

PREVENTING LAMB LOSS IN SPRING HINTS FOR THE STOCK FARMER

BY L. STEVENSON, V.S., B.V.Sc.

In numerous flocks each spring, losses are experienced, a few lambs may sicken and die, or half the lamb crop may pass out, one by one, a few days after birth. With lambs born out on the green grass the losses are very small, but where ewes are confined to or have access to pens and yards that have sheltered sheep for many years the losses are frequently such as to take much of the profit from sheep raising. Even if the loss is as low as one in four it puts a crimp in the profits.

This destroying disease is known by various names, "Lamb Dysentery," "Scour," "Red Scour," "Yellow Scour," "Lamb Diarrhoea," "Lamb Sickness."

The Cause. Two different organisms, working together, an evil combination, one is known as *Bacillus Coli* and the other as *Bacillus Welchii*. Harmless strains of these bacteria are found normally in the intestine of healthy lambs. But at times these invaders develop a virulence that produces disease. The virulent strains once developed may be transferred from lamb to lamb with disastrous results. The infection enters the mouth and reaches the intestine, where it causes a catarrhal inflammation of the mucous membrane. The *Bacillus Welchii* attacks the bowel wall and produces an ulceration. These ulcers make way for the *Bacillus Coli* to enter the general circulation.

The disease is spread by the ewes lying on contaminated soil or litter, infected lambs and people handling the sheep. Lambs are not born infected with lamb dysentery, but they may become infected while passing through the birth canal, due to the organisms gaining entrance to the mouth. Infection may be taken by the lamb during the first attempt to nurse, as the nipples are frequently covered with germs. The udder, the skin and the wool on the under side of the ewe's body are fertile fields from which infection may be gathered, as every time the sheep lies down on a floor or ground that is fouled with filth from other animals, millions of bacteria will adhere, to be transferred to whatever may touch her. The disease germs are widespread and may be found wherever

sheep frequent. The hands and clothing of those attending sheep are usually very much contaminated.

SYMPTOMS.

The lambs may appear all right to-night, but to-morrow morning one or more may be dead. If the lamb contracts the disease during the day, it becomes dull, listless, lies about half asleep, stops nursing. If made to move it does so showing pain and stiffness, feces passed with pain and difficulty, feces may become brownish-red in color, sometimes yellow and semi-fluid, and often tinged with blood. Should the lamb live for several days as sometimes happens in less severe cases, its back is arched, its abdomen empty, and a mass of brownish or yellowish-red diarrhoeic material clings to the tail. In this condition it lies down and passes into unconsciousness.

POST MORTEM.

The following post mortem symptoms are generally noted: the entire intestinal tract is very intensely inflamed, the abdominal cavity may be filled with liquid, or the organs may be adherent, due to the presence of a sticky exudate, small ulcers cover the surface of the bowel, the bowel content is blood tinged and liquid, odor very objectionable, liver enlarged and pale in color. Medical treatment has so far not proven to be of any value.

PREVENTION.

With the bacilli hardy enough to live from season to season, distributed wherever diseased lambs have been, it is a problem to protect, by hygienic means, the new lamb crop. The first move in prevention of losses, is the cleaning up of the ewes. About two weeks before the lambs are due, the long, soiled wool about the hind quarters should be removed. If the weather is warm enough or protection in clean quarters can be given, the sheep should be given a thorough dip or washing and then moved directly to fresh clean pens or pastures. Ailing lambs should be killed and buried by someone other than the man attending the sheep. Success in combating lamb dysentery depends on the thoroughness of the hygienic methods adopted and practiced. The least carelessness in disposing of dead lambs will keep the premises infected as long as sheep are kept.

Cost of Apple Thinning.

