

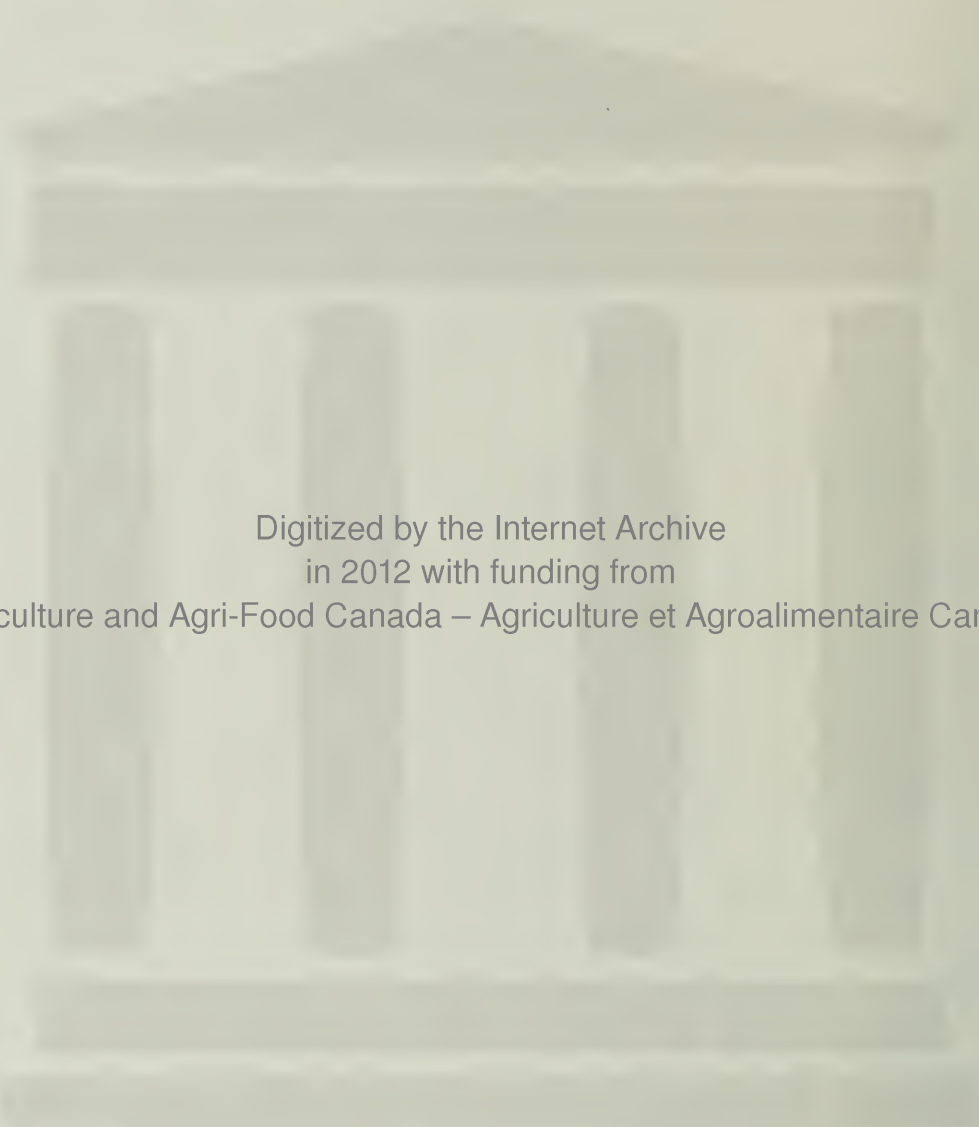


COMMON DISEASES AND AILMENTS OF SHEEP

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FOREWORD

Generally speaking, sheep operations succeed or fail depending on their standard of management; well managed flocks are profitable, poorly managed ones seldom are.

Good management simply means maintaining the animals in comfort. This requires adequate feed and water, adequate protection from the elements and predators, and the control of common diseases. Expensive buildings, rations or medication programs are not a necessity for successful flock management.

