of men have gone across the stage of life and left not a single mark to show they ever lived. Their names are forgotten. They plowed, they sowed, they gathered into barns; but where are they? What have they left to make the world any better or to prove that they were worthy the place they occupied? Not a single thing. Their lives were pale fruit, growing down out of sight, under a burden of leaves and branches.

This need not be so. The call of to-day is for the very best there is in you—not here and there a man, but all the world need for big men on the farm is urgent. It will never be fully met until all men everywhere appreciate to the full the dignity of good farming, and put all there is in them of mind, soul, body, and heart into everything they do, from hoeing a hill of corn to directing a great farm operation.

How to Prevent Cabbage Heads From Splitting.
If cabbages are grown on a rich, loamy soil, the growth is often so rapid that the heads split late in the summer. It is especially the case with early cabbages or with late varieties that are started early. On that account many gardeners delay setting out cabbage plants until late in the season.

It often happens that a fine patch of early cabbages cannot readily be disposed of at once. Usually they are ruined by splitting. The trouble can be prevented without much effort. Take hold of the cabbage below the head with both hands and give it a slight jerk sufficient to loosen part of the feeding roots, but not strong enough to pull the plant away from its hole in the soil. In that way the flow of food materials to the plant can be almost stopped, although sufficient moisture to keep it solid, fresh and green will continue to rise. Then the heads may be left in the garden until they are needed. If you cut off the heads of early cabbages instead of pulling them up by the roots, the stems will throw out new leaves that you can use for salads or give to the hens.

GOOD HEALTH QUESTION BOX

By Andrew F. Currier, M.D.

Dr. Currier 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. Currier will not prescribe for individual cases or make diagnosis. Address Dr. Andrew F. Currier, care of Wilson Publishing Co., 73 Adelaide St. West, Toronto.

Medicines for Kidney Diseases.
If one has disease in the stomach or intestines he generally knows it and can localize it, but if he has disease in his kidneys, aside from aching and pains in the loins which are by no means sure indicators of kidney disease, there is nothing which can tell him, if he is without special information on such subjects, that these organs are diseased.

To be sure the urine is an important indication but it says little to the uninitiated. Its appearance has comparatively little significance, in fact when it is as clear as spring water and irrefragable to the ordinary judgment it may have come from hopelessly diseased kidneys, while that which is bad smelling and suspicious to the uninitiated may have come from kidneys that are normal.

Many of the physical changes in the urine take place in the bladder hence if you are influenced by the appearance of the urine as to your choice of medicine you may be taking what may be harmful to the kidneys and be of no use to the bladder.

Albumen and casts are the most important things found in the urine but they cannot be seen or found except by chemical and microscopic examination. Blood and pus may often be seen in the urine but how can you tell whether they came from the bladder or kidney, as they may come from either.

Gallons of urine are sometimes passed daily, now are you going to tell that it indicates diabetes with sugar or diabetes without sugar, or cold, or disease of the nervous system, and how are you going to decide what remedy you should take? When newspapers advertise Smith's Kidney Cure, Jones' Safe Remedy and Brown's Kidney Pills, they are offering you something that is harmless and worthless and a fraud, or something which may be good if you know how to use it, but upon which you are not able to decide by your unaided judgment.

There are many societies for the prevention of mischief and wrong doing, there should be one to prevent people from using kidney medicines they know nothing about. It is possible to influence the kidneys by medicines for all the blood in the body passes through them every few minutes and it is the blood which carries medicinal substances taken by mouth and eliminated by the kidneys.

Two kidneys are usually provided for this purpose though many are able to get along with one while it remains in good condition. Medicines will not replace a kidney which has been destroyed or removed, nor will they destroy kidney tissues which have been so injured they cannot filter out water and waste matters from the blood.

Medicines can sometimes spur up inactive kidneys, check those which are doing too much, and coax along those which are diseased and imperfect but not too much so. If this cannot be done, the wastes and poisons which the kidneys should eliminate, are retained and life is destroyed by them.