To thin or not to thin is necessarily a question of importance to growers of apples for commercial purposes. In his latest report, the Dominion Horticulturist goes somewhat exhaustively into the subject based upon experiments conducted with the Wealthy variety. Not only is the question considered as regards quantity and quality, but also in reference to cost and profit. As for the commercial grower the latter is the leading point to be considered, the following remarks from the report are quoted pretty well in full as indicating the conclusions reached by the Horticulturist (Mr. W. T. Macoun): It should be pointed out, he says, that the operation of thinning does not cost the grower any more than not thinning. The apples on the trees must be picked at harvest time. If a certain number are picked in early summer and dropped these do not have to be picked again. It is easy to see that picking and dropping the fruit on the ground is much less expensive than picking in the fall, carefully placing in a basket, handling to the packed shed, grading and packing. If a large number of these apples are thrown and culls and have to be discarded or sold as cider apples it is apparent that this extensive handling can come to more than the small price received for such produce. Here in the Horticulturist's opinion lies the great advantage of thinning—by reducing the number of culls the cost of handling and picking is brought down to the minimum. Growers do not always appreciate this point, holding that the cost of removing the fruit in the summer must be added to the cost of picking had the trees not been thinned. If this were the case the thinned crop would be asked

to bear the cost of picking a percentage of the fruit twice, which does not happen.

How Legumes Improve the Soil.

The legumes, or podbearers are, next to grasses, probably the most important of all orders of plants to the farmer and to mankind.

These plants are valuable not only because they furnish food for man and for his livestock, but also because they help keep up, or even increase, the fertility of the soil and make possible larger yields of practically all other cultivated plants.

The supply of nitrates in most soils is too small to allow most crops to make their greatest growth. However, certain bacteria find a congenial home on the roots of certain plants, mostly the legumes and once settled on the root of a legume, the colony of bacteria begins storing up nitrogen in little swellings or lumps on that root—"nodules" these are called. So it is that much of the nitrogen in a crop of legumes has come directly from the air; and when any large part of a legume is left in the ground the crop following finds a richer soil and more food than it would have found if this legume crop had not been grown.

I Feed Hens by Wire.

Throwing a cabbage head to the hens won't work very well. They don't eat enough. Hang it up and they will clean the whole thing out except the root.

Hanging is a nuisance if you have to tie each head. I made several hooks of No. 9 wire and can easily slip the root into these and do it in a hurry. They don't come loose either.—E. R.

Sprouting Potatoes.

Tests at the Inverness, B.C., experimental station indicate that potatoes can probably be planted at any time between May 1st and June 15th. After the latter date the result is poor. It was also proven that sprouting forwarded the crop by seven days. Early Northern sprouted planted May 15th was ready August 3rd; non-sprouted planted the same date was ready August 10th. The yield of sprouted was 22½ tons per acre and of non-sprouted 20½ tons. With Wee Macgregor the results are the same, but the non-sprouted yielded slightly better, the record being sprouted 27½ tons, non-sprouted 28½ tons. Sprouting was effected by placing the tubers in a warm dimly-lighted building three weeks prior to planting. Strong sturdy shoots about half an inch long were the result.

Wilson Publishing Company



A SMART FROCK FOR THE JUNIOR MISS.

Smartly simple is this attractive frock for all-daytime wear. The upper front panel is of contrasting material and the lower section is plaited to provide the necessary skirt fullness. The back is in one piece and a belt fastens at the side seams and ties in a chic bow. There is a becoming round collar and long sleeves gathered to wristbands. No. 1480 is in sizes 8, 10, 12 and 14 years. Size 10 years requires 2½ yards 39-inch material, or 1½ yards 54-inch and ¾ yard 39-inch contrasting. Price 20 cents the pattern.

Our new Fashion Book contains many styles showing how to dress boys and girls. Simplicity is the rule for well-dressed children. Clothes of character and individuality for the junior folks are hard to buy, but easy to make with our patterns. A small amount of money spent on good materials, cut on simple lines, will give children the privilege of wearing adorable things. Price of the book 10 cents the copy.

HOW TO ORDER PATTERNS.