Rare diseases and conditions will always occur from time to time, but they seldom cause severe economic loss. The common diseases which can be prevented or treated often have put sheepmen out of business.

It would require a sizeable book to cover all disease conditions of sheep; this is rightly the province of the veterinarian. The following is merely a purposely brief reference to some of the commonest disease problems usually encountered in sheep raising and some of the measures available to control them, with a few added tips that may be useful to beginners.

COMMON DISEASES AND AILMENTS OF SHEEP

D.W.G. Macaskill B.V.M.S., M.R.C.V.S.

NUTRITIONAL DEFICIENCIES AND DISORDERS

Economical production of lambs and wool is contingent on maximum production per unit of feed. Maintenance of breeding stock, a large lamb crop, rapid growth, heavy weaning weights, and a heavy fleece are all based largely on adequate nutrition.

If in doubt about the quality or adequacy of your feed, check the following:

Are your ewes in good condition at breeding time at least?

(How do they compare with your successful neighbors' flocks?)

Have they plenty of milk from lambing time to weaning?

Have your agricultural representative or feed company analyze your feed for nutritional levels: It's well worth it.

An adequate diet should include water, carbohydrate, protein, minerals and vitamins. Antibiotics, though not essential, give improved growth rate and feed efficiency.

Multiple nutritional deficiencies are more likely to be encountered than a single one.

Water deficiency is most important as feed intake depends partly on water consumption. Without sufficient water ewes lose condition and milk. Snow supplies are adequate in winter, but clean water is best.

Carbohydrates (energy feeds) are seldom deficient. Where other deficiencies exist, for example, phosphorus or protein, the oversupply of feeds high in energy such as barley or corn does more harm than good.

Protein deficiency can occur on non-legume, over-ripe dry feed. Symptoms include depressed appetite, reduced growth, reduced wool growth, weak lambs, lack of milk, anemia and edema ('bottle-jaw'). Green legume hay or concentrates containing linseed or soybean meal will prevent the condition.

MINERAL DEFICIENCIES

Salt deficiency leads to chewing wood and dirt, and loss of condition. Salt should be allowed free choice.

Phosphorus is deficient in certain pastures on the prairies and elsewhere. Sheep show a phosphorus deficiency by a craving for bones, stones or wood, and lambs by rickets, lameness, bent legs and swollen joints. Phosphorus may be supplied as rock phosphate, or in a commercial mineral mix.

Iodine deficiency sometimes manifests itself in the birth of lambs with very little wool and/or goitre.

Ideally, supply a good quality (14% phosphorus) mineral mix plus iodized salt free choice.

VITAMIN DEFICIENCIES

Vitamins A, D and E are of importance. Sheep can synthesize the others in their large stomach.

Vitamin A deficiency occurs in sheep fed bleached, poor quality roughages low in carotene. Symptoms include blindness and weak or stillborn lambs. Good green leafy alfalfa or a vitamin supplement is indicated.

Vitamin D deficiency results mainly from inadequate exposure to sunlight, as in growing rams housed for long periods. Good sun-cured hay will counteract the condition.

Vitamin E deficiency may be more common. Diets high in legumes, such as alfalfa, predispose to the condition known as muscular dystrophy of lambs or 'white muscle disease'. A balanced amount of non-legume hay or wheat germ meal in the concentrate is indicated.

BLOAT

Bloat is one of the most troublesome and baffling disorders of sheep. Pasturing on legumes is far and away the most common cause but it can and does occur on dry feed. Alfalfa and any of the clovers can cause bloat. Avoid turning animals on green lush pasture when they are hungry. Pasture consisting of grasses of high fiber content along with legumes is less dangerous. A feed of cured hay may be given before going onto the pasture. Keep a careful watch on the animals at the beginning.

Treatment in severe cases requires the use of a trocar, needle, or, in emergency, a jackknife half way between the last rib and the pelvis (hip) bone on the left-hand side. Save the animal's life first; treat the wound with antibiotics by injection after!

