

# Soils and Crops

Address communications to Agronomist, 73 Adelaide St. West, Toronto

**Care of Flock at Lambing Time.**  
Breeding ewes should be put in a good thriving condition and kept in that condition throughout the winter up to lambing time, care being taken to have them neither too fat nor too thin. Ewes that carry excessive flesh usually develop a good deal of fat inside, which prevents the proper development of the lamb and very often is the direct cause of so many ills at lambing time. On the other hand, ewes that are too thin have not sufficient nourishment for the proper development of the young, either before or after birth. A good ration for breeding ewes is a mixture of one and one-half parts of oats to one part of good wheat bran, fed at the rate of one-half pound per ewe per day along with two pounds of good roots and two to three pounds of good clover hay per day. Roots should be reduced in the feeding ration one month previous to lambing time.

At weaning time the shepherd should keep a watchful eye on the flock both night and day, very often a little careful attention to the newly born lambs means an extra one added to the flock. This is particularly true with the young mothers and in cases of twins or triplets. Very often one of these is weaker than the other, and should it become chilled may die before it gains sufficient strength to take nourishment from the mother.

When the lambing season is early a comfortable lambing pen is essential; in fact it is profitable at any time, for very often ewes with twins or triplets when left in the flock will drown their lambs. Furthermore, ewes after lambing require more generous feeding, and the lambing pen makes this possible. A careful watch to assist the weak ones will reduce the number of losses. In cases of heavy milkers, milk fever may occur. In such cases the udder should be bathed in warm water, thoroughly dried and rubbed with pure hog lard as hot as the eye can stand. If the teats become sore from lambs biting them, two or three applications of vaseline per day will help them. All wool on the udders that prevents the lambs from feeding properly should be clipped off with the shears.

It has been noted that lambs soon begin taking a little of the grain mixture fed to their mothers, therefore it is advisable to have a small run made at one end of the pen into which the lambs only may go and be fed separately. A good grain mixture for lambs is two parts of wheat bran, one part of crushed oats, one part of finely ground corn meal and from one-quarter to one-half part of oil-meal. Whole oats will do, but the former is preferable. Should a ewe not have sufficient milk for her young, the lamb may be materially helped out by giving it two or three feeds per day of cows' milk.

All lambs should be marked a few days after birth, thus saving trouble later on. All ram lambs that are undesirable as breeders should be castrated and all lambs docked at the age of two or three weeks.

As many of the failures in the sheep industry can be attributed to carelessness and negligence during the breeding and lambing seasons, it is most essential that careful study and attention be given to the flock at this time if success is to be assured.

Keep the Cow Comfortable.

The dairy cow, to give a large yield of milk of high butter-fat per cent.

## FARMERS' BOOKLETS SENT FREE

Any of the following may be had free on application to the

Publications Branch  
Department of Agriculture  
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Report of the Minister of Agriculture.  
Report of the Bee Division.  
Report of the Chemistry Division.  
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Fox Ranching in Canada.  
Directions for Collecting and Preserving Insects.  
Is Cow Testing Worth While?  
Mellin's Food.  
Influence of Feeding on Type of Hogs.  
Care of the Ewe and Lamb.  
Artificial Incubation.  
How to Make and Use Hotbeds and Cold Frames.  
New Varieties and Selections of Grain.  
The Fertilizers Act.  
Hardy Root.  
Bush Fruits.  
Recommended Varieties of Field Roots.  
Weeds and Seed Weeds.  
The Maple Sugar Industry.  
Crop Rotations for Central and Eastern Canada.  
The Strawberry and its Cultivation.  
Swine Husbandry in Canada.  
Seasonable Hints.  
List of Publications, 1923.

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must be made comfortable. Most dairymen stable their cows most of the time during the winter. I find that on an average, my cows are stabled twenty-three out of every twenty-four hours. Mild days I allow my cows to remain in the yard from one to two hours, but in chilling weather they are in the yard just long enough for watering. I believe daily outdoor exercise adds to the health and comfort of the dairy cow.