Write your name and address plainly, giving number and size of such patterns as you want. Enclose 20c in stamps or coin (coin preferred); wrap it carefully for each number and address your order to Pattern Dept., Wilson Publishing Co., 73 West Adelaide St., Toronto. Patterns sent by return mail.

The skin of the human palm is seventy-six times as thick as that of the eyelid.

Sunday School Lesson

April 10. Peter's Lesson in Trust, Matt. how 14: 22-33.

ANALYSIS.

I. IS CHRIST OUR EXAMPLE ONLY? 22-23. II. CHRIST IS NOT ONLY OUR EXAMPLE, BUT OUR SAVIOUR, 24-33.

INTRODUCTION.—Peter, after he became a disciple, experienced the desire to act like Christ, but was frequently made sensible of his inability to do so. The desire was right, for he had been called to walk in Jesus' steps. Yet, in spite of his admiration for his Master, and in spite of a genuine desire to be like him, he was repeatedly forced to admit that his own strength was insufficient. This is the truth which is brought home to us in the incident selected for to-day's lesson. Christ is our example certainly, but he is our example only by being at the same time our Saviour. We need not only the pattern of his character, but the strength which his arm affords. Peter thought it possible to walk on the water when he saw Jesus doing it, but when he tried it he lost nerve, and had to cry, "Lord, save me!" All this is to be understood spiritually. To follow Jesus amid fears and temptations is like walking on the stormy billows. A man needs to do it. These who, like Peter, have followed Christ most closely have found in him not merely the pattern or ideal of the religious life, but the power of God.

I. IS CHRIST OUR EXAMPLE ONLY? 22-23.

It is important, in dealing with the miracle narratives in the Gospels, to remember that, first and foremost, they are the record of religious experiences. Those who lived near to Jesus found in him not only truth and love and righteousness, appealing to their reason, but a strange supernatural quality before which they trembled, but which, nevertheless, fascinated and riveted them, made them think of God. It is this incomprehensible element in Jesus' personality which is pictured in such miracle-narratives as the Walking on the Water.

Vs. 22-23. Jesus, after the great sacrament of the Feeding of the Multitude, commands his disciples to embark on the boat and to cross to the other side of the lake, while he takes farewell of the people. He felt a boundless compassion for these unsheltered souls (Mark 6:34), from whom he was soon going to part for ever, and he postpones his farewell to the last moment. After they are gone, the Saviour seeks solitude among the hills, and prays, continuing his vigil far into the night. Meanwhile his disciples are battling with wind and wave on the dark waters of the Galilean lake.

Vs. 24-27. Now comes the strange experience of Peter and the other disciples, which is enshrined in the miracle-narrative of the Walking on the Water. Whatever else the narrative means, it implies a strange new manifestation of the supernatural in Jesus, by which the minds of the disciples were utterly overawed. The tradition states it in the form that the disciples beheld what they took to be an "apparition" or "spirit," that is, the spectacle of Jesus walking towards them over the waters. Clearly some experience which has no analogy in the ordinary happenings of human life is described. But from the state of supernatural terror into which the disciples are thrown by the vision, they are presently released by hearing the voice of Jesus say to them, "Be of good cheer; it is I, be not afraid." This assurance comes in Peter's mind the desire to do what he now proposes, that is, to follow the example of Jesus in walking on the waters.

Vs. 28, 29. "Lord, if it be thou," says Peter, "bid me come unto thee upon the waters." Perhaps we ought to think of the whole incident as a parable of Christian life or faith. Is the Christian able to walk successfully after the example of Jesus? Can he rise superior to the terrors and powers of the world as Jesus did? Will he be supported by the invisible arm of God, as Jesus was, in doing incredible things?

