

Soils and Crops

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.

Care of Trees After Winter Injury.

Last winter will long be remembered by fruit growers in the province of Ontario and Quebec as one of the hardest on fruit trees of any that has been experienced.

While peach trees were killed back to some extent in Niagara Peninsula, it was among the apple trees and in the colder districts where the greatest losses occurred.

The forms the winter injury took were root killing, splitting of the bark at the base of the tree, sometimes known as "cork rot," bark splitting on the trunk, trunk killing, crotch injury and killing back of the top. The fruit and leaf buds on the trees were often killed also. While a large number of trees died during 1918, there were many more which went into this winter in a very weakened condition and may yet die. By the time pruning is begun it should be possible to tell any trees which are going to die this winter or which have additional dead wood on them, and it will be possible to prune them intelligently. There will be many cases of crotch injury, however, where almost all of the bark and cambium were killed around the base of large limbs and where the latter meet in the head of the tree. Trees injured in this way are very unsatisfactory as they may linger for years in a weakened condition and of little value and eventually will break down if they do not die before doing so. The orchard should be gone over carefully this winter and examined for such injury. When pruning the orchard, the dead bark should be removed from the dead patches, and the wounds painted and kept painted with white lead paint. If much of the bark and cambium in the main crotches are dead, the future of the tree should be considered as very doubtful. If many of the trees in the orchard are affected in this way and the trees are wide enough apart to permit of planting a young tree half way between, without too much shading from the older trees, it would be well to plan to do this next spring. Good crops may be obtained from these injured trees for some years, and, in the meantime, the young trees will be coming into bearing. Where land is available, however, the setting of an orchard elsewhere is desirable. Other trees may be planted successfully where trees were killed last winter, although it has been said that young trees will not do well where an older tree has been. Sometimes,

they do not, but it is usually due to the fact that the older trees that were left overshadowed them. Where they have sufficient light they should succeed.

When re-planting where another tree has been, fill the hole with good surface soil from midway between the rows rather than use the same soil as was thrown out. A rapid way of removing old dead trees is by the use of dynamite.—Experimental Farms Note.

Marketing at the Farm.

Some farmers living on main traveled roads take advantage of the trade that is continually passing in order to dispose of produce raised on the farm. To many, however, the highway in front with its incessant humming of wheels and purring of engines is like a lost opportunity—lost because it is never used. It was driving through southwestern Ontario on an endeavor to locate pears, peaches and plums for canning. Many products were on sale by the roadside but there was seldom any notice calling attention to the stuff for sale. As a consequence, we stopped at a large number of these roadside stands before we found what we were after. Short hands do not please the motorist, he wants to know what he is stopping for before he stops.

In our journey, we found only one man who knew how to advertise for motor trade and he was a Greek. Reduced to brass tacks, the devices he used were two A-shaped signboards, one placed about seven rods each side of the selling tent. A placard for "pears," "plums," "peaches," etc., had been printed. The top of each placard had two eyelets punched in and by these, the placards were hung on the signboard. Then above each signboard, a Canadian Ensign was waving. From observation, something moving will attract attention more quickly than will a still object. The signboards were placed so that the driver had time to slow down before coming to the tent. The products being offered for sale were in a good-sized tent, with a table across the front. The tent was neatly decorated, the attendant was very pleasing and the products were prime and packed to stand a long motor trip. Really, from observation and counting the number of people who stopped, this Greek had hit upon a combination which attracted the trade.

Sheep Notes

Ewes that are strong and in good flesh when winter sets in can be carried until near lambing time without much grain. They will need, however, a supply of good clover hay and a few roots, about three pounds per head each day. If a little grain is fed for about four weeks before they lamb, one pound per head each day of mixed oats and bran, they will be in good condition when lambing comes. These feeds stimulate the milk flow, and their use before and after lambing is advisable.

The present price of such feeds is extremely high, but even at the price they should be used, as this results will more than pay. It has been found by experience that lambs coming from ewes which had not been grain-fed previous to lambing were weaker and required more attention than those from grain-fed ewes, also the ewes fed grain are better milkers, which is a big factor in the growth and development of the lambs.

It is best to separate the ewes and put them in a small pen one week before the lambs are due, as it gives the ewes a chance to get acquainted with their new surroundings. It also prevents them from being injured by overcrowding and they seldom refuse to mother their lambs when they are separated from the flock.

If the ewe is not shorn until after lambing, all tags of wool should be trimmed from around the udder before and immediately after lambing. If this is neglected, the lambs sometimes will suck the tags and swallow them, often causing balls of wool to form in the stomach.