My cows are tied with swinging stanchions. These stanchions are suspended on a short chain about six inches long and are also fastened at the bottom with a short chain about the same length. I like this stanchion as it gives the cows a great deal of liberty, yet they are properly tied. I do not like the rigid stanchion. For years we tied our cows with chains about the neck, attached to a vertical bar. This tie was far ahead of the rigid stanchion from the standpoint of comfort of the cows, but the swinging stanchions are the most satisfactory of all.

To stable cows comfortably, a properly arranged and constructed stall is essential. We have used plank floors, cobblestone and block floors in our stable, but the cement floor is the most satisfactory, beyond all question. It is easy to keep clean and sanitary and because of this there is no unpleasant odor about the stable. I consider foul gases about the stable as injurious to the health of the cows as to the dairymen himself. I believe a smooth, tight floor an important factor in the sanitary stabling of cows.

The stable should have plenty of windows on all sides, if possible, and especially on the south side. During winter the days are short and many days are cloudy. Unless there are plenty of windows the stable will be very dark and gloomy. The dairy cow, like a human being, enjoys sunshine. My cows are stabled along the south side of my barn so that the sun can shine directly upon the cows.

Good ventilation is absolutely necessary to the health and comfort of the cows. Few farm barns are equipped with an adequate system of ventilation. However, fresh air may be brought into the stable in various ways if care is exercised to avoid direct drafts. One or more windows may be raised several inches and a board fitted across the opening in such a manner as to allow fresh air to come in without draft. A door may be left partly open on the side opposite the prevailing winds. Abundance of fresh air is essential for the health and comfort of the dairy cow.

To consume her food profitably the dairy cow must have a comfortable bed to lie on. Plenty of clean, dry bedding not only provides comfort but assists in keeping the cows clean, and the stable sanitary. I like to use all the bedding I possibly can, in my stable as it not only keeps my cows clean and makes them comfortable, but materially increases my manure supply.—Leo C. Reynolds.

### Study the Individual Cow.

From various experiments in feeding dairy cattle, and from observations made through the records of cow-testing associations, it has been found that good feeding will increase the milk flow of the average cow from 25 to 50 per cent., says Mr. A. H. White, Chief Dairy Promoter of the Dominion Dairy and Cold Storage Branch, in his recently issued pamphlet on cow-testing. To bring this increase about, it is not sufficient for the dairymen to know the requirements of his herd as a whole; he must know the necessities of each individual cow in order that she may produce the most. This knowledge can be obtained only by keeping records of each cow; but, as Mr. White points out, where there is a milk shed, it is an easy and simple matter to apportion the grain ration according to each animal's production. It is no uncommon thing to find dairy cows being fed a ration of silage, hay and straw with a little oat chop and no grain at all. Yet they are expected to produce milk profitably! As the author further says, protein is a necessity and should be supplied either in good alfalfa or clover hay or in such concentrates and grains as all meal, cotton seed cake, gluten meal, bran, oat chop, and other meals.

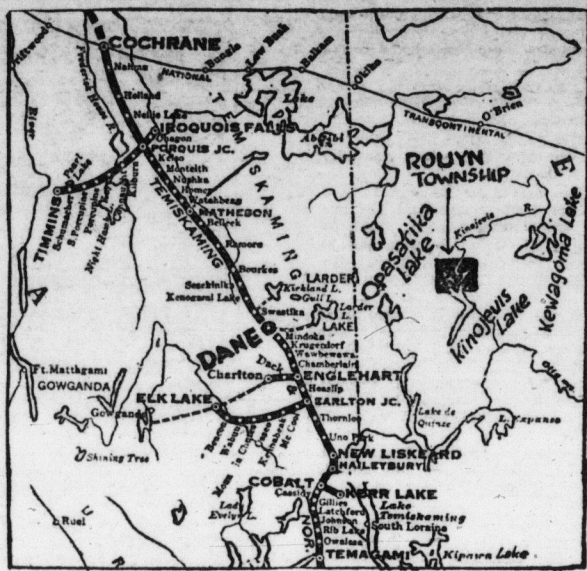
### Small Profit in Scrub Stock.

To secure quality and early maturity in beef animals (and it might be added for economy), a good pure-bred bull is essential. With present prices it would pay most farmers to buy such an animal now, or if not, to set about making arrangements for the use of a pure-bred bull in the spring. If there is no animal of the kind near, the Dominion Live Stock Commissioner has arrangements for overcoming the difficulty, and will furnish information on request.