Water is one of the best kidney medicines, especially when combined with sodium, potassium, lithium or other minerals. Mineral water is constantly used with advantage by those who have kidney disease. Cold will stimulate the kidneys, so will blistering and cupping. Alcohol and digitalis, acting through the heart increase the blood flow through the kidneys and so increase the flow of urine.

Buchu, bear berry, parsley, broom, juniper and many other drugs will influence the kidneys and are often present in patent medicines. In general it is unsafe for an individual to decide for himself whether his kidneys are diseased, and how they are diseased, still less therefore is it safe or prudent to decide upon your kind of medicine which would suit your case.

QUESTIONS AND ANSWERS.
Mrs. J. M. T.—Will bananas cause increase of weight? I wish to put on flesh.
Answer—Bananas, when fresh and ripe, form one of the most healthful and useful articles of food. They also have a greater food value than any other fruit because of the very large element of starch which they contain.

England's Day
O swift to act when honor bade,
Though circled by thy guardian sea,
England, all generous hearts are glad
Tribute to pay to thee!
Strong in the armour of thy name,
So long the hope of lands oppressed,
Quick to avenge a deed of shame,
The offspring of thy breast.

Spoke as became their mother's sons:
They blenched not for the terror night,
But to the thunder of thy guns,
Glarly went forth to die.
Year after year they paid their toll
To freedom in their freemen's blood;
Unshaken, thy heroic soul
The hosts of hell withstand.

Year after year thy great ships keep
Through wind and storm, through
mist and murk,
Secure the hearts of the deep,
Where sullen murderers lurk,
England, our Mother of old days,
Our Sister of the days to be,
Take from their grateful lips
praise
Our strong sons give to thee!

Taming the Lightning Stroke
If there was ever a time when it is important to protect buildings from lightning, that time is now. High prices for grain, live stock and all other farm products make protection imperative, to say nothing about the patriotic impulse that should prompt us all to save food-stuffs that are so badly needed by our Country and our Allies.

Another important reason for protection is that it will cost less this year than it has ever before, if you consider the increase in the value of a building to be protected. Buildings made of wood, stone or brick should always be protected by lightning-rods, for those building materials are not good carriers of electricity; they offer resistance to electricity. The lightning stroke, always occurs where the electricity has been obstructed; when it breaks through, that is the stroke. If you equip your building with proper carriers, and therefore prevent the electricity from becoming obstructed, you need never fear lightning.

However, it is not only necessary to have a lightning-rod of high quality, carefully made, but it is highly important that it be properly applied by a man who understands the principles of lightning control. Even if one is expert at the mechanical work involved, and the job apparently is simple, it is best to secure the services of a professional. What you want is protection from lightning, not lightning-rods. There is no use having rods put upon your building unless they are the right kind and are properly put on; and you want to know that they are put

on right. Then you can forget all about lightning dangers and read your paper while the storm rages outside.
Keeping Biennial Vegetables for Seed.
By the term "biennial" vegetables is meant one which takes two seasons to produce seed, writes the Dominion Horticulturist in a leaflet giving advice on the "Selection and Wintering of Biennial Vegetables for Seed," which can be had free from the Publications Branch, Department of Agriculture, Ottawa. The vegetables must be stored over the first winter and replanted for seed production the following spring. Some well known vegetables of this class are beets, cabbage, carrots, celery, parsnips, salsify and turnips. Seed from these can easily be grown in Canada if the vegetables to be so used are kept in good condition over the winter. Unless a rigid selection is made, each year, of specimens which are true to type, it will not be long before a larger proportion of the crop will not be true to type; hence great care should be taken to select well-shaped, medium-sized roots, typical of the variety of beets, carrots, parsnips, salsify and turnips, firm-headed cabbage true to type, firm stalked and disease-resistant plants of celery and firm, shapely onion bulbs. If this is done and varieties are kept far enough from others so that they will not cross the crop, Canadian grown seed should compare favorably with imported seed in regard to purity, as it does in other characteristics.

The methods of wintering vegetables for seed will vary in different parts of Canada, but in most places it will be necessary to give them some protection. When possible, it is best to store them in a frost-proof cellar. But, if necessary, the vegetables may be stored outside, both in small and in large quantities, except in the case of onions, which must be kept dry, and stored in a cool place where there is little or no frost.