Soon after lambing the ewe should be given water with the chill removed. Feed a light grain ration for a couple of days to avoid udder trouble, but the

ewe should receive all the roughage she needs. Just as soon as the weather is warm enough in the spring all the sheep and lambs should be dipped to free them from lice and ticks.

After the sheep have been turned out to pasture they will not require much attention except to see that the pasture is not overstocked and that they have plenty of fresh water and salt.

Horse Sense

Alfalfa hay is a very successful food for work horses or growing colts, but it cannot be considered first-class hay for idle horses, when fed liberally. Alfalfa hay is rich in protein, a muscle-forming nutrient which idle horses are not so much in need of. Common red clover hay can be fed quite successfully as this contains less protein. Again, in feeding alfalfa hay to idle horses, one ought to consider the grain ration. A horse would work in better with alfalfa than oats, being a carbonaceous food. For idle horses or horses that do light work I would expect to get satisfactory results by feeding alfalfa hay and oat straw, or good wheat straw, once a day, with a grain ration of oats or a ration of corn and oats.

It can be stated in a general way that too much protein in a ration is not good for the health of any animal. An excess of protein does effect the kidneys. It has been noted in the west where liberal and continuous feeding of alfalfa has been practiced that it is not as good for the animal as a combination of foods, some of which contain less protein.

Pointers on Seeding Clover.

One of the farmers conducting illustration work for the Commission of Conservation in Dundas county has the following to say in regard to the thickness of seeding clover.

"I think it pays well when seeding to clover to sow at least 8 lbs. of clover seed per acre. We find a good mixture to be 3 lbs. of red clover, 2 lbs. of white, 2 lbs. of alfalfa and 6 lbs. timothy. I find also that it pays well to sow down all grain crops, even if we do not need or wish to have it for hay, as the clover tends to keep down weeds that would otherwise start after harvest. It also furnishes a large amount of pasture and when ploughed down supplies the soil with humus."

The Dairy

For cows there is very little difference in the food value of sugar beets and mangold-wurzel. The sugar beets contain more carbohydrates and sugar, about twice as much as the mangold, otherwise the analysis is practically the same. Sugar beets contain 1.1 per cent. protein, 10.2 per cent. carbohydrates, and 0.1 per cent. of fat, while mangolds contain 1.1 per cent. of protein, 5.4 per cent. carbohydrates, and 0.1 per cent. of fat. Of course, the extra amount of sugar in the sugar beets is a valuable food but the most of our rations for dairy cows contain carbohydrates, starch and sugar, in excess. Starch is practically as valuable for a food as sugar, but it is not quite so digestible, but the digestive tract of the cow can readily change the starch into sugar, so in figuring a ration we would consider starch just as valuable as sugar. This being the case, as long as we have in most rations an excess of carbohydrates, we would not be willing to pay very much for the extra amount of sugar in the sugar beets over and above that in mangolds.

One great value of any kind of roots in a ration for dairy cows is that they furnish a succulent food which is very appetizing, and keeps the digestive tract of the animal in good condition and enables her to digest and assimilate economically large amounts of other foods in the ration. Mangolds are just as valuable as sugar beets in this succulence, as far as this succulence is concerned, as sugar beets.

Further, the churches are coming to realize the importance of providing special training for their rural ministers. It is being recognized that the most effective and lasting method of getting in touch with men and of serving them as the worthy minister desires to do, is to be able to help them with their everyday problems. To do this, the rural minister, in addition to his regular training, should make a study of the conditions under which his parishioners live. He would do well to know enough about their means of making a livelihood to be able to suggest real improvements. Then he can take an understanding lead in rural social betterment.

Rural sociology is now a recognized subject on the curriculum of at least one Canadian Agricultural College. Canadian Theological colleges might well avail themselves of graduates of such a college, so that rural ministers might be fully trained for all-round rural leadership.—A.D.

Poultry

Ducks and Gardens. I tried out a labor-saving practice in my garden by taking advantage of ducks as an aid to weed-killing and insect-destruction. I divided the garden into two parts—one in which to pasture the ducks, the other to be duckless.

In the duck garden, which is enclosed with poultry netting, garden crops grown which were not easily injured by ducklings—such crops as sugar corn, potatoes, tomatoes, squash, cucumbers, rhubarb, and cane and bush fruits. The ducklings devoured innumerable harmful insects and were of material help clearing the garden of multitudes of tender sprouting weeds. Of course, if the garden is very small, but few ducks could be safely confined in the enclosure. Even though ducks do not scratch, the continual tramping of many webbed feet over a small area would injure small and delicate plants.