II. CHRIST IS NOT ONLY OUR EXAMPLE, BUT OUR SAVIOUR, 24-33.

Vs. 29, 30. Peter makes the attempt courageously enough. But appalled by the stormy element he loses nerve and beginning to sink he cries, "Lord, save me." He discovers that a Christian cannot emulate the example of Christ in the sufficiency of his own strength or confidence. He can only succeed as he keeps believing in Jesus. For to live like Christ

SPRING AT THE CHILDREN'S TABLE EMPHASIS ON FRUIT AND CEREAL

BY LETTIE GAY.

When our grandmothers as little girls pined under the rigors of March winds and rains and apathetically declined to eat their porridge and milk, they were unequivocally commanded to swallow large spoonfuls of sulphur and molasses, a mixture in whose tonic qualities great faith was maintained.

Fortunately the year-round diet of most children to-day may be such that a dosing of this sort is unnecessary. But wise mothers will take careful precautions against possible illnesses following too many hours spent indoors because of stormy weather, or as a consequence of an all-over wetting in a sudden chill spring rain. This is an especially good time for a trip to the doctor for a general physical examination, but mothers need not wait for the doctor to recommend a diet rich in eggs, milk, fresh fruits and vegetables, and all those foods containing plenty of cellulose to help regulate the body, and vitamins to fortify against contagious sicknesses.

SPRING DIETS.

These are the last few weeks in which children are most likely to catch colds, and although there must be plenty of good nourishing food, keep the menus simple and watch the sweets at this time of year. A large salad made of chopped vegetables (raw carrots, cabbage and tomatoes are palatable in such a combination), a slice or two of bran bread spread with peanut butter, a glass of milk and a dish of ripe bananas with thin cream for dessert, is an adequate luncheon for most healthy children and at the same time furnishes the body with those tonic properties and regulatory ingredients which had weather and a period of inactivity may render advisable.

As though a man should attempt to walk on the waters. It cannot be done except through the power of him whose sovereign will even the stormy elements obey.

V. 31. This is the most important verse in the lesson, so far as Peter is concerned. The moment that Peter cries, "Lord, save me," Jesus stretches out his hand and holds the sinking disciple up, at the same time saying, "O thou of little faith, wherefore didst thou doubt?" Peter had shown faith in himself, a very good quality, but his own power or authority that he was inadequate to support a man in venturing to follow in the steps of Jesus. What he lacked was faith in the Saviour. But the grip of the hand of Christ taught him a lesson which in later life he did not forget. When at a subsequent time he healed the lame man at the Temple gate, he made it clear to his hearers that it was not by his own power or authority that the healing was effected, but only by the power and authority of Christ. To do work for Christ or to succeed in following his example we need to put ourselves in Christ's hands, and then the divine grace of the Son of God will operate through us.



She—"Do you think dancing sinful?" He—"Well, it's syn-copation all right."

Rare Find.

Mrs. Smithers (on motor trip)—"This is an awfully poor road." Smithers—"It has its compensations, my dear. We're not getting more than ten billboards to the mile."

Salt Scarce in China.

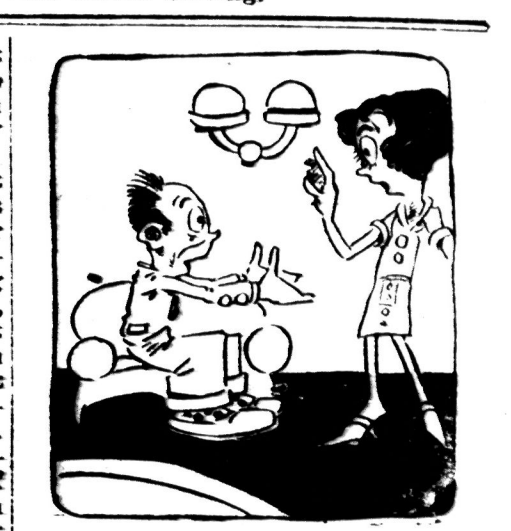
To obtain salt in inland China, wells are sometimes laboriously bored through solid rock to a depth of 3,000 feet.