### Died Bald.

The pupils had been writing a history essay, and when the teacher was correcting the papers she was puzzled to find this remark in one of them: "King John died bald."

On being questioned, the boy who had written this said: "Well, teacher, you said he died without hairs!"



TO WREST WEALTH FROM THE HINTERLAND.

When geologists, mineralogists and prospectors all agree that Northern Quebec has the richest bit of wealth producing land yet untapped in Canada, it can be readily expected that there will be the next great gold rush. In spite of intense winter weather thousands of gold seekers are already in Robyn Township seeking the precious metal. An unprecedented rush is predicted for the spring when the waterways open up. It lies just east of the Quebec border and not far distant from the rich ore fields of northern Ontario. The water route to the new field will be by a chain of lakes and rivers from the head of Lake Temiskaming.

### HOGS

The feeding value of alfalfa for hogs has been demonstrated in numerous instances, but it would not seem amiss at the present time to offer a brief discussion on the matter. Because of its suitability in a variety of forms, it has proven to be a boon to the hog raiser.

When used in the form of green feed either as a soiling or pasture crop, when cured and used as hay, or ground into meal, it has been found that almost invariably this feed has taken a foremost place when compared with the other legumes.

In the cured state as hay it is particularly well adapted to meet the requirements of mature hogs as a roughage. The hogs consume only the finer portions of the stems and the leaves, and it is, therefore, very important when harvesting this crop to preserve as many of the leaves as possible.

Analysis shows that alfalfa contains upwards of 16 per cent. of crude protein and about 8.5 per cent. of mineral matter or ash. Both these constituents are relatively important in the case of the hog, for the protein is one of the most expensive constituents of the ration. When this produced from alfalfa hay, which is a

relatively inexpensive source, it permits of a material reduction in the cost of the ration of mature stock.

There is little advantage to be gained from chopping alfalfa or grinding it into meal, except for young pigs, because of the fact that the increased value has not proven sufficiently great to offset the additional cost. In the case of young pigs, however, which are incapable of handling any appreciable quantity of roughage, alfalfa can be used in the form of meal to good advantage.

Because of the peculiar limitations of the hog in the handling of roughages, this class of stock cannot make substantial gains on alfalfa pasture alone without the addition of concentrates. Some form of meal is necessary in order to produce economical gains. Experimental results have shown that when on alfalfa pasture the most economical as well as the most rapid gains are realized when from 2½ to 3½ pounds of corn or barley meal are supplied for every pound gain in live weight. It was further found that the most economical gains on alfalfa pasture are obtained from hogs which weigh in the proximity of 100 pounds when placed on the pasture.

It is a generally accepted fact that somewhat greater gains may be obtained where a system of soiling is practiced than when hogs are pastured, but the not inconsiderable additional labor and expense involved in the cutting and hauling of the crop has resulted in the production of pork by this method being fully as expensive when compared on the basis of cost per pound of gain in live weight.

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tained where a system of soiling is practiced than when hogs are pastured, but the not inconsiderable additional labor and expense involved in the cutting and hauling of the crop has resulted in the production of pork by this method being fully as expensive when compared on the basis of cost per pound of gain in live weight.

### Grading of Eggs.

The only exported farm produce, excepting fruit, in which we do any grading worth mentioning at the present moment is eggs, and when it comes to eggs Canada ranks highest, next to the home article or the Holland article, which of course, reaches Britain inside of twenty-four hours.

Thirty dozen crates, "Canada Firsts," were quoted some shillings higher than American selected eggs. Americans being naturally our greatest competitors," testified the Deputy Minister of Agriculture of the Dominion in a delivery on his return from a personal investigation of the British market. In connection with this statement it is interesting to note that Canada is the only country in the world with egg standards based on the actual quality of the egg. These standards are based on weight, size of air cell, visibility of yolk, firmness of the white, and cleanliness. In the standards, eggs are divided into three classes—fresh, storage and preserved, cracked and dirty. The class for fresh is again divided into the grades, specials, extras, pullet extras, first and seconds, and the class for storage and preserved into the grades, extras, firsts, and seconds. If, inspected eggs are intended for export and are up to grade, they receive the Government mark, consisting of a maple leaf design bearing the words "Canadian Eggs" "Government Inspected."