METABOLIC DISEASES

These diseases are due to nutritional strain, chiefly related to rapidly developing unborn lambs and the resulting stress on the ewe.

Pregnancy disease (or twin-lamb disease) is a highly fatal disease affecting ewes during the last 4 weeks of pregnancy. Ewes carrying twins or triplets are most prone. Ewes on diets insufficient in amounts or quality to maintain growth of lambs are most susceptible, especially if in fat condition in early pregnancy.

Affected ewes seem not to bag out properly; they become less active, with progressive weakness becoming so marked that rising is difficult. They may wander in circles or push against objects. Finally, they cannot rise and they lie with their heads turned to one side. Nervous switching, grinding of the teeth, constipation and thirst are other probable symptoms. Ewes that abort at this stage often recover.

The disease is prevented by feeding pregnant ewes an adequate ration, such as 1 to 2 pounds of good legume hay plus 1 1/2 to 2 pints of grain a day. Sudden feeding changes should be avoided. Early cases often respond to 1/2 cup of molasses in a quart of water three times a day. Daily exercise is beneficial. The most effective treatment to date is removal of the lambs by Caesarean route as early as possible.

Lambing sickness is the same as milk fever in cattle. The symptoms correspond very closely to those of twin-lamb disease. However, lambing sickness almost invariably occurs 1 to 4 days before lambing. Differentiation is easily accomplished by the injection of 50 cc of a solution of calcium borogluconate under the skin (rub well). In lambing sickness, a spectacular recovery is usually achieved within an hour. In twin-lamb disease, there is no response. Another difference is that with lambing sickness, the onset is rapid - a healthy ewe becoming staggery, prostrate and comatose in a matter of several hours. There is no known way to prevent this condition. Dead lambs often result from recovered ewes.

LAMBING

Clean, dry pens in a warm building should be provided. Cheap temporary pens can be built of bales, but they use up a lot of space. One pen can hold two or more ewes which are due to lamb, but once the lambs are born no more than two ewes should be kept in the same pen.

It is essential to maintain a high standard of cleanliness in the lambing pens. Clean straw is adequate if changed every other day. The navels of newborn lambs should be swabbed with an antiseptic solution, such as 5 percent tincture of iodine; or fill a 'shot' glass with the solution, press it around the navel, then turn the lamb and glass upside down for a minute.

Ensure that there is a sufficient flow of milk. If lambs are weakly and the ewe carries a large distended udder, she should be milked by hand until the lambs are able to deal with it.

When a ewe has a dead lamb the simplest method of making her accept a 'set-on' is to skin the dead lamb and put the skin on the lamb to be adopted. Depending on the ewe, simpler methods are often successful, such as smearing the foster lamb in the afterbirth, or rubbing linseed oil, or even soap, on the lamb and on the ewe's nose. Always do it at once.

Turn out ewes and strong lambs, as soon as possible, into sheltered quarters; cold is less of a hazard than infection.

LAMBING TROUBLES

Common sense, more than technical knowledge, is the best weapon. Add to this a small hand (press the womenfolk into service here) and most mechanical troubles can be overcome. Always bear in mind that extreme force must not be used. Plenty of lubrication is required - either oil or soap. Scrub hands and wrists first. A ewe does not stand prolonged manipulation. If you haven't lambed her in half an hour of effort, seek professional help.

Oversized lambs rarely occur. Typically the head and forequarters are unable to enter the lambing passage simultaneously. Such cases may be lambbed, with sacrifice of the lamb, if the head alone is withdrawn and amputated. The neck can then be gently pushed back until the fore feet can be grasped and the remainder of the lamb extracted. Cover the exposed neck bones with your hand to avoid damage to ewe.

Twin lambs sometimes cause trouble. Always ensure when pulling on two feet and a head that they belong to the same lamb. When both lambs want to come at once, gentle rotation of one sometimes overcomes the trouble.

Lambs coming backwards create a problem for the herdsman. Any ewe lambing for an hour without success should be investigated manually. Frequently the lamb's tail is encountered. Gentle pressure should be applied on the lamb's rump until the fingers can locate its hocks and draw the hind legs upward into the lambing passage.