Children's Beauty.

Keeping the children out in the fresh air, clothed in a sensible manner and occupied with a healthful play, will keep them robust and plant the seeds of physical confidence and beauty so deep and firmly that they will flourish and yield the flawless blossom every mother secretly hopes to see in the face of her child.

Things That Pay in the Life of a Farm Woman

Whenever a rural community undertakes to aid the farm women in their problems, that community enters the limelight. When a certain little village which I know planned to establish a co-operative laundry, people took notice. We read of it in magazines published half way across the continent. Several years after, being near enough to the locality to make a visit, I determined to satisfy my curiosity. My trip took me through a country showing good soil, good crops, good farming methods. There was every evidence that farming was carried on in a manner that paid.

The town was an example of what co-operation should mean. A conspicuous building and sign attracted me and I entered a Farmers' Co-operative Store. My eye failed to miss any article that a farmer would require for family needs.

"Does the store pay?" I asked the competent-looking manager. "Yes, it pays well," he replied. "The shareholders received a ten per cent. dividend last year and we feel that we served our patrons well."

Down at the end of the street stood a modern, delightfully planned and equipped consolidated school building. I admired its architecture and the spirit of the people who had developed it. I delighted in the thought that here the young folks from town and farms might mingle and learn from each other. But the mesmerism of the place had attacked my nerves and I said to myself, "Does this too pay?" I had stopped in front of the building, and a passing farmer said pleasantly, "Do you like the looks of our school?" His voice was pardonably proud.

"Yes, the looks and the idea back of it. Are you satisfied with it?" I asked in return. "Satisfied and more!" he said warmly. "We realize that the farm boys and girls need trained hands and minds for their future work. Farming conditions are changing and require business methods. You see, 'he continued confidentially, 'they've got to have schooling to make farming pay."

I found the creamery in a rather unusual place for a creamery—right on Main Street—but so sanitary, so well designed and attractive that it was a credit to this farm town.

Training Rural Leaders.

Life in the beautiful country isn't always beautiful. Poets and other writers have decanted on the wonders and attractions of living "far from the madding crowd" and people who dwell in towns and cities have been duped into thinking that social problems, peculiar to rural life, do not exist. During recent years, that strange, continent-wide migration from the farms to the cities has made thoughtful people curious and then anxious. So it has gradually come about that the science of rural sociology is steadily developing from infancy to lusty youth and is receiving a place on the curricula of some of our colleges.

Further, the churches are coming to realize the importance of providing special training for their rural ministers. It is being recognized that the most effective and lasting method of getting in touch with men and of serving them as the worthy minister desires to do, is to be able to help them with their everyday problems. To do this, the rural minister, in addition to his regular training, should make a study of the conditions under which his parishioners live. He would do well to know enough about their means of making a livelihood to be able to suggest real improvements. Then he can take an understanding lead in rural social betterment.

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Value of Farm Bookkeeping.

"Your Farmers' Account Book is a great idea to encourage farmers to know more about their business. Wherever farmers keep records of their business, if nothing more than the expense incurred, it seems to promote thrift. I have been dealing with the farmers 23 years and have always encouraged them along this line. I have a small farm and take much pleasure in knowing what the farm is producing each year and comparing one year's results with another. I will use your book now, since it is simpler and easier to refer to than my own method."

Thus writes J. B. Reed, a wholesale and retail flour and feed dealer of North Haverly, Que., to the Commission of Conservation. The Farmers' Account Book referred to above is a simple yet comprehensive set of farm bookkeeping blanks which any farmer may obtain from the Commission of Conservation, Ottawa, by stating in his application how many acres of land he works. If you are, losing money, you want to know where you are losing it before it is too late. If you are making money, you likewise want to know what farm activities are doing it for you, so you can specialize in them.

When cooking rice if a little lemon juice is added it improves the flavor and also keeps it very white.

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.

Muscle Strain and Rupture.

It is necessary to recognize first of all the difference between a strain and a sprain.

A strain is an injury to the tendons or ligaments in the vicinity of a joint.

A strain is the stretching of a tendon or the muscle to which it is attached and which holds it in its proper place.

A strain may be so severe that the tendon or the muscle will break. This is not by any means an insignificant accident for it sometimes means the permanent weakening or lameness of the portion of the body controlled by the muscle or tendon. Thus if the large tendon just above the knee is snapped and then retracts for an inch or two it may prevent the free movement of the foot upward and downward forever after.