A system of inspection for imported eggs has also been adopted and came into effect on October 7, 1922, since which time inspectors working under the Dominion Department of Agriculture have been able to report an improvement in eggs from the United States compared with shipments earlier in the season. In ship-

ment, the selling and purchasing of eggs for home consumption by grade has been encouraged, and retailers report complete satisfaction in the method of grading adopted. An advertising campaign with this object in view has just been concluded by the Department, covering the significance of grading and the culinary uses to which the different grades may be put. A provision in the regulations relative to grading requires wholesalers and retailers to live up to any grade names they may adopt, and to be sure that the eggs sold under those names meet the requirements and definitions when candled.

Safety first, and all the time. Harnesses in good repair are accident insurance.



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## THE CHILDREN'S HOUR

### A Ride in a Dog House.

Willie and Donald were playing hide and seek, and Willie was looking for a good place to hide. In the next yard he saw a dog house, which Mr. Willis, the carpenter, had just finished. He crept inside it.

It was very comfortable in the little house, and Willie fell asleep. Donald searched for a long time before he thought of the dog house. He peeped in and, seeing Willie asleep, thought he would play a little trick on him; so he quietly closed the door and slipped the bolt and then went home to supper.

Donald ate his supper, forgot all about Willie and went to bed. But sometime in the night he awoke and remembered what he had done. He put on his clothes, crept downstairs and went into the darkness. He found his way to Mr. Willis's yard, but he could not find the dog house. He was very much frightened, but he knew he must find Willie. He pulled the heavy knocker. It sounded all through the house. Mr. Willis came down with a light in his hand.

"Why, Donald!" he said when he saw the small boy. "What is the matter?"

"I locked Willie in the dog house and it is gone," he said in a frightened voice.

"Of course it's gone," Mr. Willis replied. "I just finished it yesterday for a man down at Millville, and I sent it over on the evening train. I remember that the box felt rather heavy when I lifted it on the car. Does his mother know what has happened?"

"No. Willie goes down every night to stay with his aunt while his uncle is away."

"I see. She thinks he is down there. Perhaps he is, Donald. Go back to bed, and in the morning we'll look him up."

Donald did not say anything more. He ran home to his room, but he could not sleep. He thought of Willie in the dog house, alone in the dark and without any supper.

Again he crept down to the kitchen. He put a biscuit in his pocket and started to find his friend. He knew that if he kept to the railroad track he would finally reach Millville. It was a long way off—nearly ten miles, but he meant to go there at once.

As Donald walked on through the darkness he felt very much afraid. He had to rest a great many times, and his feet blistered and grew very sore. It was getting very light when he reached Millville. He looked for the dog house, but it was not there, so he sat down to wait until Mr. Willis should come to help him find Willie. He felt a little better now that morning had come, and, laying his head against the station door, he went to sleep.

"He's gone, Donald!" somebody cried. He sat up and rubbed his eyes. There was Willie with the ticket agent.

"You are a fine boy to lock a fellow up and forget him," said Willie, taking it for granted. "How did you get here?"

"I walked," Donald said wearily. Willie seemed to enjoy the adventure. "I never woke up," he told Donald, "until the man lifted the dog house off the train. I peeped through the hole, and then I knew what had happened."

"And he barked so loud," said the ticket agent, "that we opened the door. Out crawled a boy instead of a dog, and I had to take him home and feed him."

Just then Mr. Willis came along in his car. "I see the lost dog has been found," he said, laughing. "How did you get here, Donald?"

"He walked ten miles in the dark," the ticket agent answered.—Evangeline Weir, in Youth's Companion.

### Cresote in Stovepipes.

To prevent creosote running down the stovepipe when wood is used in place of coal, just leave the check draft in upper or feed door open all the time.

A certain farmer decided that he wanted no careless shooting on his place. So the family prepared the following: "No Hunting on This Farm." After the sign was finished, they thought that the owner's name should appear upon it. There was only one space where there was room for it, so when the sign was nailed up, it read:

NO HUNTING  
JOHN SMITH  
ON THIS  
FARM



Teacher: Why are you so slow, John? You seem to move by inches!  
John: But, teacher, anybody can see I move by feet!