Don't use hooks, wires or other mechanical gadgets.

Ring womb, by far the commonest and most serious complication of lambing, is due to failure of the neck of the womb (cervix) to dilate. Manual examination reveals a fibrous ring 1 to 2 inches in diameter through which you can often feel the lamb. Ewes left untreated either die or eventually produce decomposed lambs. Hormone injections (available from your veterinarian) sometimes work. Often the only rational treatment is removal of lambs by Caesarean operation by your veterinarian.

PROLAPSE OF LAMBING PASSAGE

Partial prolapse (bulging out several inches) often occurs before lambing. It appears as concentric red folds. If possible do nothing provided the ewe is near lambing. If the prolapse is of significant size and appears to be getting soiled and inflamed it should be replaced as outlined below.

Complete prolapse occurs only after lambing. The womb simply turns inside out. Prompt replacement is essential. Two operators are required. The ewe is placed on her back and one man stands astride her with his back to her head and her rear off the ground, supported if necessary. Clean it as thoroughly as possible. Turn it back inside gently, following it in and down towards the udder with your hand. Insert uterine boluses or spray it, before replacement, with 20 cc of Pen-Strep. Once the womb is completely replaced 'wool knots' are sufficient to prevent further prolapse. Tease and twist several 'strings' of wool on each side of her buttocks and knot them across tightly.

INFECTIOUS DISEASES

Enterotoxemia, or pulpy kidney, is an acutely fatal disease of sheep caused by a clostridial infection of the same family of germs that causes

blackleg in cattle. It may attack an animal at any age or at any time of year, but commonly it attacks younger stock that seem to be doing well on feed or pasture. Often, an animal apparently healthy at night is found dead in the morning. Post-mortem examination always reveals a patch of inflammation on the stomach wall varying in size from that of a silver dollar to 6 inches or more in diameter. Some hemorrhages may be found on the belly muscles. The kidneys are often, but not always, pulpy. The intestines are often empty but full of gas while the stomachs are packed with feed. On occasion, affected animals may lie in a comatose condition for hours, or even days, before death. Such cases may well respond to antibiotics. Vaccination is the best prevention.

Lamb dysentery is caused by yet another clostridial infection. Lambs of from 10 days to 2 weeks are commonly affected. The onset is sudden; apparently healthy lambs suddenly develop acute diarrhea and weaken rapidly. Usually, they survive only a few hours. This is an extremely contagious disease and can spread through the whole flock with alarming rapidity. Where the disease has occurred, vaccination is recommended. In outbreaks, antiserum and antibiotics are of use. Combination clostridial vaccines are readily available to prevent these infections; use them.

Navel ill, or joint ill, is a term applied to acute infections during the first few weeks of life. Bacterial invasion of the unhealed navel at time of birth is blamed. The infection is called joint ill because it often localizes in the joints. Symptoms usually develop 6 to 7 days after birth. The animal is depressed and listless, and its respiration and temperature are above normal. If it survives, often some of its joints swell up; lameness is marked and if left untreated may be permanent. Prevention depends on good management. Treatment of navels at birth obviates the disease. Antibiotics (Pen-Strep) repeated for several days are effective in treating the disease if given early enough.

Mastitis in sheep is sometimes overlooked. Ewes should be checked both at breeding time and immediately before lambing to ensure that the udder is not infected or hard. Once both quarters are hard, treatment is useless. Acute cases where the quarters are still inflamed, respond well to antibiotics, for example, 6 to 8 cc penicillin repeated at 12-hour intervals. Watch for lame ewes! Lambs suckling ewes that have mastitis should receive antibiotics by mouth.

Orf, or contagious ecthyma, is a highly infectious virus disease causing pustular, scabby lesions on muzzle and lips. It is commonest in lambs 3 to 6 months old. Up to 90 percent of a flock is often affected. The disease causes few deaths, but lambs suffer a severe loss of condition. It can affect ewes' udders too. Mild cases recover in 3 weeks, with 2 to 3 years immunity. Removal of scabs and use of ointments or lotions only delay healing. No treatment is available, but orf can be controlled with vaccine made from suspension of scabs in glycerol saline (consult your veterinarian or provincial laboratory). Lambs should be vaccinated at 6 to 8 weeks. Immunity is not solid until 3 weeks after vaccination, but it lasts at least 2 years.