At supper time a large bowl of steaming vegetable soup made with milk (with grated raw carrot, or cabbage added just before serving), a baked potato and dessert of bran cookies and cream cheese, provide therapeutic nourishment in a welcome form.

Breakfast should be carefully planned and slowly eaten. Have well cooked cereal several mornings a week, at least, and vary it by mixing in chopped dates, prunes or raisins and sprinkling it liberally or mixing half and half with a bran cereal. If the children are accustomed to a lunch at mid-morning, or in the afternoon give them at one time a glass of orange juice, which will aid in stimulating a declining appetite, and a crisp wafer; at another time give an egg nog or plain milk with bran or whole wheat bread.

PLAIN DESSERTS.

Serve fruit, fresh or stewed with not too much sugar, and plain, crisp cookies as the most frequent dessert, and serve meats less frequently. Instead, substituting cereal, nut and vegetable loaves and cheese entrees. Meat loaves and other chopped meat mixtures, have to recommend them, besides their economy, their adaptability in combinations with chopped vegetables and cereals. A meat loaf, like minicmeat, may be mostly something else besides meat. Try mixing the ground meat with canned tomatoes or tomato soup and then thickening with a cup or so of cornflakes or bran cereal. Add one or two beaten eggs, a chopped onion and other seasonings. Grated carrots or cabbages or finely diced beets may be added to the meat mixture for additional freshness and vitamins, or may be added to the meat sauce the last minute before serving.



Thought Him a Single Man. "I want you for my wife." She (shriekingly)—"Blessed deceiver! I thought you a single man!"

Change in King's Title Necessitates New Seal

London.—The discussion as to whether a new Great Seal will be necessitated by the change in the King's title following the Imperial Conference decision has brought out information interesting to thousands of people who know only vaguely what the Great Seal is.

The seal itself is composed of two heavy discs of sterling silver hinged together to form a mold and is three inches across and a quarter of an inch thick. When the new one is manufactured the King will give the old one a gentle tap with a hammer—a process called "damasking," after which the old seal becomes the personal property of the Lord Chamberlain.

Opening a silo? Here's a tip: The way we used to get moldy ensilage out was either to throw it down the chute and carry it out of the barn, or throw it up out of a little door in the roof. One day I thought of something better. I took a couple of hinges and four boards and framed a door in one side of the chute about six feet from the ground. The hinges must be at the bottom of the door inside, and door must be about 18 inches longer than width of chute, so that the slope will cause the waste to slide out. After the moldy ensilage is thrown out, the door can be hooked shut again.—A. H.

MUTT AND JEFF—By Bud Fisher.



Jeff's Right. Mutt Must Be a Bit Balmey in the Bean.

Is Now C
INVEST

Unusu
Shrewd

To partici
in a compa
men of nat
in the exp
most profit
sources wh
been reduc
possible pro
is an excep
Investors a
vantage of

Your C
With An
Of 3%
to A

Valuable
Withou

For Compl
Mail T

NATIONAL

Northern Ont
Toronto 2, Ca
Please send
of your propo

Name

Address

Iona Sac
He

No one spendi
Scotland shou
an effort to go
the sacred isle
west coast.

This is the b
tionality, cultu
Church of St. Col
the Westminster
for it contains
Ireland, Norway
The isle is 60
miles long by ab

If you want
look larger, as w
the eye, use a
the scatter size
of painted wood
ing the carpet to
room dwarfs its



Loves V
Used t

Never discar
you don't like
it's dull or faded,
you can make it
able shade!
Home dyeing i
and have the nic
without spending
easy to dye anyth
colors—but what
be sure to use
for Diamond dye
colors, and true
FREE at your
Diamond Dye Cy
gestions and con
See actual piece
Or write for big
Craft—free—
DYES, Dept. N5

Diam
Make it Ni



Improvement
I love my hair
Remedy." (C
Sold by all
Warner's