I do not mean that it always does this but that this is a possibility and permanent lameness from such a cause is not so very uncommon; permanent lameness is almost sure to happen when a ruptured tendon as the knee is not properly repaired. Accidents of this kind are usually the result of sudden and violent effort, as in jumping or dancing or lifting a heavy weight when unusual force is applied to the part which is injured.

Or if the muscle or tendon is weak or degenerated by age or disease it may result from even a slight exertion of force.

When such an accident occurs there is at once a consciousness that something is broken, perhaps one may almost hear the snap as the fibres which make up the muscle or tendon give way.

Immediately there is a sensation of pain, and it is usually a sharp, cutting pain to which most people react with a cry of distress; with words which are not polite or suitable for printing, when they are inclined to use such language.

Preparing Seed For Spring Sowing.

Now is the time to prepare the supply of seed for the spring sowing. If known and suitable sorts are now being grown on the farm, it is a matter of thorough cleaning and grading the seed in readiness for the spring drive. This is a job which should be given attention now while you can wear a coat and not left until spring when there may not be time to do it properly or, as often happens, it may not be done at all.

Many farmers do not know what variety they are sowing. It makes an astonishing difference in farm profits whether you are sowing a variety suitable to your farm or not. If you do not know what you are sowing, you had better secure a few bushels of some variety that has proved its worth either at Guelph College, or at the Central Experimental Farm, Ottawa. It is a matter of indifference whether the same variety stands at the top at both places. In oats, the "O.A.C. 72" has given good results at Guelph, while the Banner is recommended at Ottawa. In barley, the "O.A.C. 21" is giving splendid satisfaction at Guelph and elsewhere. The leading variety at either place is likely to be much better for you than the unknown or mixed sort you may be sowing. If you have to buy, it might be well for you to consider a change which has been made in the regulations of C.S.G.A. to encourage purchases of registered seed. The following paragraph is taken from a circular issued by the C.S.G.A.:

"Grain harvested from a crop grown from Registered Seed may in turn be registered providing it is up to standard, is not more than three generations removed from 'Elite Stock Seed' and that it has been properly inspected both while growing and while in the sack prior to shipping. Since registered seed brings more per bushel than does ordinary seed, the financial advantage which may be realized from sowing this kind of seed is obvious."

It is immensely worth while to you to sow clean and well graded seed of varieties of proved excellence. Act now, and know what you sow.—F.C.N.

To Keep Baby in Bed.

Much invention has been expended on schemes to keep active babies under the covers of their cribs. One simple plan depends upon an extension of the cotton flannel nightgown, beyond the youngster's toes. The stout tape that draws up the hem may be tied fast to the foot of the crib. Another scheme begins with a broad strip of ticking encircling the mattress at the place where the baby's waist would naturally come. To the strip in the middle of the bed is fastened a broad belt of strong cotton destined to go round the youngster's waist. The belt is hinged to the flat ticking strip by a short length of cloth, so that the child can turn easily, though he is helpless to wriggle either up or down in the bed.

It is time land owners were insisting upon systems of farming which will conserve fertility. Long leases, crop rotation, and feeding good live stock, form a policy of maintaining soil fertility that should be demanded by every land owner in Canada.

If a tendon has been torn from its place of attachment it retracts and if a muscle or a portion of a muscle has been torn the divided fragments retract and a depression will mark the place where the injury occurred, which will be very sensitive to the touch.

Blood-vessels will be broken and more or less blood will ooze into the tissues producing swelling and discoloration of the skin.

As soon as these accidents have occurred nature at once goes to work to repair the damage. An inflammation in the injured tissue occurs, the inflammatory material acting like glue to fasten it in its new position.

If the interval between the two ends of the divided tissue is not too great this material serves to splice them together and after a long time and suitable exercise the injured muscle or tendon may do good service again, but if the interval is large each end will be fastened to its new position and normal motion in the muscle and in the part of the body it controls will be lost.

These injuries demand first of all, absolute rest, nature must be given every possible chance to repair them, and to that end the position of the body must be favorable to the union of the divided fragments.

In some cases the body or a portion of it must be extended, in others it must be bent, the injured portion must be supported by splints or bandages, and at the proper time suitable massage must be used to prevent stiffness.

Antiseptic surgery is now so proficient and safe that it is often possible to cut down to the injured parts and suture the divided tissues in their normal positions.

This is the scientific and proper way to treat such injuries, it means a great saving of time and it will be the method of the future.

Food Control Corner

The Canada Food Board has been informed that field and garden seeds have been removed from the restricted export list of the United States, and that American shippers in future do not require licenses for shipments of seeds coming into the Dominion.

The removal of United States restrictions on flour also will extend to Canada.