Foot rot is easily controlled with antibiotics. Treat early. Give 10 cc Pen-Strep daily for 2 days. Where it becomes a problem, feed a low level of antibiotics, such as aureomycin crumbles, in the ration. Many lame ewes have mastitis, not foot rot.

PARASITIC DISEASES

Stomach and intestinal worms may be suspected if the flock (particularly lambs) are not thriving on good pasture. Several species of worms can be responsible, and usually more than one species is present. Where stomach worms are present the main symptoms are those associated with anemia, pale gums and inner eyelids. The contents of the fourth stomach, or abomasum, are commonly stained dark red or brown. Constipation may be more common than diarrhea. With intestinal parasitism no striking changes are seen on post-mortem except for emaciation. Anemia usually is not marked. The most constant and striking symptom is a persistently watery diarrhea. Both stomach and intestinal worms can now be controlled easily. Probably the most effective treatment is the new wormer Tramisol, which virtually eliminates stomach, intestinal and lungworms. Remember, lambs get infested on pasture from worm eggs shed by the ewes. Little spread of worms occurs off pasture. One worm in one ewe can shed hundreds of thousands of infective eggs on a pasture in a season. So, ideally, treat ewes by drenching before ewes and lambs go out, and treat entire flock (ewes and lambs) after 1 to 2 months to prevent buildup from the odd worm missed.

Tapeworms are relatively harmless to sheep unless in extremely heavy infections, which are very rare. Segments are seen in the droppings. Lead arsenate in doses of 0.5 to 1.0 gm is the drug of choice.

Lungworms are parasites of the pulmonary air passages. Infection appears to be fairly widespread in Canada. Infections build up rapidly on pastures. Affected animals develop a husky cough and sometimes show a nasal discharge. Many older sheep seem to develop a degree of immunity to the worms which, though present, cause little discomfort other than the cough and shortness of breath when the animals are made to exert themselves. The irritation caused by the worms, however, frequently precipitates pneumonia due to bacterial invasion. Death often results in lambs from mechanical obstruction of the air passages by mucus and worms. Acute attacks due to allergy occasionally occur. Lungworms are readily controlled with Tramisol as outlined above. Pneumonias resulting from lungworm infestation should be treated with antibiotics.

Lungers is an incurable progressive pneumonia of older ewes. Their respiration rate becomes progressively faster, but coughing is not prominent. Eliminate affected sheep. Lungers can be diagnosed by treating with Tramisol; if there is no improvement, the sheep have lungers, not lungworms.

Keds and lice cause severe weight loss, by their irritation and sucking. Affected animals may rub themselves against posts but more often dash in among others, preventing feeding. Spray sheep regularly with recommended pesticides to prevent keds and lice.

GENERAL TIPS

Drugs by mouth are slower acting than injections, although they are fine for preventive dosing of newborn lambs with antibiotics (use baby-pig preparations). Be careful when drenching; metal dosing guns and drenching



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bottles can easily cut the mouth and throat causing serious infections.

For fast treatment with antibiotics, inject intramuscularly into the most meaty parts (buttocks or neck), avoiding joint areas. Inject at least 1 inch into flesh. Use 10 cc penicillin-streptomycin or 4 cc injectable terramycin for adult sheep, with proportionately less for lambs. Repeat for 2 to 3 days.

Always disconnect and boil your syringe and needles for 20 minutes after use. You might not have time before use.

Castrate and dock in first week. Use Burdizzo castrator correctly for effective job and less danger of infection. Nip each cord twice 1/2 inch apart using merely edge of castrator and squeezing cord to outside edge of scrotum. Don't nip across entire width of scrotum. Nip tail at required length and cut off with sharp knife inside Burdizzo castrator.



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