

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, seeds, crops, etc. If you are of sufficient general interest, it will be answered through this column. It is 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 "cellar rot", bark splitting on the trunk, trunk blight, 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 these patches, and the wounds painted and kept painted with white lead or some other material 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 overshaded 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 roots rather than use the same soil that is continually passing in order to dispose of produce raised on the farm. To many, however, the high-way in front with its incessant humming of wheels and parking of engines is like a lost opportunity—lost because it is never used. It is now driving through southwestern Ontario in an endeavor to locate peaches, 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 tables 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 device he used were two A-shaped signboards, one placed about seven rods each side of the selling tent. A placard for "peaches", "plums", "peaches", etc., had been printed. The top of each placard had two eyes 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 the results will more than pay. It has been found by experience that lambs coming from ewes which had not been grazed 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. 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 life horses, when fed liberally. Alfalfa hay is rich in protein, a muscle-forming nutrient which life 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 life horses, one ought to consider the grain ration. Corn would work better with alfalfa than oats, being a carbonaceous food. For life 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 affect 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 seeding to clover to sow at least 8 lbs. of clover seed per acre. We find a good mixture to be 8 lbs. of red clover, 2 lbs. alsike, 2 lbs. alfalfa and 6 lbs. timothy. I find also that it pays well to seed down all grain crops, even if we do not need of 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 mangel-wurzel. The sugar beets contain more carbohydrates or sugar, about twice as much as the mangel, 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 mangels 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 for 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 valuable source of energy for a cow is 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 beet over and above that managed. 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. Mangels are just as valuable so far as this succulence is concerned, as sugar beets.

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 destroying. I divided the garden into two parts—one in which to raise the ducks, the other to be garden. In the duck garden, which is enclosed with poultry netting, garden crops were grown which were not easily injured by ducklings—such crops as sugar corn, potatoes, tomatoes, squash, melons, cress, and such like back fruits. The ducklings devoured innumerable harmful insects and were of material help clearing the garden of multitudes of tender sap-sucking weevils. Of course, if the garden is very small, but few ducks could be safely confined in the enclosure. From the ducks do not scratch, the continual tramping of many washed feet over a small area would injure small and delicate plants.

Children's Beauty.

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

Training Rural Leaders.

Life in the beautiful country isn't always beautiful. Peasants and other writers have dwelt 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, old-fashioned 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 acting in such a manner 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.

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 produce results. I will use your book, since the farmer's 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, since it is simpler and easier to refer to than my own method.

Thus writes J. B. Reel, a wholesale and retail dealer and feed dealer of North Hadley, Que., to the Commission of Conservation. The Farmers' Account Book is a very comprehensive set of farm bookkeeping forms 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 looking for a book to use in your book, you can find it before it is too late. If you are making money, you like to want to know what farm activities are doing it for you, so you can specialize in them.

When cooking one of a little women just as she is cooking the flavor and also keep 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 Rapture.

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 rapture of the position of the body controlled by the muscle or tendon. Thus if the large tendon just above the heel is snapped and then retracts for an inch or two it may prevent the free movement of the foot upward and downward forever after. 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. 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, or 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 soils are now being ploughed on the farm, it is a matter of thorough cleaning and grading the seed in readiness for the spring sowing. It is a job which should be given attention now while you can wear a coat and not let it until spring when there may not be time to do it properly, 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, Ontario, 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. 52" has given good results at Guelph, while the "Banner" is superior 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 chance 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 re-sown providing it is up to standard. It 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. Such registered seed has more than 100 bushels divided and didn't pay. So we sold out."

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 footboard 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 instituting 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.

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 their 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 sole, 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 whiting. 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, haddock and flounder are much higher in price than cod and halibut, or even halibut. In Canada flatfish sell at the present time, for the same price as cod and halibut, 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."

Field Root Seeds Grown in Canada

The report of The Dominion Experimental Farms for the year ending March 31st, 1918, obtained at the office of The Publications Branch of the Department of Agriculture at Ottawa, shows that experiments carried on at the Central and other Farms in growing seeds of field roots have proved not only that it is possible to raise heavy crops of these seeds in Canada, but the seed raised is at least equal, if not superior, to that imported from other countries. Besides securing this information the Farms have done a good work in providing quantities of "stock seed" to meet emergency.

Investigations in flux culture provided that part of British Columbia, the southwestern part of Ontario, the valley of the St. Lawrence and the Maritime Provinces, were suitable for fibre flax production.

During the year 3,680 samples of seed were raised, 5,174 samples of potatoes, 1,912 samples of flower seed, 5,198 samples of fruit trees, and 386 samples of other trees and shrubs of superior varieties were sent out for trial at the home of individuals. Special distribution was also made from some of the Farms of tobacco seed, corn and vegetable seeds and strawberry plants. These are briefly some of the many services of the Experimental Farms recorded in the report for the period mentioned. This report constitutes a brief review of the year's progress in the various divisions of work under way at the Central and twenty Branch Farms and Stations.

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Things That Pay in the Life of a Farm Woman

Car after car arrived with shining cans of useful food. One given by the husband, but "check" was farmers with boys and girls taking a job in the back seat. What would me was there were no farm mothers taking advantage of a trip to town to get their laundry and do their shopping. "Is the laundry running today?" I asked the housekeeper. "No," he said lazily, "she's busy; she can't pay so quit."

"What was wrong?" I asked the ex-manager. "Well, different things. Every thing run smoothly at first. Good management, best prices and all that. Later through some one's mistakes or fault's some poor work was done. Several patrons withdrew their work and bought washing machines. Soon expensive repairs were needed and additional machinery. The last few days, patrons' business dwindled and didn't pay. So we sold out."

There is only one person who can solve the farm woman's problems of today and that is herself. Out of the heaps of suggestions and advice she must call out and adjust what will fit her own needs.

If a central laundry will fit those needs then she should have a first-hand in helping to make and keep it a success. The first job is to bring herself to a realization of her own importance as a work worker. To see herself not as a busy harassed woman working against heavy odds but as a part of an army of workers who are engaged in a useful and very necessary task. She must rise above the situation and take a bird's-eye view of things; get a right focus in herself and her relation to her family and the world. She should be ruthless in eliminating any obstacles in the way of a straight pathway to the most important duties: necessary rest and recreation. Labor-saving devices should be given a patient, thorough tryout. Laundry and creamery combined should be one of her greatest helps toward health and happiness, for the farm woman's health and the farm woman's pleasure are things that pay as valuable dividends as the fruit of her labor. This is because health and happiness are not destroyers but builders.—J.B.