"My attention has been drawn to a statement in the press warning the public not to be deceived into buying flatfish in the name of whitefish, as flatfish is cheaper in price," said Capt. Wallace. "Flatfish, however, it is but fair to add, would not be cheaper than whitefish had the prices and profits to fishermen and distributors of flatfish not been fixed by the Canada Food Board on such a scale that a market might be created for them, and in order to introduce them to the Canadian public as a substitute for higher priced fish such as halibut, salmon and whitefish. Flatfish are considered a great delicacy in Great Britain where the sole is especially esteemed, being regarded as the most finely flavored of salt water fish. In Europe sole, brill, plaice and flounder are much higher in price than cod and haddock, or even halibut. In Canada flatfish sell, at the present time, for the same price as cod and haddock, but this is due to the fact that they have hitherto been overlooked in Canada and the Food Board have only recently succeeded in placing them on the market here."

Sic Transit.

Aug., 1914—Nov., 1918.

The day has come, and the day has passed;

And the German's pride bends low.

On sea and on land, in his heart at home,

He sinks 'neath the wide-world blow.

The steel at their backs, his legions retreat—

This great ships sail to their doom;

And the "robber state," with its God of Might,

Goes down in unspilt gloom.

The Empire that seemed like a rain-bow fair

And high on a fortunate wave;

An ill-starred fate and a fendish hand

Have crashed to the dust of a grave;

A grave where no tear of grieving shall fall—

No hymn of honor be sung;

For the fairness was foul, and the brightness false

As the heart of a lying tongue.

So the day has come; and its night has passed,

With its hate, heart wounds, and death;

And this morrow tells of memories dear

Shall cling with our latest breath.

Silent Sea Giants.

A glowing tribute to the "silent sea giants" of the British navy is paid by the Hestia, of Athens, Greece. The journal remarks that there is no plainer truth than the assertion that the British mastery of the seas throughout the war gave victory to the Entente. It adds that this truth is particularly clearly recognized by the Greeks because something similar, although on a comparatively infinitesimal scale, occurred six years ago, when the Greek Fleet ensured the Balkan Allies victory over Turkey. Together with victory, the Hestia concludes, the British navy gave the world liberty, and Mr. Roosevelt was thoroughly right in claiming that the doctrine of the freedom of the seas must be interpreted according to the will of Great Britain.

THE CONSERVATION OF FARM FORCES

Farmers have always been conservators of farm forces—energy, soil fertility, acreage under cultivation, power devoted to the production of crops, everything, in fact, related to the farming business. We have come to a time, however, when it is more than ever necessary to prevent losses and make the most of every form of capacity. Not yet have we come to realize the possibilities within our reach.

One thing I have tried to be insistent upon, and that is that we shall not break ourselves down under the stress of short help and increased demand for farm produce. It is easy to work beyond one's strength. Sometimes you hear it said that work never hurts anybody; that it is fret and care that kill. This is, in my experience, not altogether true. I could count up many men and women who have put every bit of strength and energy into their farm work, so that they have given out and been compelled to leave the farm. Had these men been more moderate in their devotion to every-day tasks, they might have lasted a great deal longer. It is a distinct loss to the nation and the world at large, when a farmer and his wife are forced to step down. So it is a good thing to keep, as far as possible, within the bounds of reason in doing our work.

My boy has always made it a point in his farm operations to get around before sundown, chores all done and everything put in shape for the night. This is wise. It gives him and his men a chance to sit and read or do something else they like to do before bedtime. In the first great force to conserve is strength. It is encouraging to note how much more care our farmer folks are taking of their machinery. We have been charged with being wasteful in this respect. But we are being forced by the exigencies of the times to make our machinery last just as long as we can. Our old mower, for example, which we thought was worn out and fit only for the scrap heap, has been fixed up so that it has stood two years more of service and there is a possibility of still further use. The same way with other tools. By careful usage and shelter we can add much to the life of our machines.

Again, there are savings that can be made by purchasing grain early in car lots. We have probably saved a hundred dollars this year by buying one kind of grain feed months earlier than we have been in the habit of doing. By putting their orders together a number of farmers may buy a car load or more of grain to be divided up as may be needed. Some of our men are in the habit of giving their notes in payment for such shipments, and after paying interest they believe, with no reason for doubt, that they save money.

Then, too, there is the conservation that makes meadows, pastures and tiller land produce more. Many farmers are handicapped by the lack of good pastures. We could keep a number more cows were the brush and stuff cut off. Every bush cut adds so much to the productivity of our lands. The one more cow we may keep is clear gain.—R.H.