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 real 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 for, 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 disown 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 their 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 noticed 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., 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 dairyman 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 manurial supply.—Leo C. Reynolds.

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 addition, 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.

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 heirs!"

There have been thirty-two Parliaments in the history of England.

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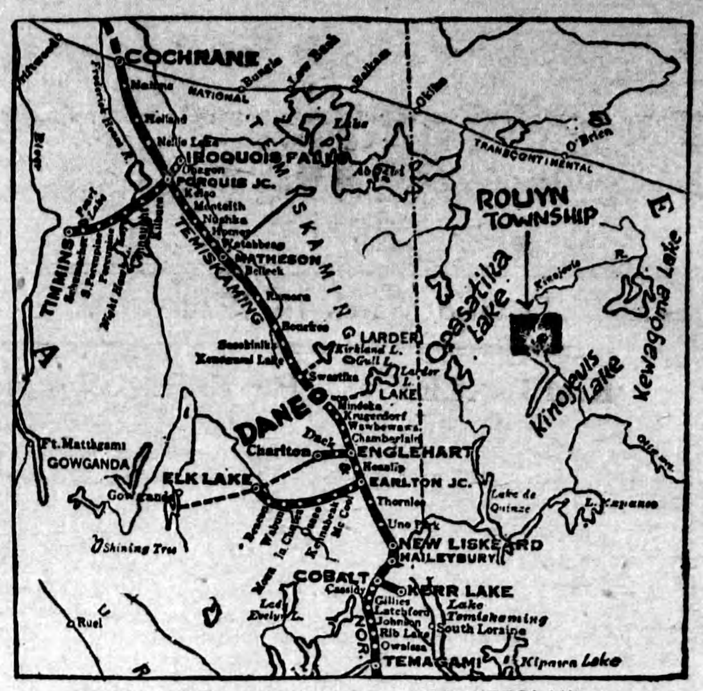

TO WREST WEALTH FROM THE HINTERLAND.

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 Rouyn 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.

THE SUNDAY SCHOOL LESSON

MARCH 18.

Jesus Crucified, Luke 23. Golden Text—He was wounded for our transgressions, he was bruised for our iniquities; the chastisement of our peace was upon him; and with his stripes we are healed.—Isa. 53: 5.

Lesson Setting—After the arrest of Jesus, he was taken before the chief priests,—Annas and Caiaphas. Then he appeared before Pilate and Herod and lastly before Pilate again. In his trial before both civil and religious authorities, justice was travestied. Pilate was actuated in the end by fear. The priests were blinded by hate. During the trial Jesus was patient, quiet anl unafraid. He never seemed so different from other men as during that experience when men heaped their indignities upon him. The strength that he found after much agony in the garden of Gethsemane did not fail him in the hour of utter need.

I. The Long Agony, 33-43.

Vs. 33, 34. **When they were come . . Calvary.** Jesus had come from the judgment hall, bearing his cross, amid the lamentations of the women. Then the cross was laid on Simon of Cyrene. The word Calvary means skull. The place was probably a low mound, shaped somewhat like a skull. It lay outside the city gates near a public highway leading into the city. **And the malefactors;** two robbers of the same class as Barabbas. Jesus is placed between them as if to identify him with the worst of criminals. **Father, forgive them.** This is the first of the seven words from the cross. This prayer for forgiveness was for the soldiers who had nailed Jesus to the cross. The soldiers were but the tools in the hands of others. Elsewhere we learn that before the actual crucifixion he was offered "drugged wine" to deaden the pain. Jesus refused it, for he must dring the cup of pain to the dregs. **Parted his raiment.** The clothes of a criminal belonged to the executioners. They were divided by lot.

The people stood beholding. They had played their part when they had cried, "Crucify him." Now they were passive spectators. **The rulers . . . derided him;** the members of the Sanhedrin. They seem to have come to their hour of revenge. **He saved others . . . save himself.** They think that the submission of Jesus means helplessness rather than willing sacrifice. It was because he was the Christ that he would not save himself.