OPPORTUNITIES AND JEAN

"Whenever," Agatha declared, "I see that advertisement in the street-car signs that says, 'Opportunities are equal,' I get so mad that I want to fight! They aren't equal, and never will be so long as the world lasts. Why do people want to lie like that?"

"They certainly are not equal," Jean agreed. "Some people—like me—have so many more than others." Agatha caught her breath. "O Jean, what a brute you must think me!" she cried. "I'm ashamed of myself clear through—your lying here all day with all that music shut up in your fingers. Only—that just proves my contention; you're the biggest illustration of it I know—you lying here, and Eloise Sharp, who never could learn to play in a thousand years—really play, with anything except her fingers, I mean—going to the conservatory."

"Mith Jean! Mith Jean!" The voice was full of excitement and importance—Tommy Bailey's voice by every token. A moment later Tommy himself appeared in the doorway, panting and breathless.

"Mith Jean, Pearl's broke a jar of huckleberry all over herhoff, and she says what will take it out? It's a thait, Mith Jean. It runned down all her dretch, like he'd thpilled ink!" "Dear me, Tommy, you'll have to build a fence about Pearl, won't you? But, tell your mother not to worry—just to pour boiling water over it. Wait a minute; I'll write it for you."

She picked up a pad and pencil from the table; also a couple of pink peppermints.

"There you are, Mr. Postman, and there's your postage stamp," she told him. "Sure you won't lose it?" "Thure, I won't," said Tommy in tones that were somewhat blurred by the peppermint in his mouth.

"Did you—" Agatha began, but the telephone broke in. It was close beside Jean's hand, and she was answering at once.

"Oh, that's too bad! But don't worry, Rene dear; try a hot iron over blotting paper. If that doesn't work I'll tell you something else. But I think it will. It won't hurt the fabric in the least."

As she hung up the telephone, Agatha looked at her whimsically. "Do you run an emergency station, Jean?"

"I'm beginning to believe that I do," Jean responded. "Promise me to tell? Do you see that card index there? It has remedies for half the accidents under the sun. I get people to tell me valuable ones, or to try those I already know. It began with Tommy one morning when Pearl upset a bowl of soup. Pearl can furnish an accident a day, easily; in fact, she may be said to have started me on my career. It's such fun! You don't know how I'm getting acquainted down on Finney Street. The little club I used to have has extended all over the neighborhood."

"There are people," Agatha declared, "who would find opportunities in Sahara." "Why, of course!" Jean agreed laughing.

GUNS IN HOSPITAL

Refitting Necessary After a Few Thousand Rounds Are Fired
Guns are comparatively short-lived. So great is the wear and tear on the modern gun of fairly large size that after a few hundred or few thousand rounds, as the case may be, it must be sent to the gun hospital at the rear, there to be refitted for further service.

While it is impossible to give definite figures that would apply to all kinds of guns, it is generally held that a field gun of 3-inch bore—such as the French "75" or the German "77"—is capable of firing between 5,000 and 6,000 rounds before it requires mechanical attention. But the life of a gun decreases rapidly with the increase of bore; so that in the case of a 6-inch gun, the life is perhaps 2,500 rounds, while for a 12-inch it is perhaps not greater than 250 rounds.

Of the very large guns, such as the German 17-inch howitzers used early in the war to reduce Liege and Antwerp, it was said at the time that the life was about 25 accurate shots and 25 additional, but somewhat faulty shots before each gun had to be refitted.

Among other things, the recoil mechanism—particularly the springs—of the guns has to be adjusted and renewed occasionally.

Further instructions. Jacob Johnson was one of those persons who always think other people can't be left to attend to anything. They give so many directions that muddle simply follows on their heels.

Well, Jacob was going on a business trip to Scotland, and he asked his brother to look after his pet parrot.

All the way north in the train he worried about the bird, and when he reached Edinburgh, rushed straight off to the post office to send a wire. "Don't forget to feed the parrot." Early the next morning he was awakened by the boots at his hotel, who brought his reply, also sent by telegraph: "Have fed him, but he is hungry again. What shall I do now?"