Vs. 36-43. **The soldiers also mocked;** taking their cue from their superiors. **Offering him vinegar.** If this was not the drugged wine already mentioned, then it was given him as a grim and cruel joke. **A superscription.** It was customary to inscribe on a tablet the cause of condemnation. In this case the Jewish authorities asked Pilate to change the title so that it would read, "He said I am the King of the Jews." But Pilate refused, saying, "What I have written, I have written." **One of the . malefactors . . railed . . the . other . . rebuked him.** The other malefactor, even in the extremity of his agony, had been impressed by the personality of Jesus—his patience and his forgiving spirit. He see that while he and his companion are suffering justly for their offences, Jesus had done nothing to warrant his punishment. **Remember me when thou comest into thy kingdom.** He has a real faith in Jesus that he is more than man. He is a king, and the thief asks to be remembered by him. **To-day . . in paradise.** Jesus shows his full understanding of the man's words. His faith and worship is to be rewarded. This is the second word from the cross. The third word (John 19: 25-27), is spoken when Jesus commends his mother to the care of John, his disciple.

II. The Finished Work, 44-46.

Vs. 44-45. **It was about the sixth hour;** at noon. Being the time of the full moon, the darkness could not be due to an eclipse of the sun. **Darkness over all the earth;** as if nature were in sympathy with Christ in his suffering. **Veil of the temple . . rent.** This was the curtain that separated the Holy Place from the Holy of Holies. The rending of the veil symbolized the fact that Christ's death had made a new and living way to God. In Matthew we learn that the veil was rent from top to bottom, and that there was an earthquake and that many of the saints which slept arose and appeared to many. **Jesus . . cried with a loud voice.** This introduces the seventh and last word of the cross. From the other Gospels we learn the fourth word (Matt. 27: 46, 47; Mark 15: 34, 35), "My God, My God, why hast thou forsaken me?" This was the cry of one who for the moment had lost his sense of fellowship with God. It is the note of an experience too deep for us to fathom, and possible only to one standing in a relation different from ours to man and his sin and to God and his grace. We learn also the fifth word, (Matt. 27: 48, 49; Mark 15: 36), which was "I thirst." At this cry a sponge, saturated with vinegar and placed on a hyssop stalk, was placed to his lips. Then we have the sixth cry (John 19: 30), "It is finished." This was not the faint utterance of a worn-out body, but the deliberate utterance of a clear consciousness that his work was finished, and that God's ordained purpose had been fulfilled. It is not simply an ending of his sufferings, but a perfecting of the work which he came to do.

Vs. 46. **Father.** The cloud that seemed to separate his soul from God has lifted. It is to his Father that he speaks once more. It is the word of love and trust. **Into thy hands I commend my spirit;** again the words of serene and quiet confidence. If Jesus died of a broken heart, he did not die with a broken faith. **He gave up the ghost.** The expression is rather—"He rendered his spirit." None of the Evangelists say simply that he died. It is as if they wished to imply that Jesus gave himself to death as he gave himself to life, with deliberateness and willingness. He crowned in death what he did in life.

Application.

The crucifixion made very different impressions upon those who witnessed it. On the soldiers, who actually did the deed, it seemed to have made little or no impression; they were absolutely blind to the wonder and glory of the scene in which they were taking part. Dr. Alexander Maclaren suggests that they were foreigners and probably they could not speak a word to any in the crowd. The act of crucifixion would not be anything out of the ordinary for them, for it was part of their ordinary work in troublous times. Upon the members of the Sanhedrin and those who thought with them it had an extraordinary effect; the perfect revelation of goodness and spiritual beauty threw them into convulsions of angry opposition. Even the group of the friends of Jesus, standing afar off, saw only a very little way into the meaning of what was taking place before their eyes. As Dr. James Stalker says: "When something grand is to be seen, there is required not only the object but the seeing eye. The image in a mirror depends not only on the object reflected but on the quality and configuration of the glass."

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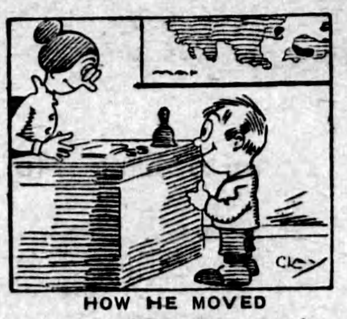

HOW HE MOVED

Teacher: Why are you so slow, John? You seem to move by inches!

John: But, teacher, anybody can see I move by feet!

Study the Individual Cow.

From various experiments in feeding dairy cattle, and from observation 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 dairyman 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 sheet, 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.

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